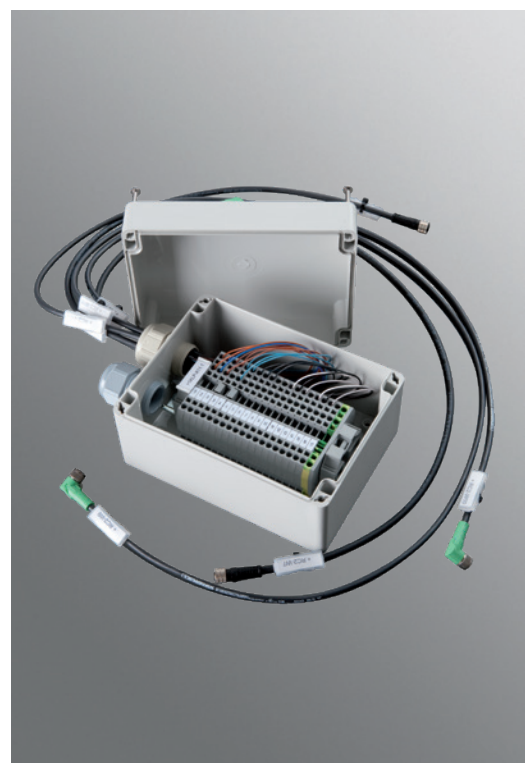




**Complete Range
Enclosure Systems**



BERNSTEIN AG – A Success Story



Safety for man and machine

BERNSTEIN AG ranks among the world's leading providers of industrial safety technology. With our comprehensive range of switches, sensors, enclosures, suspension systems and other components for industrial applications, we offer our customers effective and versatile solutions.

In-depth market knowledge, the close proximity to end users as well as years of experience in mechanical engineering and electronics are reflected down to the last detail in our products.

By conforming to international safety guidelines, our products perfectly integrate in individual system solutions. Our focus is complete commitment to safety for man, machine and industrial processes.

Our expertise for your safety

With sound application expertise we support our customers from all branches of industry in the planning and implementation of systems designed to meet stringent safety requirements. In addition to classic plant and machine construction, we look after customers in the lift construction, automotive, agriculture, conveyor construction, automation engineering, wood-working, renewable energy, AS-Interface and EX.

Our knowledge is your success



GERMANY
Porta Westfalica
BERNSTEIN
BUSINESS CENTER



GERMANY
Hille-Hartum



EUROPE
Budapest (Hungary)
BERNSTEIN Kft.



ASIA
Taicang (China)
BERNSTEIN Safe Solutions

Our philosophy

Customer Satisfaction is our number one priority. For us, Quality is more than making a good product, it's about designing them to perfectly match ALL of your needs.

Customized Solutions are fully integrated into our business and form part of our everyday working life. Employees are treated as our greatest asset as they are responsible for the quality and success of our products. All BERNSTEIN TEAM members are trained and educated to the highest possible standard so they can deliver "Best in Class" Service and Support. The BERNSTEIN TEAM will support you both personally and professionally, working together we will provide you with the best Safe Solution – for any size of project.

Future-proof solutions

Our objective is to actively influence technical innovation and modern application solutions. BERNSTEIN has therefore always been at the centre of defining trends in technology. With an unwavering commitment to the future we will continue providing the best possible answers in terms of technology, ecology and economic efficiency.

That is our definition of progress!

BERNSTEIN AG

The Product Lines

Switch system



Switch system – Economy meets safety

BERNSTEIN electromechanical switches offer a convincing price/performance ratio and impress with their extreme reliability for many different operating voltages. The range extends from limit switches, encapsulated in insulating material or metal, through foot switches to safety switching devices. The AS-i compatible products save time and material in installation and provide cost advantages in operation. The comprehensive range of designs and sizes, the possible switching functions and the choice of actuators make virtually any application reality.

Sensor systems



Sensor systems – Compact intelligence

The extremely fast and exceptionally precise BERNSTEIN sensors operate without interference and wear in all applications. The tried-and-tested reliability and the compact dimensions are greatly appreciated in all branches of industry. Matching the specific application, in addition to ultrasonic sensors and level switches, customers can choose from a wide range of inductive, capacitive, magnetic or optical sensors. Alongside the comprehensive standard range of sensors, we also offer comprehensive development and design for individual solutions.

Enclosure systems



Enclosure systems – Function and design

With its long tradition in manufacturing enclosures, BERNSTEIN combines superior enclosure technology, designed for encapsulating a diverse range of applications, with ultramodern and variable suspension systems. An extensive range of aluminium and plastic terminal boxes as well as the wiring and circuitry in standard and control enclosures conforming to specific customer requirements round off the product portfolio. Our enclosures conform to standards used in medical technology, industry as well as food and EX applications.

Product Line Enclosure Systems



Enclosure systems – Function and design

Functional design, high quality and durability are essential prerequisites for effective system integration. We incorporate customised wiring and specific component configurations in our expanded enclosure production process, which includes the preassembly of mounting rails or the installation of PLC/IPS solutions of all renowned manufacturers. In cooperation with our customers, this extremely pragmatic project planning results in fast and exceptionally reliable solutions.

In the modular aluminium control enclosure systems we combine state-of-the-art design with outstanding technical features to individually and efficiently encapsulate industrial controllers and operator panels. Our extensive range of suspension systems perfectly enhance this product portfolio.

The same meticulous attention to detail is reflected in our range of stainless steel control enclosures. These products are ideally suited for applications where the use of stainless steel is essential on account of special requirements and ambient conditions. With special sizes, different surface finishes and the comprehensive range of stainless steel suspension systems we offer unlimited scope for individualisation.

All state-of-the-art BERNSTEIN suspension systems are characterised by variable layout, advanced design and ease of installation.

Integrated diversity

Modern industrial design, perfected ergonomics and a host of combinable components create innovative system solutions based on modular principles. BERNSTEIN standard enclosures with quick-release fasteners, flexible internal articulated hinges and international approvals give our customers ample scope in the choice of enclosures best suited for their specific application.

With a range of materials such as plastic, metal and stainless steel, BERNSTEIN has the ideal solution for all applications. Backed by our quality manufacturing guarantee we will do whatever it takes to make sure that BERNSTEIN enclosures provide the perfect solution.

Services and standards

- Bespoke solutions
- Lower costs thanks to all-encompassing system
- Supply of complete systems and their project integration
- System components procured by BERNSTEIN
- Compliance with applicable product and industrial standards
- International approvals

System solutions/EX

Type Page



BERNSTEIN 12
System solutions
Comprehensive range of services from BERNSTEIN enclosure systems



EX 14
EX-approved products for potentially explosive atmospheres

Selection criteria and general technical information on enclosures 18
(IP classification, chemical resistance, etc.)

Standard enclosures

Type Page

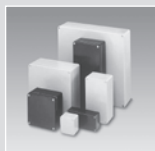


Aluminium enclosures 26
Type CA
• High mechanical loading capacity
• High corrosion resistance
• IP66
• Accessories
• Assembly, aluminium enclosures



Polycarbonate enclosures 46
Type CT
• Medium mechanical loading capacity
• Conditional suitability, for outdoor use
• IP65
• Accessories
• Assembly, polycarbonate and ABS enclosures

ABS enclosures
Type CT
• Low mechanical loading capacity
• Limited suitability for outdoor use
• IP65
• Accessories



Polyester enclosures 60
Type CP
• High mechanical loading capacity
• Very high corrosion resistance
• Excellent suitability for outdoor use
• IP66
• Accessories

Control enclosures

Type Page

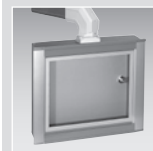
Overview 72
**Aluminium-
Control enclosures**



Control enclosures 74
Type CC-5000 neXt
• Modular aluminium enclosure concept
• Direct installation of commercially avlb. controllers
• Different front panel installation options
• Customer-specific dimensions



Control enclosures 78
Type CC-4000/CC-4000 SL
• Modular aluminium enclosure concept
• Direct installation of commercially avlb. controllers
• Different front panel installation options
• Customer-specific dimensions
• Stand



Light-duty control enclosures 82
Type CC-3000
• Modular, flat aluminium slimline concept
• Direct installation of commercially avlb. controllers
• Different front panel installation options
• Customer-specific dimensions

Accessories 86
Control enclosures

Checklists 94

Free-standing column CS-4000 neXt



Type Page

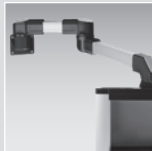
Free-standing column 104 CS-4000 neXt

- Ideal combination of ergonomic visualization and optimal integration of operating and input devices
- Flexible concept for tailor-made solutions

Suspension systems

Type Page

Selection criteria 114 for suspension systems



Light-duty suspension system 116 Type CS-2000 SL 45/60

- Modular suspension system concept in two colours for light mechanical loads
- Alum. connecting sections with/without cable duct
- Installation openings at joints

CS-3000 Family 129



Light-duty suspension system 132 Type CS-3000 neXt

- Modular suspension system concept for light mechanical loads
- Anodised aluminium tubing as connecting element and cable duct
- Installation openings at joints



Medium-duty suspension system 142 Type CS-3000

- Modular suspension system concept for medium mechanical loads
- Anodised aluminium tubing as connecting element and cable duct
- Installation openings at joints

Accessories 155 CS-3000 Family



Heavy-duty suspension system 156 Type CS-2000 System 80

- Modular suspension system concept for heavy mechanical loads
- Steel tubing as connecting element and cable duct
- Installation openings at joints

Accessories for 166 suspension CS-2000 SL and System 80

Stainless steel range



Type Page

Suspension system for 168 light to medium loads Type CS-480 NR

- Material 1.4305
- Protection class IP66

BERNSTEIN System Solutions

Expertise from under one roof

Comprehensive range of services from BERNSTEIN enclosure systems

BERNSTEIN specialises in products that reliably protect your technical equipment from damage, the environment or unauthorised access.

Bespoke, individually designed system solutions are based on tried-and-tested enclosure technology combined with BERNSTEIN suspension systems.

Tailored wiring and the installation of components can now be integrated directly in the expanded enclosure production process.

Starting with the preassembly of mounting rails and terminals through cable configuration to component mounting and complete wiring in the enclosure.

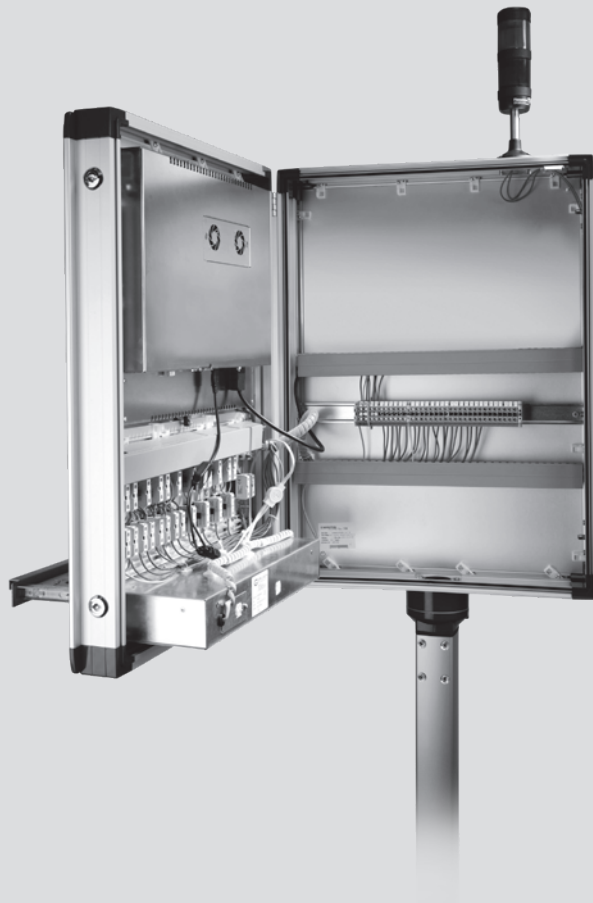
BERNSTEIN – Your solution specialist.

New system integration approaches such as the installation and preassembly of:

- Power supply systems
- Operating and control elements
- Membrane keypads
- Displays, power supply and data cables
- I/O assemblies
- Ethernet components
- PLC/IPC solutions of all renowned manufacturers

Your benefits:

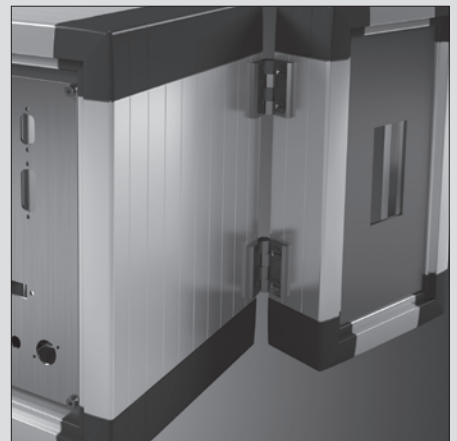
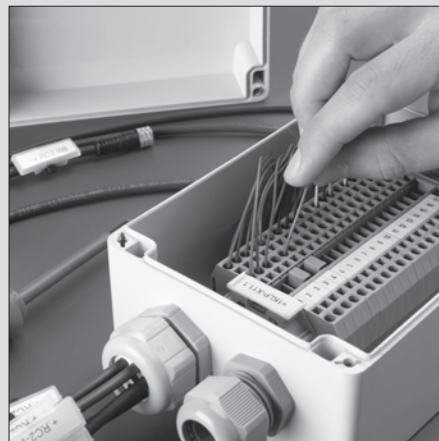
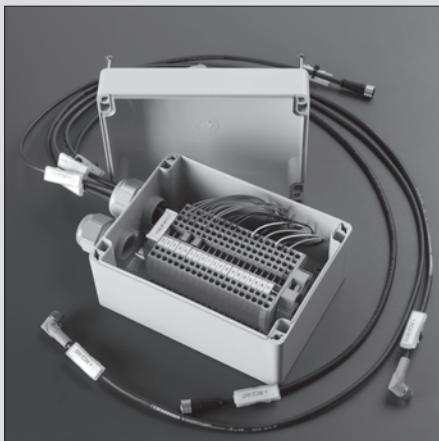
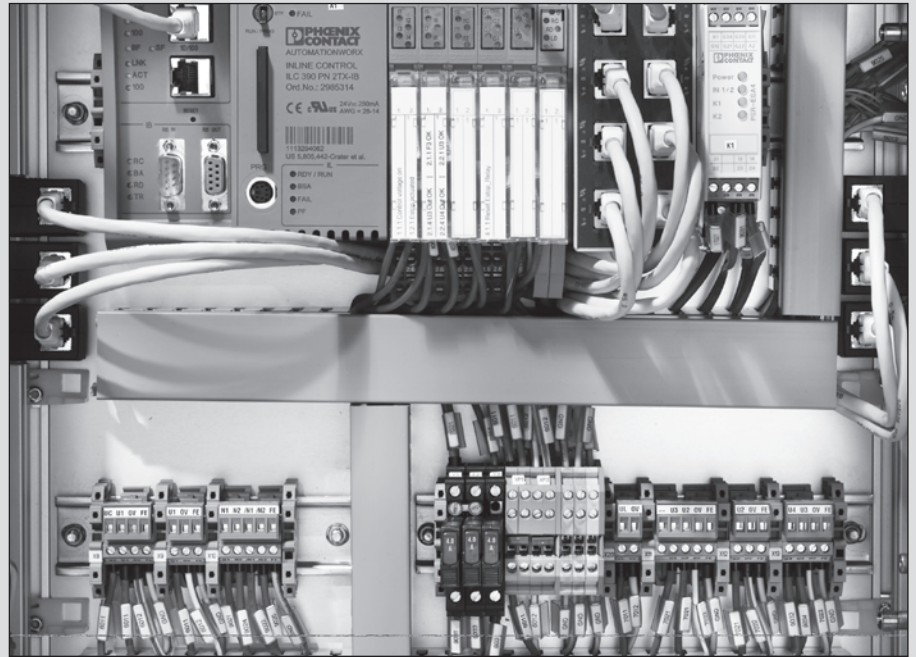
- **Solution specifically tailored** to customer requirements
- System solution phased directly into production process
- Compliance with **applicable product and industrial standards** (EX, IP-classes)
- Administration expenditure and costs reduced by
 - **Purchase and stock keeping** of components by BERNSTEIN
 - No residual quantities of individual components
 - Use of standard components
 - No costs incurred for **assembling individual components** – delivery of complete systems
 - Acceptance of part projects by BERNSTEIN, therefore, reduced assembly and component mounting costs
- **Integration** of BERNSTEIN switch and sensor systems
- System components procured by BERNSTEIN



Combination of BERNSTEIN enclosures and customer technologies

As a solution specialist, BERNSTEIN has available core expertise in mechanical applications and a comprehensive range of tools to suit the most diverse configuration requirements.

- **Customised enclosure modifications, freely selectable dimensions and configurations created by:**
 - Holes
 - Threads
 - Apertures
 - Pre-punched blanks
- **Preassembly, mounting and wiring of:**
 - Mounting panels and support rails
 - Hinges and mounting brackets
 - Terminals and screwed cable glands
 - Circular connectors
- **Individual powder coating also available in special colours in own production process**



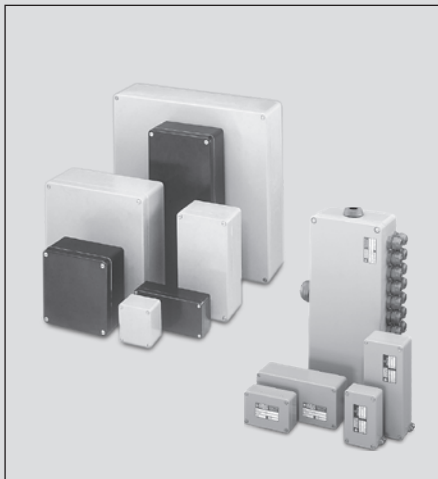
EX

EX-approved products for potentially explosive atmospheres

- Ex e, Ex ia and Ex e/ia terminal boxes made from polyester and aluminium
- Ex d / Ex tb limit switches, rope pull switches and foot switches
- Ex mb / Ex tb magnetic switches
- Ex ib inductive Namur sensors



Services, training, system solutions, project- and customer-specific solutions.



Terminal enclosures and empty enclosures

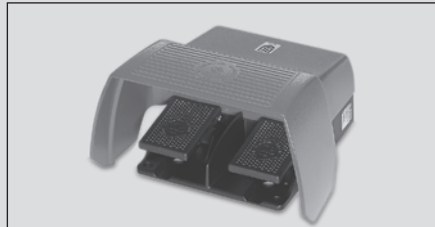
Only materials that correspond to the temperature range required for Ex enclosures are used in these enclosures and components.

The minimum type of protection rating of all enclosures and screw connections is IP64, other protection classes available on request.

The latching devices on the enclosures are available as captive screw connections.

Various CA versions are available with flange plates.

All built-in components must conform to the relevant approvals.



Momentary contact, cable pull and foot switches

An Ex d-certified switching element lies at the core of these Ex-approved switches.

It is mounted in the corresponding switch enclosures. The mechanical actuator and its installation are certified separately.

The approval of additional actuators and switch enclosures from other series is possible on request.

All switches and momentary contact switches feature one NO contact and one NC contact.



Magnetic switches, inductive Namur sensors

For magnetic switches, protection against ignition energy is achieved by encapsulation. For Inductive Namur sensors, protection is achieved by the principle of intrinsic safety.

Magnetic switches and Namur sensors have a Factory fitted connection cable.











This cable is permanently attached to the body and forms part of the approval.

All sensors are certified for a surface temperature of + 80 °C.

Services offered by the BERNSTEIN-EX experts:

- Approval of a stainless steel enclosure with freely definable dimensions
- Approvals assistance for plant operators
- Approval of switching and control elements in all enclosures
- Approval of plug-in devices in all enclosures
- Component mounting and wiring of enclosures according to customer specifications
- Training courses for planners and plant operators
- Cross-product system solutions
- Customer-specific development and project management on request
- TR (EAC) and NEC (North America) approvals on request
- Approval according to IEC Ex on request

Explosion protection at a glance

|  | II2G | Ex | ia | IIC | T6 | TÜV | 2008 | ATEX | 1234 | – |
|---|--|---|---|--------------|----------------------|-------------------------------------|-------|--|--------------------|-------------------------------|
| Type approval to directive 2014/34/EU | Application | Explosion protection | Type of protection | Device group | Temperature class | Inspection authority | Year | As per directive 2014/34/EU | Consecutive number | Additional conditions |
| Protection Concept | | | | | | | | | | |
| Symbol | | Type of protection | | | | | | | Standards | |
|  | Ex “d” | Flameproof encapsulation Switching devices, motors, transformers etc. IEC60079-1 | | | | | | | IEC / EN 60079-1 | |
|  | Ex “p” | Pressurised encapsulation Control cabinets px = Use in Zone 1, 2 py = Use in Zone 1, 2 pz = Use in Zone 2 pb = Use in Zone 21, 22 pc = Use in Zone 22 | | | | | | | IEC / EN 60079-2 | |
|  | Ex “q” | Powder-filled encapsulation Transformers, capacitors | | | | | | | IEC / EN 60079-5 | |
|  | Ex “o” | Oil immersion encapsulation Transformers, load resistors | | | | | | | IEC / EN 60079-6 | |
|  | Ex “e” | Increased safety Terminal boxes, control cabinets, enclosures for installing devices of other protection class | | | | | | | IEC / EN 60079-7 | |
|  | Ex “i” | Intrinsically safe Terminal boxes, control cabinets, sensors, measurement and control equipment ia = Use in Zone 0, 1, 2, 20, 21, 22 ib = Use in Zone 1, 2, 21, 22 | | | | | | | IEC / EN 60079-11 | |
| | | Intrinsically safe systems | | | | | | | IEC / EN 60079-25 | |
|  | Ex “n” | Non sparking Systems that, due to their design, cannot spark | | | | | | | IEC / EN 60079-15 | |
|  | Ex “m” | Encapsulation Command and signalling devices, sensors, display/indicator devices ma = Use in Zone 0, 1, 2, 20, 21, 22 mb = Use in Zone 1, 2, 21, 22 | | | | | | | IEC / EN 60079-18 | |
| | Ex “op” | Optical radiation op is = Intrinsically safe optical radiation op pr = Protected optical radiation op sh = Shutdown optical radiation | | | | | | | IEC / EN 60079-28 | |
|  | Ex „t“ | Protection by enclosure Switching devices, Terminal boxes, control cabinets ta = Use in Zone 20, 21, 22 tb = Use in Zone 21, 22 tc = Use in Zone 22 | | | | | | | IEC / EN 60079-31 | |
| IP Protection Classes | | | | | | | | | | |
| IP 1st digit | Contact | Foreign bodies | | | IP 2nd digit | Water | | Max. permissible surface temperature | | Temperature classes for gases |
| 0 | No protection | No protection | | | 0 | No protection | | 450° | | T1 |
| 1 | Large body parts | Solid object > 50 mm | | | 1 | Water dripping vertically | | 300° | | T2 |
| 2 | Finger | Solid object > 12.5 mm | | | 2 | Water dripping at angle up to 15° | | 200° | | T3 |
| 3 | Tool > 2.5 mm | Solid object > 2.5 mm | | | 3 | Water sprayed at an angle up to 60° | | 135° | | T4 |
| 4 | Tool > 1 mm | Solid object > 1 mm | | | 4 | Spayed water 360° | | 100° | | T5 |
| 5 | Complete protection | Dust accumulation | | | 5 | Hose water 360° | | 85° | | T6 |
| 6 | Complete protection | Dust infiltration | | | 6 | Strong hose water 360° | | Explosion groups for gases | | |
| | | | | 7 | Temporary submersion | | Group | Typical gas | Ignition energy | |
| | | | | 8 | Submersion | | I | Methane | 280 µJ | |
| Device group I Mining | | | | | | | | IIA | Propane | > 180 µJ |
| I M1 | Safety provided by 2 safety measures, 2 faults | | | | | | | IIB | Ethylene | 60...180 µJ |
| I M2 | Shutdown on occurrence of explosive atmosphere | | | | | | | IIC | Hydrogen | < 60 µJ |
| Device group II All potentially explosive atmospheres except mining | | | | | | | | Explosion groups for dusts | | |
| II 1 | Zone 0 | Zone 20 | Safety provided by 2 safety measures, 2 faults | | | | Group | Dust | | |
| II 2 | Zone 1 | Zone 21 | Safety in the event of frequent equipment malfunctions, 1 fault | | | | IIIA | combustible flyings | | |
| II 3 | Zone 2 | Zone 22 | Safety in trouble-free operation | | | | IIIB | non-conductive dust | | |
| | | | | | | | IIIC | conductive dust | | |
| Zone categories, device group II | | | | | | | | Additional conditions | | |
| Hazard | | | Gas as per IEC / EN | | Dust as per IEC / EN | | – | No restriction | | |
| permanent or frequent | | | Zone 0 | | Zone 20 | | X | Special conditions | | |
| occasional | | | Zone 1 | | Zone 21 | | | | | |
| rare, temporary no longer than 30 min per year | | | Zone 2 | | Zone 22 | | U | Component certification Parts certification | | |

Empty enclosures for use in potentially explosive atmospheres

EX-U certified empty aluminium CA enclosures

BERNSTEIN CA enclosures have been tested by an internationally recognised and certified inspection authority and certified through type approval testing for use in areas with potentially explosive dust and gas atmospheres. Used as terminal and control enclosures, the aluminium pressure die-cast enclosures are designed to accept corresponding mechanical and electrical equipment. The enclosures come with operating instructions, type identification plate and CE Declaration of Conformity. Either an EPDM or silicone seal can be used. The enclosures can be fitted at the factory with external hinges.

| External dimensions in mm | Type | Art. No. with silicone seal | Art. No. with EPDM seal |
|---------------------------|--------|-----------------------------|-------------------------|
| 58 x 64 x 36 | CA-060 | 1064005000 | 1064000000 |
| 98 x 64 x 36 | CA-080 | 1084005000 | 1084000000 |
| 150 x 64 x 36 | CA-100 | 1104005000 | 1104000000 |
| 75 x 80 x 57 | CA-130 | 1134005000 | 1134000000 |
| 125 x 80 x 57 | CA-150 | 1154005000 | 1154000000 |
| 175 x 80 x 57 | CA-170 | 1174005000 | 1174000000 |
| 250 x 80 x 57 | CA-190 | 1194005000 | 1194000000 |
| 122 x 122 x 80 | CA-210 | 1214005000 | 1214000000 |
| 122 x 122 x 90 | CA-215 | 1214005050 | 1214000050 |
| 122 x 122 x 80 | CA-220 | 1224005000 | 1224000000 |
| 220 x 122 x 80 | CA-230 | 1234005000 | 1234000000 |
| 220 x 122 x 90 | CA-235 | 1234005050 | 1234000050 |
| 220 x 122 x 80 | CA-240 | 1244005000 | 1244000000 |
| 360 x 122 x 80 | CA-250 | 1254005000 | 1254000000 |
| 160 x 160 x 90 | CA-270 | 1274005000 | 1274000000 |
| 160 x 160 x 90 | CA-280 | 1284005000 | 1284000000 |
| 260 x 160 x 90 | CA-290 | 1294005000 | 1294000000 |
| 260 x 160 x 90 | CA-300 | 1304005000 | 1304000000 |
| 360 x 160 x 90 | CA-310 | 1314005000 | 1314000000 |
| 560 x 160 x 90 | CA-330 | 1334005000 | 1334000000 |
| 200 x 230 x 110 | CA-350 | 1354005000 | 1354000000 |
| 200 x 230 x 180 | CA-360 | 1364005000 | 1364000000 |
| 280 x 230 x 110 | CA-370 | 1374005000 | 1374000000 |
| 330 x 230 x 110 | CA-380 | 1384005000 | 1384000000 |
| 330 x 230 x 180 | CA-390 | 1394005000 | 1394000000 |
| 400 x 230 x 110 | CA-400 | 1404005000 | 1404000000 |
| 600 x 230 x 110 | CA-420 | 1424005000 | 1424000000 |
| 402,5 x 310 x 110 | CA-450 | 1454005000 | 1454000000 |
| 402,5 x 310 x 180 | CA-460 | 1464005000 | 1464000000 |
| 600 x 310 x 110 | CA-470 | 1474005000 | 1474000000 |
| 600 x 310 x 180 | CA-480 | 1484005000 | 1484000000 |

Technical Data:

- Protection class IP66 to IEC/EN 600079-0, IEC/EN 60529
- Ex-Identification
 - Ex II 2G Ex eb IIC Gb
 - Ex II 2D Ex tb IIIC Db
- Impact strength > 7 Joules
- Operating temperature depending on type of seal max. -55 °C to +135 °C
- Enclosure colour RAL 7001 (silver grey)
- Powder-coating corrosion protection
- Certificates:
 - IBExU 16 ATEX 1130 U
 - IECEx IBE 15.0025U
 - TS RU S-DE GB06.W.00375 (EAC)

EX-U certified empty polyester CP enclosures

BERNSTEIN CPG and CPS enclosures have been tested by an internationally recognised and certified inspection authority and certified through type approval testing for use in areas with potentially explosive dust and gas atmospheres. Used as terminal and control enclosures, the glass-fibre reinforced polyester enclosures are designed to accept corresponding mechanical and electrical equipment. The enclosures come with operating instructions, type identification plate and CE Declaration of Conformity. Either an EPDM or silicone seal can be used. The enclosures can be fitted at the factory with external hinges.

| External dimensions in mm | Type | Art. No. with silicone seal | Art. No. with EPDM seal |
|---------------------------|---------|-----------------------------|-------------------------|
| 80 x 75 x 55 | CP-140 | 4144005000 | 4144000000 |
| 80 x 75 x 75 | CP-145 | 4144005050 | 4144000050 |
| 110 x 75 x 55 | CP-150 | 4154005000 | 4154000000 |
| 110 x 75 x 75 | CP-155 | 4154005050 | 4154000050 |
| 160 x 75 x 55 | CP-170 | 4174005000 | 4174000000 |
| 160 x 75 x 75 | CP-175 | 4174005050 | 4174000050 |
| 190 x 75 x 55 | CP-190 | 4194005000 | 4194000000 |
| 190 x 75 x 75 | CP-195 | 4194005050 | 4194000050 |
| 122 x 120 x 90 | CP-220 | 4224005000 | 4224000000 |
| 220 x 120 x 90 | CP-240 | 4244005000 | 4244000000 |
| 160 x 160 x 90 | CP-280 | 4284005000 | 4284000000 |
| 260 x 160 x 90 | CP-300 | 4304005000 | 4304000000 |
| 360 x 160 x 90 | CP-320 | 4324005000 | 4324000000 |
| 560 x 160 x 90 | CP-330 | 4334005000 | 4334000000 |
| 255 x 250 x 120 | CP-370 | 4374005000 | 4374000000 |
| 400 x 250 x 120 | CP-400 | 4404005000 | 4404000000 |
| 400 x 405 x 120 | CP-450 | 4454005000 | 4454000000 |
| 400 x 405 x 165 | CP-460* | 4464005000* | 4464000000* |

| Type | Art. No. with silicone seal | Art. No. with EPDM seal |
|---------|-----------------------------|-------------------------|
| CPS-140 | 5144005000 | 5144000000 |
| CPS-145 | 5144005050 | 5144000050 |
| CPS-150 | 5154005000 | 5154000000 |
| CPS-155 | 5154005050 | 5154000050 |
| CPS-170 | 5174005000 | 5174000000 |
| CPS-175 | 5174005050 | 5174000050 |
| CPS-190 | 5194005000 | 5194000000 |
| CPS-195 | 5194005050 | 5194000050 |
| CPS-220 | 5224005000 | 5224000000 |
| CPS-240 | 5244005000 | 5244000000 |
| CPS-280 | 5284005000 | 5284000000 |
| CPS-300 | 5304005000 | 5304000000 |
| CPS-320 | 5324005000 | 5324000000 |
| CPS-330 | 5334005000 | 5334000000 |
| CPS-370 | 5374005000 | 5374000000 |
| CPS-400 | 5404005000 | 5404000000 |
| CPS-450 | 5454005000 | 5454000000 |

*Protection class IP65

Technical Data:

- Protection class IP66 to IEC/EN 60079-0, IEC/EN 60529
- Ex-Identification
 - ⊕ II 2G Ex eb IIC Gb
 - ⊕ II 2D Ex tb IIIC Db
- Impact strength > 7 Joules
- Operating temperature depending on type of seal max. -55 °C to +135 °C
- Enclosure colour RAL 7000 (squirrel grey) CPG
- Enclosure colour RAL 9005 (jet black) CPS
- Certificates:
 - IBExU 16 ATEX 1197 U
 - IECEX IBE 16.0036U
 - TS RU S-DE GB06.W.00375 (EAC)

General Technical Information

Enclosure selection criteria

The following questions are designed to help you find the optimum enclosure for your specific application. In addition to the given criteria, your individual requirements are also of decisive importance.

1. How big should the enclosure be?

- PC-board size
- Number of terminals
- Number of screwed cable glands per side
- etc.

2. What ambient conditions should be taken into account?

- Moisture
- Climatic conditions
- Temperature
- Chemical exposure in the form of cleaning agents, oils, lubricants, etc.
- Electromagnetic compatibility
- etc.

3. What mechanical loads will the enclosure be subjected to?

- Impact
- Pressure
- Bending
- etc.

4. What additional features are required?

- Special coating:
Special colour, special finish (chromalizing, EMC protective paint, etc.), screenprint and labels etc.
- Connectors
- Screw connections (number per side)
- Inspection window
- Preassembly with mounting panel, mounting rails, terminals, external and internal articulated hinges, etc.
- etc.

5. What other components can be installed for you?

- Power supply systems
- Operating and control elements
- Membrane keypads
- Displays, power supply and data cables
- I/O assemblies
- Ethernet components
- PLC/IPC solutions of all renowned manufacturers
- etc.

You will find further details in Section "System Solutions" from Page 12 onwards.

6. Which type of approval do you need?

You find all current approvals on www.bernstein.eu

7. What else can we install for you?

Talk to us. We will help you realise your challenge.

Definition of Protection Classes in accordance with IEC 60529, VDE 470 T 1

The protection class of an enclosed device denotes the degree of protection. The degree of protection includes the protection of persons against contact with parts under voltage and the protection of equipment against the infiltration of foreign bodies and water. BERNSTEIN standard enclosures largely correspond to protection class IP65.

Protection class designation

In accordance with DIN EN 60529 the protection class designation consists of a two-digit code.

Meaning of 1st digit:

Protection class against contact and infiltration of foreign bodies

Meaning of 2nd digit:

Protection class against infiltration of water

Example: Protection class IP65

1. Digit (6):

Complete protection against contact with components under voltage or with internal moving parts = protection against dust infiltration

2. Digit (5):

A water jet directed from all directions at the enclosure must not have damaging effects = protection against water jets (hoseproof)

| Foreign body protection | | | Moisture protection | | |
|-------------------------|---|--|-----------------------|--|--|
| 1 st digit | Meaning | Explanation | 2 nd digit | Meaning | Explanation |
| IP0X | No protection | | IPX0 | No protection | |
| IP1X | Protection against foreign bodies with a diameter of 50 mm or greater | Solid object (sphere, Ø 50 mm) must not fully penetrate | IPX1 | Protection against dripping water | Vertically falling droplets must not have a damaging effect |
| IP2X | Protection against foreign bodies with a diameter of 12.5 mm or greater | Solid object (sphere, Ø 12.5 mm) must not fully penetrate | IPX2 | Protection against dripping water when the enclosure is tilted at an angle of up to 15° | Vertically falling droplets must not have a damaging effect when the enclosure is tilted at an angle of up to 15° either side of the perpendicular |
| IP3X | Protection against foreign bodies with a diameter of 2.5 mm or greater | Solid object (sphere, Ø 2.5 mm) must not fully penetrate | IPX3 | Protection against spray water | Water sprayed at an angle of up to 60° either side of the perpendicular must not have a damaging effect |
| IP4X | Protection against foreign bodies with a diameter of 1 mm or greater | Solid object (sphere, Ø 1 mm) must not fully penetrate | IPX4 | Protection against splash water | Water sprayed against the enclosure from any direction must not have a damaging effect |
| IP5X | Protection against harmful dust deposits | Dust penetration is not completely prevented. However, the amount of penetration must not impair the function or safety of the device. | IPX5 | Protection against hose water | Water sprayed in jet from against the enclosure from any direction must not have a damaging effect |
| IP6X | Protection against dust penetration, dustproof | No penetration of dust at a negative pressure of 20 mbar in the enclosure | IPX6 | Protection against strong hose water | Water sprayed in strong jet from against the enclosure from any direction must not have a damaging effect |
| | | | IPX7 | Protection against the effect when temporarily submerged in water | Water must not enter in harmful quantities when the enclosure is submerged under standardised pressure and time conditions |
| | | | IPX8 | Protection against the effects of continuous immersion in water | Water may not ingress in a volume that would cause harmful effects when the shell is continuously submerged in water under conditions agreed between manufacturer and user . The conditions must, however, be more difficult than those for code number IPX7. |
| | | | IPX9K | Protection against water during high pressure/steam jet cleaning (as per DIN EN 40050, Part 9) | Water sprayed at greatly increased pressure against the enclosure from any direction must not have a damaging effect |

General Technical Information

Mechanical strength

Selection is based on the corresponding properties of the material to be used.
The table below provides an overview of the main material properties of aluminium, polycarbonate, ABS, polyester and stainless steel.

| Material property | Standard | Unit | Aluminium | Polycarbonate | ABS | Polyester | Stainless steel |
|--------------------------------------|-----------|-----------------------|-----------|--------------------|----------------------|----------------------|-----------------|
| Density | DIN 53479 | g/cm ³ | 2.65 | 1.2 | 1.05 | 1.8 | 7.9 |
| Impact resistance | DIN 53453 | mJ/mm ² | 150 – 300 | 65 | 60 | 80 | |
| Toughness | DIN 53453 | mJ/mm ² | 90 – 200 | 20 | 10 | 4 | |
| Tensile strength | DIN 53455 | N/mm ² | 180 – 300 | 65 | 43 | 45 | 500 – 700 |
| Elongation of break | DIN 53455 | % | 60 – 90 | 90 | 20 | 20 | < 60 |
| Modulus of elasticity (bending test) | DIN 53457 | N/mm ² | 75000 | 2300 | 2100 | 6500 | 200000 |
| Flexural stress at given strain | DIN 53452 | N/mm ² | | 95 | 90 | 100 | |
| Flammability | UL 94 | Class | | V 2 | HB | V 0 | |
| Volume resistivity | DIN 53482 | Ohm x cm | | 10 ¹⁵ | 10 ¹³ | 3 x 10 ¹⁴ | |
| Surface resistance | DIN 53482 | Ohm x cm | | ≥ 10 ¹⁵ | 4 x 10 ¹⁴ | > 10 ¹² | |
| Dielectric strength | DIN 53481 | kV/mm | | 25 – 40 | 24 | 25 – 40 | |
| Thermal conductivity (20°C) | DIN 52612 | W/mK | 120 – 160 | 0.21 | 0.18 | 0.25 | 16.3 |
| Electrical conductivity (20°C) | | m/Ohm mm ² | 15 – 22 | | | | |

Chemical resistance

The table below provides an overview of the chemical resistance of BERNSTEIN aluminium, polycarbonate, ABS, polyester and stainless steel enclosures to chemicals commonly used. The specified values are reference values relating to different concentrations and ambient temperatures that have varying influences on materials. This also applies to simultaneous exposure to several chemicals. Corresponding trials are therefore recommended.

All tests were carried out at room temperature. The chemical resistance may change in combination with different media. Therefore, no responsibility can be accepted for the correctness of this information.

| Chemical | ABS | Polycarbonate | Polyester | Aluminium | Stainless steel |
|--|----------|---------------|-----------|-----------|-----------------|
| Acetone | – | – | – | + | + |
| Formic acid | 40% | – | + | o | + |
| Ammonia | 25% | – | – | + | □ |
| Benzine | – | o | + | + | + |
| Benzene | – | – | + | + | + |
| Brake fluid | o | – | + | □ | (+) |
| Butane | + | + | + | + | (+) |
| Butanol | □ | □ | + | □ | (+) |
| Calcium chloride | + | + | + | + | o |
| Chlorobenzene | – | – | + | + | + |
| Diesel oil | + | o | + | □ | (+) |
| Acetic acid | 25% | 10% | 5% | + | + |
| Formaldehyde | 30% | □ | 30% | + | + |
| Freon 113 | – | + | + | □ | □ |
| Fruit juice | + | + | + | □ | + |
| Glycerine | + | o | + | + | + |
| Fuel oil | o | o | + | + | + |
| Hydraulic oil | □ | + | + | □ | + |
| Caustic potash solution | 50% | – | – | □ | □ |
| Potassium chloride | □ | + | + | o | o |
| Potassium hydroxide | < = 50 % | □ | 5% | – | + |
| Linseed oil | + | + | + | + | + |
| Methanol | + | – | + | + | + |
| Methylene chloride | – | – | + | + | □ |
| Lactic acid | 80% | + | + | + | o |
| Mineral oils | + | + | + | □ | + |
| Engine oils | + | + | + | □ | + |
| Sodium carbonate | + | + | 10% | o | + |
| Sodium chloride | + | + | + | o | + |
| Sodium hydroxide | + | □ | 5% | + | + |
| Caustic soda | 50% | – | 40% | □ | □ |
| Nitric acid | – | 10% | 10% | + | + |
| Hydrochloric acid | o | 20% | + | + | – |
| Lubricating oil | □ | + | + | + | + |
| Carbon disulphide | – | – | – | + | + |
| Sulphuric acid | 50% | 50% | 10% | o | + |
| Soap solution | □ | o | + | □ | □ |
| Detergent | □ | + | □ | □ | (+) |
| Turpentine oil | □ | o | + | □ | + |
| Carbon tetrachloride | – | – | + | + | + |
| Toluene | – | – | + | + | □ |
| Trichloroethylene | – | – | + | + | + |
| Water (distilled water, river water, tap water, sea water) | + | + | + | □ | + |
| Tartaric acid | + | + | + | □ | + |
| Xylene | – | – | + | + | + |
| Zinc sulphate | + | + | + | o | + |
| Citric acid | + | 10% | + | + | o |

+: Resistant to all concentrations
 %: Resistant to max. % concentrations
 o: Conditionally resistant
 –: Not resistant
 □: No data
 (): Estimated value

General Technical Information

Chemical resistance of enclosure seals

The following table provides an overview of the chemical resistance of enclosure seals. The specified values are reference values relating to different concentrations and ambient temperatures. This also applies to simultaneous exposure to several chemicals. Corresponding trials are therefore recommended.

All tests were carried out at room temperature. The chemical resistance may change in combination with different media. Therefore, no responsibility can be accepted for the correctness of this information.

| Chemical | CR | Silicone | EPDM | NBR | Polyurethane | PVC |
|--|-----|----------|-------|------|------------------|-------|
| Acetone | o | – | + | – | – | – |
| Formic acid | o | + | o | – | – | – |
| Ammonia | 10% | + | + | o | +/- | o |
| Benzine | o | – | – | o | – | + |
| Benzene | – | – | – | – | □ | – |
| Brake fluid | o | + | + | – | – | □ |
| Butane | + | – | – | + | □ | 50% |
| Butanol | + | – | + | o | – | o |
| Calcium chloride | □ | □ | + | + | + (watery) | + |
| Chlorobenzene | – | – | – | – | – | – |
| Diesel oil | o | – | – | □ | o | o |
| Acetic acid | – | o | – | – | +/- | + |
| Formaldehyde | □ | + | 40% | o | □ | – |
| Freon 113 | o | □ | □ | + | □ | □ |
| Fruit juice | + | + | + | o | □ | + |
| Glycerine | + | + | + | + | + | + |
| Fuel oil | o | o | – | + | □ | o |
| Hydraulic oil | □ | o | – | o | □ | □ |
| Caustic potash solution | + | – | < 50% | o | □ | + |
| Potassium chloride | + | + | + | + | □ | + |
| Potassium hydroxide | o | o | + | + | – | □ |
| Linseed oil | + | + | o | + | o | + |
| Methanol | + | + | + | o | +/- | + |
| Methylene chloride | – | – | – | – | – | – |
| Lactic acid | + | □ | < 10% | o | □ | 10% |
| Mineral oils | o | o | – | + | +/- | + |
| Engine oils | o | + | – | + | □ | + |
| Sodium carbonate | □ | + | + | + | □ | □ |
| Sodium chloride | + | + | + | + | + | + |
| Sodium hydroxide | 50% | o | + | o | – | + |
| Caustic soda | 50% | < 10% | + | o | □ | 60% |
| Nitric acid | – | < 10% | – | – | – | < 30% |
| Hydrochloric acid | o | < 10% | + | – | o < 10% | < 20% |
| Lubricating oil | o | + | o | + | □ | + |
| Carbon disulphide | – | – | – | – | □ | – |
| Sulphuric acid | 50% | o | – | – | – (concentrated) | < 60% |
| Soap solution | □ | + | □ | + | + | o |
| Detergent | o | + | o | + | □ | □ |
| Turpentine oil | □ | – | – | o | +/- | + |
| Carbon tetrachloride | – | – | – | – | – | – |
| Toluene | – | – | – | – | – | – |
| Trichloroethylene | – | – | – | – | – | – |
| Water (distilled water, river water, tap water, sea water) | + | + | + | 80°C | + | 40°C |
| Tartaric acid | o | + | + | + | □ | + |
| Xylene | – | – | – | – | – | – |
| Zinc sulphate | + | + | + | + | □ | + |
| Citric acid | + | + | + | + | + | 10% |

+: Resistant to all concentrations
 %: Resistant to max. % concentrations
 o: Conditionally resistant
 –: Not resistant
 □: No data
 +/-: Suitability strongly influenced by the specific substance or concentration

Quality manufacturing guarantee

Reliable, flexible, personal: BERNSTEIN System Solutions

Outsourcing is a matter of trust. You need a competent service provider who you can rely on, who is flexible and who is always prepared to listen.

BERNSTEIN is your dependable partner.

With more than 30 years of experience to look back on, we offer comprehensive know-how in enclosure technology and corresponding applications.

Take advantage of the BERNSTEIN system solution service for enclosures with personal on-site support.

Benefit from all the advantages offered by BERNSTEIN!

You will find further information on system solutions on Page 12.

Our range of services for standard enclosure modifications:

- Standard enclosures perfectly tailored to your requirements
- Mechanical machining (even complicated contours) by CNC machining centres
- RoHS-compliant surface treatment for use in corrosive environments
- Special coating in accordance with RAL specification
- Screen print or engraving of enclosure surface
- Special coating and conductive seal for HF-proof version
- Installation of individual components from the BERNSTEIN range of accessories as well as other customer-specific components
- Electrical wiring of components according to your specifications

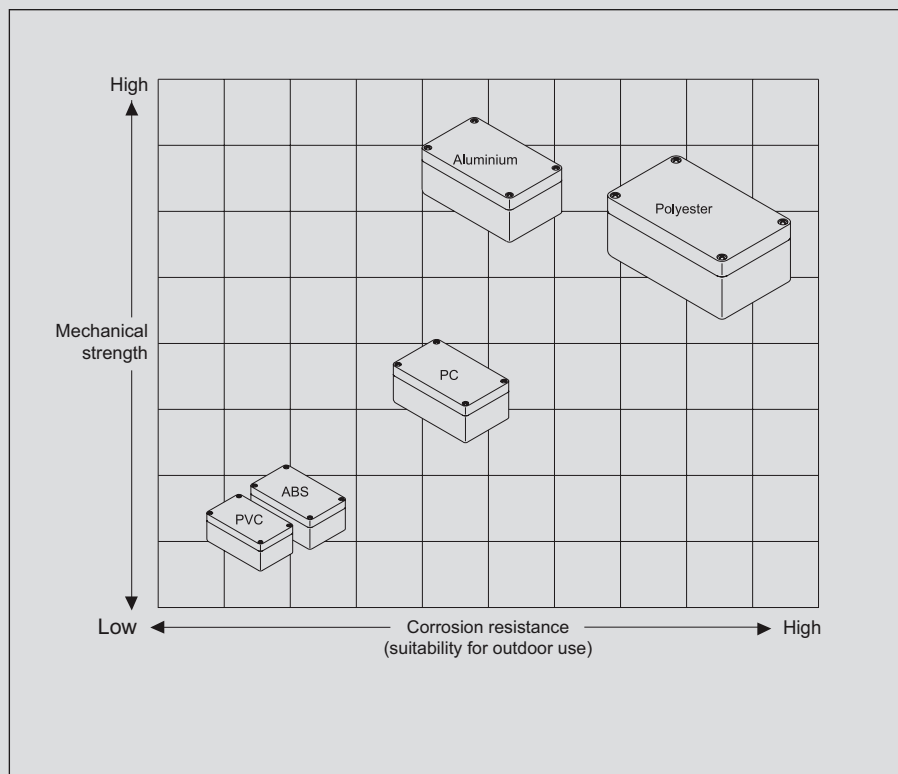
Your benefits:

- Personal advice on site
- Reduced vertical integration
- The enclosure modified to your specification can be directly incorporated in your production process

Standard Enclosures – General Technical Information

Mechanical strength of standard enclosures

The illustration shows the suitability of different enclosure materials (standard enclosure) in terms of mechanical stress and corrosive environments.



Manufacturing standard for standard enclosures

Technical information on enclosure manufacture

As an ISO-9001-2008-certified company, BERNSTEIN has defined a manufacturing standard that applies to all machining orders (unless other requirements are specified).

Dimension tolerances

When preparing details for enclosure machining (see following drawings, showing orientation of enclosure when set up for machining), tolerances used for the first machining operation on each set up, are according to ISO 2768-mH.

If other dimensions or reference edges are used, the following maximum general tolerances are applicable for the first machining operation on each enclosure per set up (see table below).

Tolerances between further machining operations compared to each other can be limited to ± 0.1 mm.

General tolerances Standard range

| Material/enclosure type | General tolerance |
|-------------------------|-------------------|
| CA-020 to CA-480 | |
| Cast aluminium | DIN 1688 |
| CT-50 to CT-91 | |
| PC/ABS | DIN 16901 |
| CP-140 to CP-460 | |
| Polyester mats | DIN 16901 |

Minimum purchase quantities

In order to keep enclosure machining as cost-effective for the user as possible, the following minimum purchase quantities are suggested:

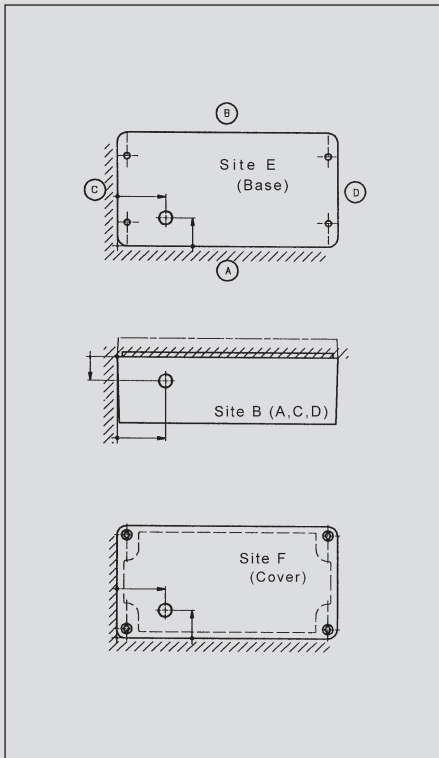
| Designation | Minimum purchase quantity |
|-------------------|---------------------------|
| CA-020 ... CA-080 | 20 pieces |
| CA-100 ... CA-190 | 10 pieces |
| CA-210 ... CA-310 | 10 pieces |
| CA-330 ... CA-480 | 5 pieces |
| CP-140 ... CP-195 | 20 pieces |
| CP-220 ... CP-320 | 10 pieces |
| CP-330 ... CP-460 | 5 pieces |
| CT-50 ... CT-76 | 20 pieces |
| CT-78 ... CT-89 | 10 pieces |

These quantities should be regarded as the minimum, if the customised enclosures are to be produced economically. Production includes mechanical machining, special coating, screen-printing, engraving or assembly of accessories. BERNSTEIN will of course be pleased to advise you.

Reference edges for manufacturing standard

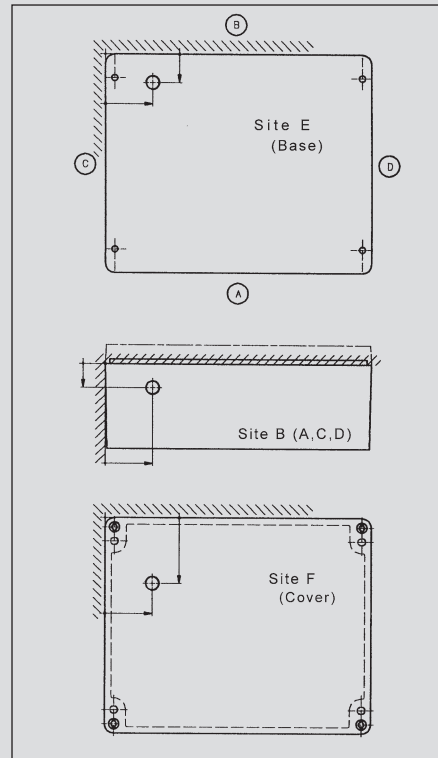
Series

CA-020 to CA-240, CA-270 to CA-300
CT-50 to CT-82, CP-140 to CP-300



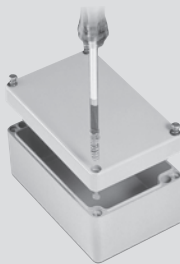
Series

CA-250, CA-310 to CA-480
CT-84 to CT-91, CP-320 to CPS-590



The BERNSTEIN quick-release fastener and flexible internal articulated hinge

Invented and patented by BERNSTEIN – the quick-release fastener and its internal articulated hinge



- Reduced time and costs
- Easy to use

1. Press and turn by 90°

- Easy opening and closing

2. Simple connection check

- No need for mechanical testing

3. Safe

- Quick-release fastener is tensioned and snaps firmly in. Cover will not open when subjected to shaking and vibration.

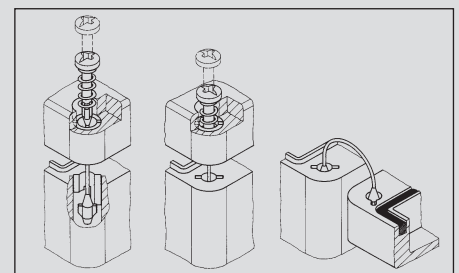
4. Effortless mounting

- Self-latching and locking function ensures straightforward mounting or retrofit.

Quick-release fastener/internal articulated hinge – for securing covers to enclosure bodies.

- Subsequent mounting possible without the need for mechanical machining.
- Strain relief and captive mounting of the cover are guaranteed.

The flexible internal articulated hinges can be easily fitted in the enclosures without the need for mechanical machining and reliably hold the enclosure cover after opening. The hinges provide effective strain relief and captive mounting of the enclosure cover



Aluminium Enclosure Series CA

BERNSTEIN aluminium enclosures have a well proven record of success in encapsulating electrical, electronic or pneumatic components, while also being ideally suited for applications in potentially explosive atmospheres. All enclosures comply with protection class IP66 according to DIN EN 60529 (optionally IP67).

BERNSTEIN aluminium enclosures feature earthing screws (copper-plated, M4 or M6) in the body and in the cover for connecting PE conductors. The surfaces under the earthing screws are left blank. The screws for mounting the covers on BERNSTEIN enclosures are made from stainless steel and are held captive by the self-latching hinge integrated in the cover. The protection class (on the standard enclosure) is ensured by a factory-fitted seal. BERNSTEIN aluminium enclosures are finished as standard in RAL 7001 (silver grey).

BERNSTEIN uses pressure die-casting or gravity die-casting moulds to manufacture the aluminium enclosures.

The mounting flanges or even the earthing socket on the inside of the enclosure can be used for mounting and securing built-in components (mounting rail, mounting plate, pc board etc.). These mounting points on the inside of the enclosures are located at different levels and in different positions. The dimensioned drawings on the following pages show the relevant positions.

Technical data

Material

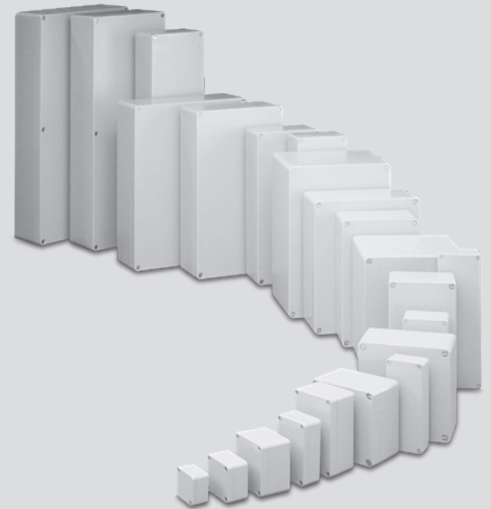
Aluminium pressure die-casting or gravity die-casting

Seal

Foamed PUR seal
Neoprene (CR) round cord (silicone-free),
silicone round cord, EPDM round cord

Cover screws

Stainless steel, captive, cross recessed head



Optionally:

- Stainless steel, captive hexagon socket head cap screws
- Sealed cover screws, steel (9 S 20 K), slot head (on request)

Coating

Standard: RAL 7001 (silver grey)

Optionally:

- Special RAL colours
- Special coatings

Temperature range of CA enclosures, standard powder-coated finish

–30°C to +80°C

Please contact us for higher temperature ranges.

Temperature range of seals

Standard:

–40°C bis +100°C (PUR seal)

Alternatively:

–30°C to +80°C (Neoprene seal)

–60 °C to +130°C (silicone seal)

or rather –35°C to +100°C (EPDM seal)

Protection class

IP66

IP67 with PUR seal

Approbations

Germanischer Lloyd

c UL us (Label on demand)

ATEX



| Aluminium enclosure | | | | | | |
|---------------------|---|-----|---|-----|----------------|--------|
| Dimensions/mm | | | | | Article number | Type |
| L | x | W | x | H | | |
| 50 | x | 45 | x | 30 | 1020000000 | CA-020 |
| 58 | x | 64 | x | 36 | 1060000000 | CA-060 |
| 98 | x | 64 | x | 36 | 1080000000 | CA-080 |
| 150 | x | 64 | x | 36 | 1100000000 | CA-100 |
| 75 | x | 80 | x | 57 | 1130000000 | CA-130 |
| 75 | x | 80 | x | 57 | 1140000000 | CA-140 |
| 125 | x | 80 | x | 57 | 1150000000 | CA-150 |
| 125 | x | 80 | x | 57 | 1160000000 | CA-160 |
| 175 | x | 80 | x | 57 | 1170000000 | CA-170 |
| 175 | x | 80 | x | 57 | 1180000000 | CA-180 |
| 250 | x | 80 | x | 57 | 1190000000 | CA-190 |
| 122 | x | 122 | x | 80 | 1210000000 | CA-210 |
| 122 | x | 122 | x | 90 | 1210000050 | CA-215 |
| 122 | x | 122 | x | 80 | 1220000000 | CA-220 |
| 220 | x | 122 | x | 80 | 1230000000 | CA-230 |
| 220 | x | 122 | x | 90 | 1230000050 | CA-235 |
| 220 | x | 122 | x | 80 | 1240000000 | CA-240 |
| 360 | x | 122 | x | 80 | 1250000000 | CA-250 |
| 160 | x | 160 | x | 90 | 1270000000 | CA-270 |
| 160 | x | 160 | x | 90 | 1280000000 | CA-280 |
| 260 | x | 160 | x | 90 | 1290000000 | CA-290 |
| 260 | x | 160 | x | 90 | 1300000000 | CA-300 |
| 360 | x | 160 | x | 90 | 1310000000 | CA-310 |
| 560 | x | 160 | x | 90 | 1330000000 | CA-330 |
| 200 | x | 230 | x | 110 | 1350000000 | CA-350 |
| 200 | x | 230 | x | 180 | 1360000000 | CA-360 |
| 280 | x | 230 | x | 110 | 1370000000 | CA-370 |
| 330 | x | 230 | x | 110 | 1380000000 | CA-380 |
| 330 | x | 230 | x | 180 | 1390000000 | CA-390 |
| 401 | x | 230 | x | 110 | 1400000000 | CA-400 |
| 600 | x | 230 | x | 110 | 1420000000 | CA-420 |
| 402 | x | 310 | x | 110 | 1450000000 | CA-450 |
| 402 | x | 310 | x | 180 | 1460000000 | CA-460 |
| 600 | x | 310 | x | 110 | 1470000000 | CA-470 |
| 600 | x | 310 | x | 180 | 1480000000 | CA-480 |

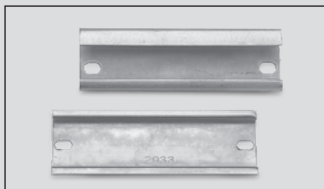
Assembling of components

This is just a selection of possible assembly components that BERNSTEIN offers. Contact us, we can incorporate components from all leading manufacturers to satisfy your individual demand. You find further information about "System solutions" on page 12.



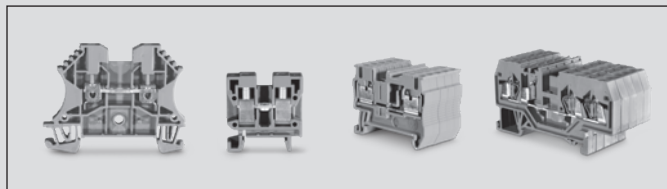
Mounting plates

made from galvanised steel plate (thickness: CA-060 to CA-310, CA-350 to CA-400: 1.5 mm; CA-330, CA-420 to CA-480: 2.5 mm) for versatile mounting of built-in components.



Mounting rails

conforming to Standards TS 15 or TS 32 and TS 35 made from steel; surface treated for accepting terminal blocks.



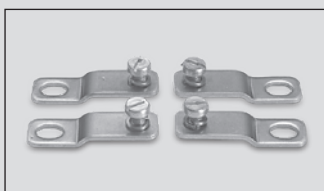
Terminal blocks

of all renowned manufacturers are used.



Earthing bars

made from galvanised steel for combining and connecting PE conductors.



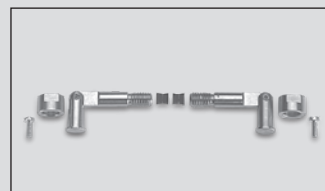
External mounting brackets

made from stainless steel for mounting enclosures without opening the covers. Variable mounting in 90°-steps thanks to contour in base of enclosure.



External articulated hinges

for hinged mounting of enclosure cover. Opening range of cover approx. 155°. Cast aluminium (painted in RAL 7001 – specific colour according to enclosure specification possible). Machining is required for mounting on enclosures.



Internal articulated hinges

for hinged mounting of enclosure cover. Opening range of cover approx. 95°. Stainless steel. Machining is required for mounting on enclosures.



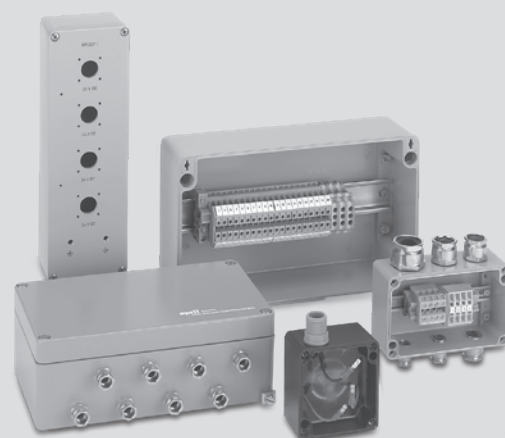
Silicon, EPDM or HF seal

with increased temperature resistance (see indications left side) or to protect sensitive electronic equipment against high-frequency radiation (HF seal). For a conductive connection, grooves and springs of the enclosure must be left blank.



Cable glands

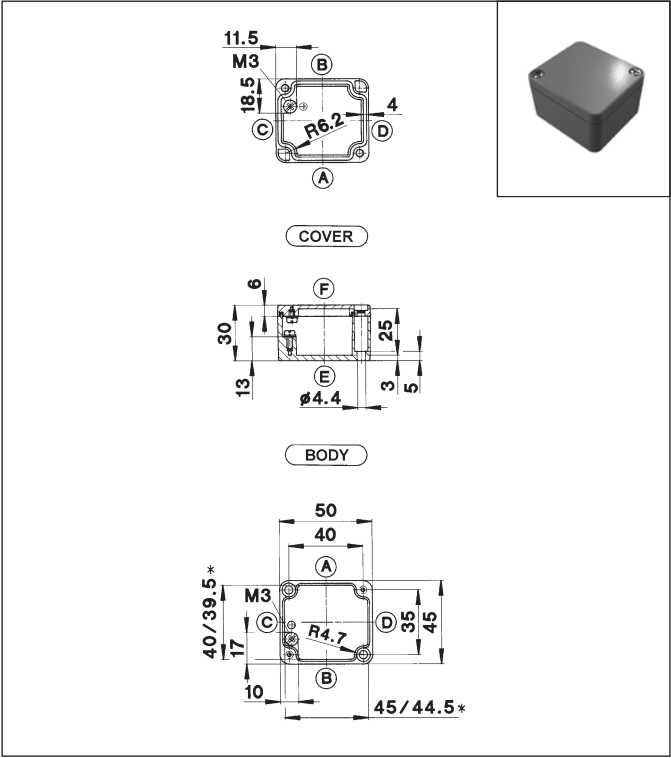
plastic cable glands (polyamide PAGV-2, RAL 7001) or brass cable glands. Sealing element CR/NBR. Temperature range: -20°C to +100°C (see also page 71). Other cable glands on demand.



Aluminium Enclosures – Series CA

50 x 45 x 30 mm

CA-020
Aluminium enclosures

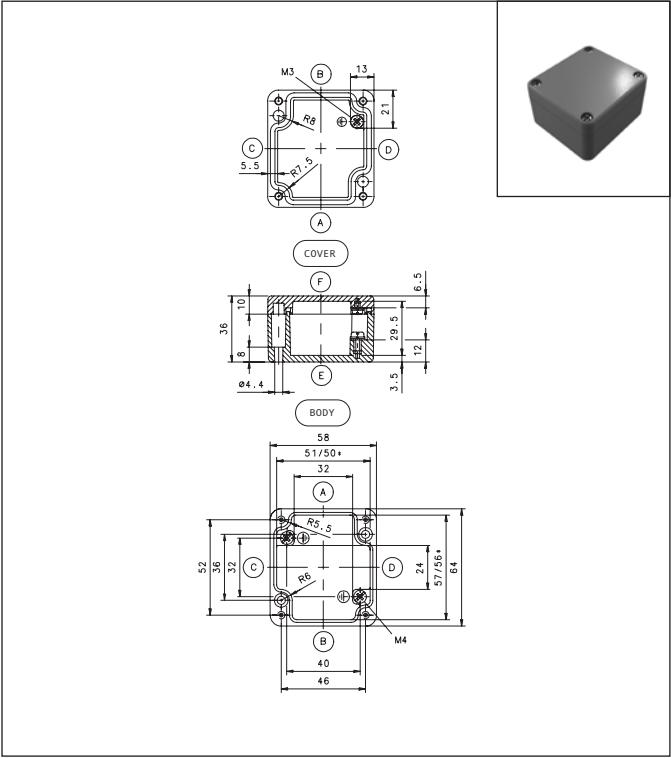


* Smaller dimension at mounting plate support

| Type | CA-020 |
|---|-------------------------|
| Weight (g) | 70 |
| External dimension (mm) | 50 x 45 x 30 |
| Ordering data Enclosure (painted) with seal (PUR) | Part number |
| with cover screws | 1020000000 |
| unwashed, not painted, loose accessories | 1020034000 |
| | |
| | |
| | |
| | |
| Accessories (individual part or installation kit) | |
| Mounting plate | – |
| Mounting rail TS 15 | – |
| Mounting rail TS 32 | – |
| Mounting rail TS 35 | – |
| Earthing rail | – |
| External mounting brackets | – |
| External articulated hinges | – |
| Internal articulated hinges with cover guide** | – |
| Silicone seal for extended temperature range (by the metre) | – |
| | |
| Maximum possible number of threads | |
| ISO M | 12 16 20 25 32 40 50 63 |
| Side A/B | 1 0 0 0 0 0 0 0 |
| Side C/D | 1 0 0 0 0 0 0 0 |
| ** Enclosure preparation required | |

58 x 64 x 36 mm

CA-060
Aluminium enclosures



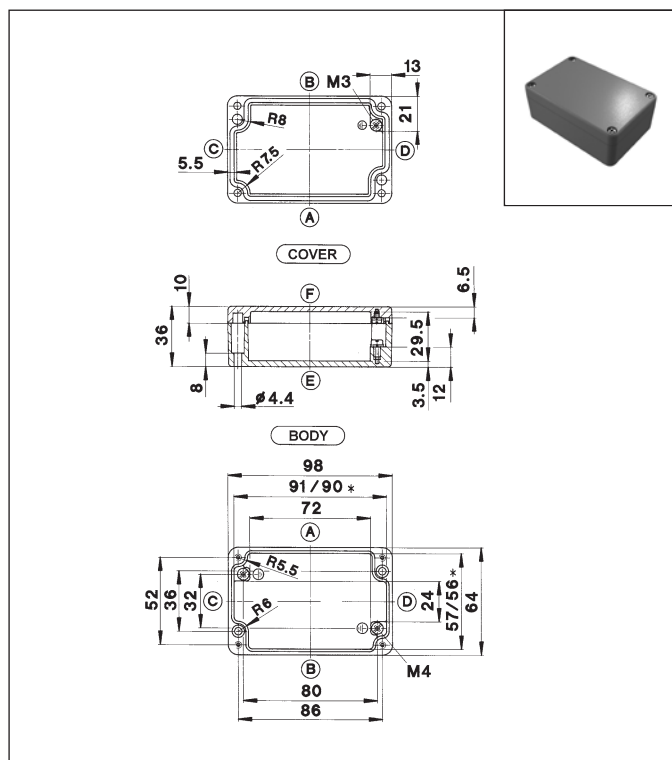
* Smaller dimension at mounting plate support

| Type | CA-060 |
|---|-------------------------|
| Weight (g) | 160 |
| External dimension (mm) | 58 x 64 x 36 |
| Ordering data Enclosure (painted) with seal (PUR) | Part number |
| with cover screws | 1060000000 |
| unwashed, not painted, loose accessories | 1060038000 |
| | |
| | |
| | |
| | |
| Accessories (individual part or installation kit) | |
| Mounting plate | 9511001000 |
| Mounting rail TS 15 | 9820000000 |
| Mounting rail TS 32 | – |
| Mounting rail TS 35 | – |
| Earthing rail | – |
| External mounting brackets | – |
| External articulated hinges | – |
| Internal articulated hinges with cover guide** | – |
| Silicone seal for extended temperature range (by the metre) | on request |
| | |
| Maximum possible number of threads | |
| ISO M | 12 16 20 25 32 40 50 63 |
| Side A/B | 2 1 0 0 0 0 0 0 |
| Side C/D | 1 0 0 0 0 0 0 0 |
| ** Enclosure preparation required | |

98 x 64 x 36 mm

CA-080

Aluminium enclosures



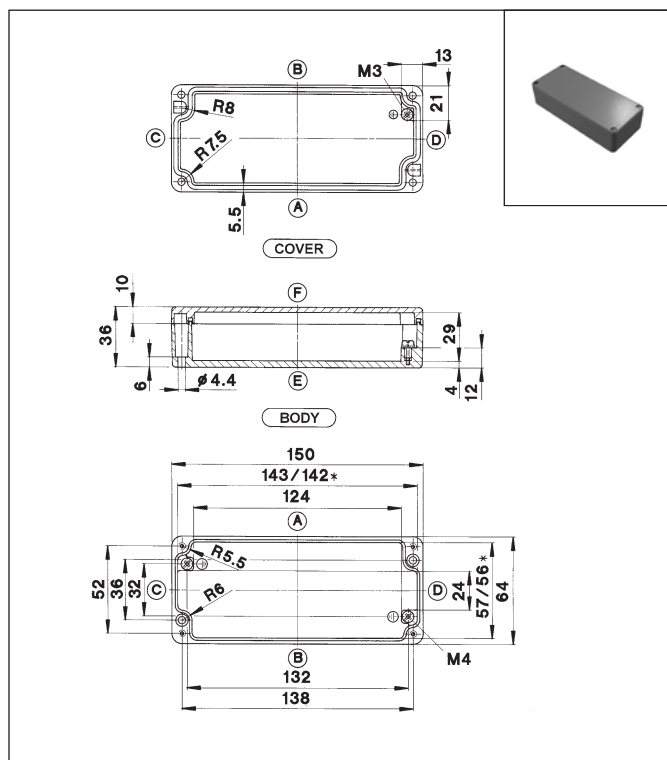
* Smaller dimension at mounting plate support

| | |
|---|-------------------------|
| Type | CA-080 |
| Weight (g) | 220 |
| External dimension (mm) | 98 x 64 x 36 |
| Ordering data Enclosure (painted) with seal (PUR) | Part number |
| with cover screws | 1080000000 |
| unwashed, not painted, loose accessories | 1080042000 |
| | |
| | |
| | |
| | |
| | |
| Accessories (individual part or installation kit) | |
| Mounting plate | 9511002000 |
| Mounting rail TS 15 | 9820005000 |
| Mounting rail TS 32 | – |
| Mounting rail TS 35 | – |
| Earthing rail | – |
| External mounting brackets | – |
| External articulated hinges | – |
| Internal articulated hinges with cover guide** | – |
| Silicone seal for extended temperature range (by the metre) | on request |
| | |
| Maximum possible number of threads | |
| ISO M | 12 16 20 25 32 40 50 63 |
| Side A/B | 4 3 0 0 0 0 0 0 |
| Side C/D | 1 0 0 0 0 0 0 0 |
| ** Enclosure preparation required | |

150 x 64 x 36 mm

CA-100

Aluminium enclosures



* Smaller dimension at mounting plate support

| | | | | | | | | |
|---|--|-------------|----|----|----|----|----|----|
| Type | CA-100 | | | | | | | |
| Weight (g) | 330 | | | | | | | |
| External dimension (mm) | 150 x 64 x 36 | | | | | | | |
| Ordering data | Enclosure (painted) with seal (PUR) | Part number | | | | | | |
| | with cover screws | 1100000000 | | | | | | |
| | unwashed, not painted, loose accessories | 1100053000 | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Accessories (individual part or installation kit) | | | | | | | | |
| Mounting plate | | 9511003000 | | | | | | |
| Mounting rail TS 15 | | 9820011000 | | | | | | |
| Mounting rail TS 32 | | – | | | | | | |
| Mounting rail TS 35 | | – | | | | | | |
| Earthing rail | | – | | | | | | |
| External mounting brackets | | – | | | | | | |
| External articulated hinges | | – | | | | | | |
| Internal articulated hinges with cover guide** | | – | | | | | | |
| Silicone seal for extended temperature range (by the metre) | | on request | | | | | | |
| | | | | | | | | |
| Maximum possible number of threads | | | | | | | | |
| ISO M | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 |
| Side A/B | 6 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| Side C/D | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ** Enclosure preparation required | | | | | | | | |

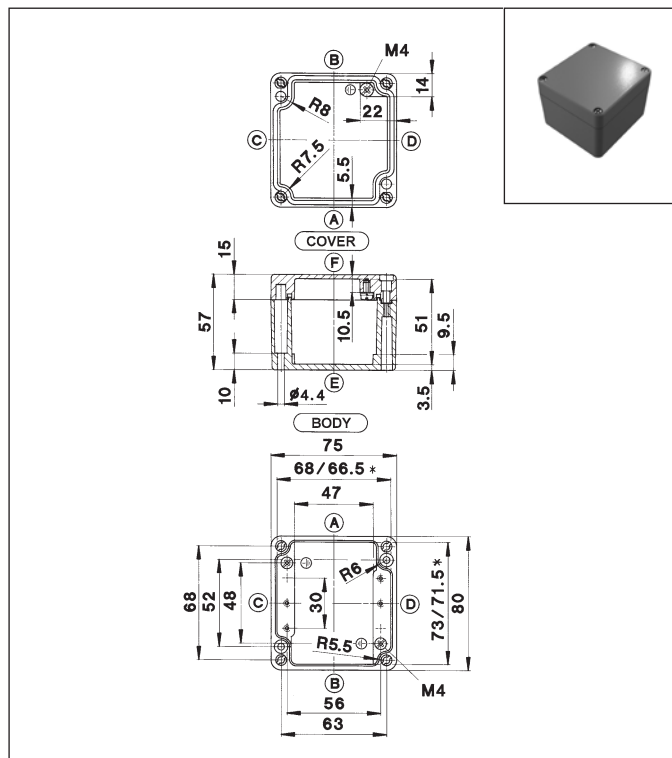
**CAD files available
at www.bernstein.eu**

Aluminium Enclosures – Series CA

75 x 80 x 57 mm

CA-130

Aluminium enclosures



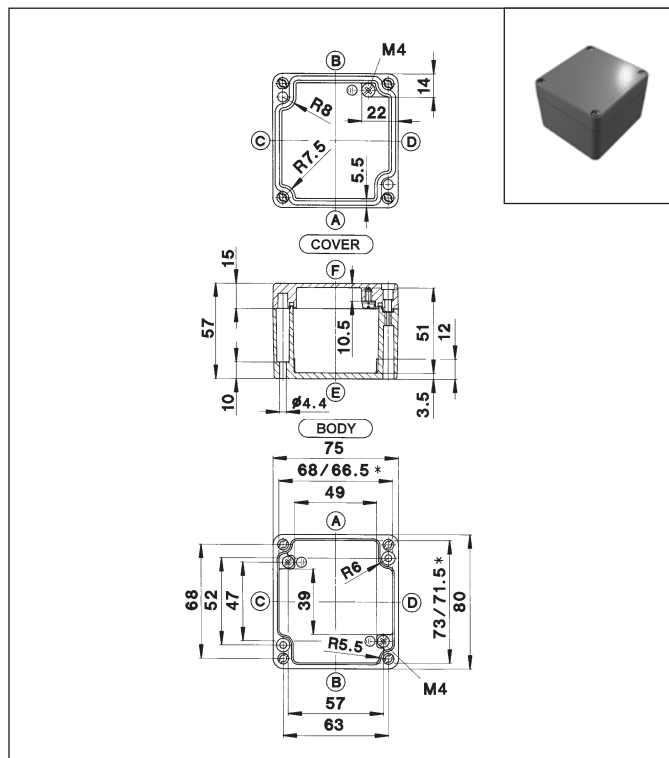
* Smaller dimension at mounting plate support

| Type | CA-130 |
|---|-------------------------|
| Weight (g) | 280 |
| External dimension (mm) | 75 x 80 x 57 |
| Ordering data Enclosure (painted) with seal (PUR) | Part number |
| with cover screws | 1130000000 |
| unwashed, not painted, loose accessories | 1130057000 |
| | |
| | |
| | |
| | |
| Accessories (individual part or installation kit) | |
| Mounting plate | 9823015000 |
| Mounting rail TS 15 | 9820002000 |
| Mounting rail TS 32 | - |
| Mounting rail TS 35 | - |
| Earthing rail | - |
| External mounting brackets | - |
| External articulated hinges | 9801044000 |
| Internal articulated hinges with cover guide** | - |
| Silicone seal for extended temperature range (by the metre) | on request |
| | |
| Maximum possible number of threads | |
| ISO M | 12 16 20 25 32 40 50 63 |
| Side A/B | 5 2 1 0 0 0 0 0 |
| Side C/D | 3 2 1 0 0 0 0 0 |
| ** Enclosure preparation required | |

75 x 80 x 57 mm

CA-140

Aluminium enclosures



* Smaller dimension at mounting plate support

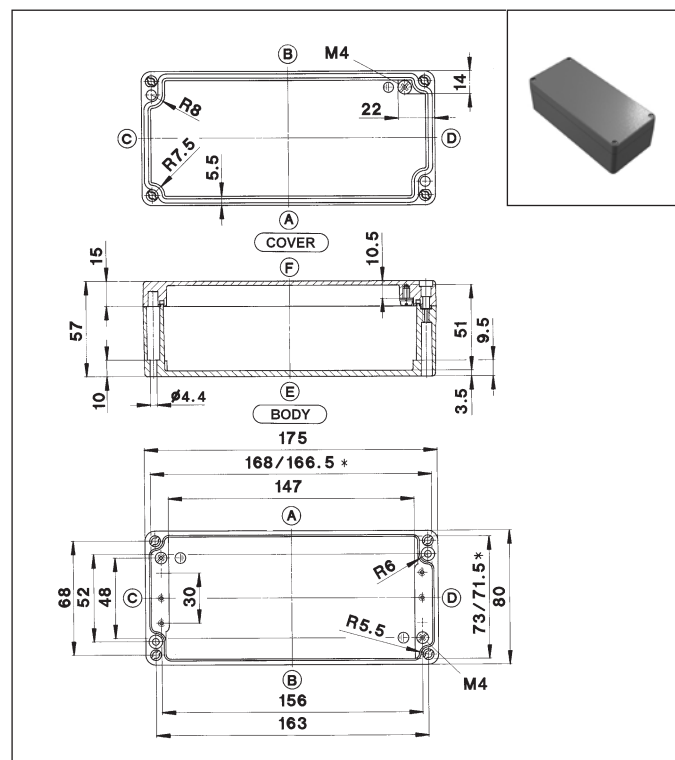
| Type | CA-140 |
|---|-------------------------|
| Weight (g) | 280 |
| External dimension (mm) | 75 x 80 x 57 |
| Ordering data Enclosure (painted) with seal (PUR) | Part number |
| with cover screws | 1140000000 |
| unwashed, not painted, loose accessories | 1140080000 |
| | |
| | |
| | |
| | |
| Accessories (individual part or installation kit) | |
| Mounting plate | 9511004000 |
| Mounting rail TS 15 | 9820035000 |
| Mounting rail TS 32 | - |
| Mounting rail TS 35 | - |
| Earthing rail | - |
| External mounting brackets | - |
| External articulated hinges | 9801044000 |
| Internal articulated hinges with cover guide** | - |
| Silicone seal for extended temperature range (by the metre) | on request |
| | |
| Maximum possible number of threads | |
| ISO M | 12 16 20 25 32 40 50 63 |
| Side A/B | 5 2 1 1 0 0 0 0 |
| Side C/D | 3 2 1 1 0 0 0 0 |
| ** Enclosure preparation required | |

Aluminium Enclosures – Series CA

175 x 80 x 57 mm

CA-170

Aluminium enclosures



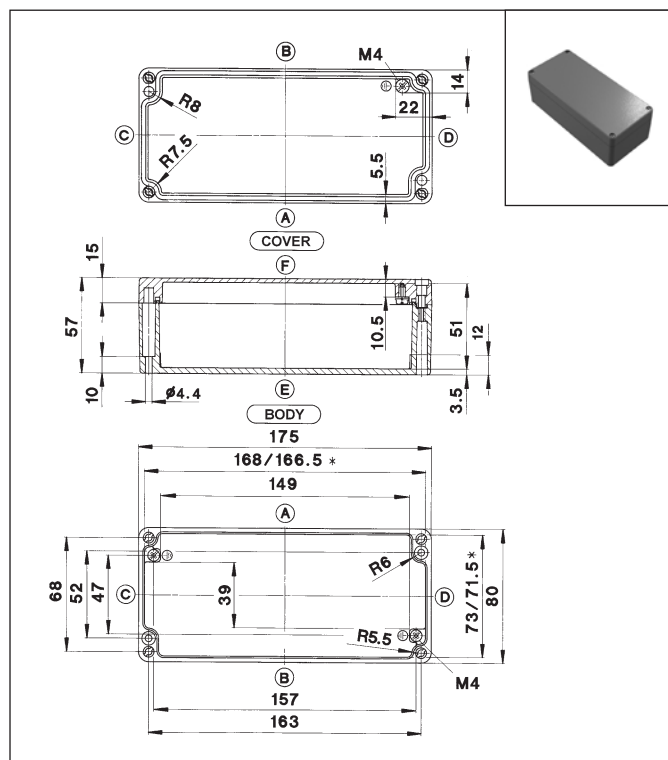
* Smaller dimension at mounting plate support

| Type | CA-170 |
|---|-------------------------|
| Weight (g) | 530 |
| External dimension (mm) | 175 x 80 x 57 |
| Ordering data Enclosure (painted) with seal (PUR) | Part number |
| with cover screws | 1170000000 |
| unwashed, not painted, loose accessories | 1170016000 |
| | |
| | |
| | |
| | |
| Accessories (individual part or installation kit) | |
| Mounting plate | 9823017000 |
| Mounting rail TS 15 | 9820014000 |
| Mounting rail TS 32 | - |
| Mounting rail TS 35 | - |
| Earthing rail | - |
| External mounting brackets | - |
| External articulated hinges | 9801044000 |
| Internal articulated hinges with cover guide** | - |
| Silicone seal for extended temperature range (by the metre) | on request |
| | |
| Maximum possible number of threads | |
| ISO M | 12 16 20 25 32 40 50 63 |
| Side A/B | 14 6 4 4 0 0 0 0 |
| Side C/D | 3 2 1 0 0 0 0 0 |
| ** Enclosure preparation required | |

175 x 80 x 57 mm

CA-180

Aluminium enclosures

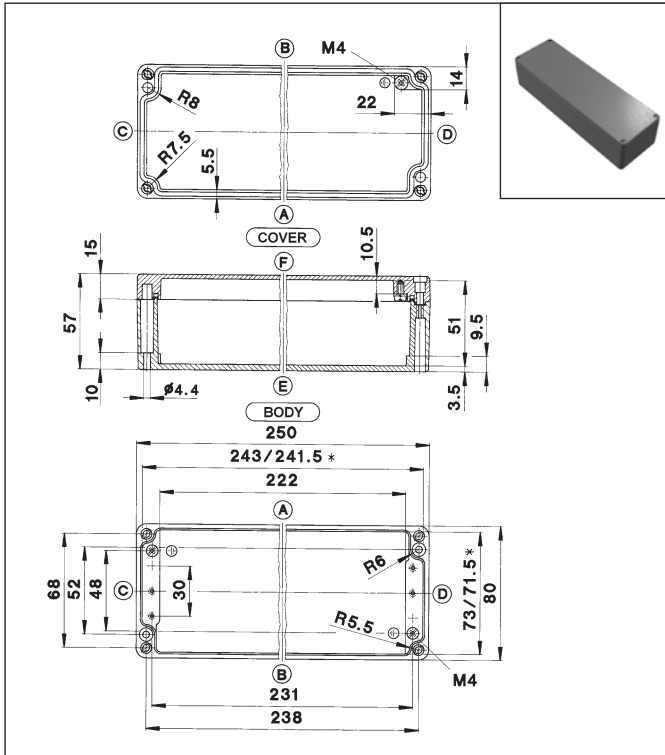


* Smaller dimension at mounting plate support

| Type | CA-180 |
|---|-------------------------|
| Weight (g) | 530 |
| External dimension (mm) | 175 x 80 x 57 |
| Ordering data Enclosure (painted) with seal (PUR) | Part number |
| with cover screws | 1180000000 |
| unwashed, not painted, loose accessories | 1180040000 |
| | |
| | |
| | |
| | |
| Accessories (individual part or installation kit) | |
| Mounting plate | 9511006000 |
| Mounting rail TS 15 | 9820037000 |
| Mounting rail TS 32 | - |
| Mounting rail TS 35 | - |
| Earthing rail | - |
| External mounting brackets | - |
| External articulated hinges | 9801044000 |
| Internal articulated hinges with cover guide** | - |
| Silicone seal for extended temperature range (by the metre) | on request |
| | |
| Maximum possible number of threads | |
| ISO M | 12 16 20 25 32 40 50 63 |
| Side A/B | 14 6 4 4 0 0 0 0 |
| Side C/D | 4 2 1 1 0 0 0 0 |
| ** Enclosure preparation required | |

250 x 80 x 57 mm

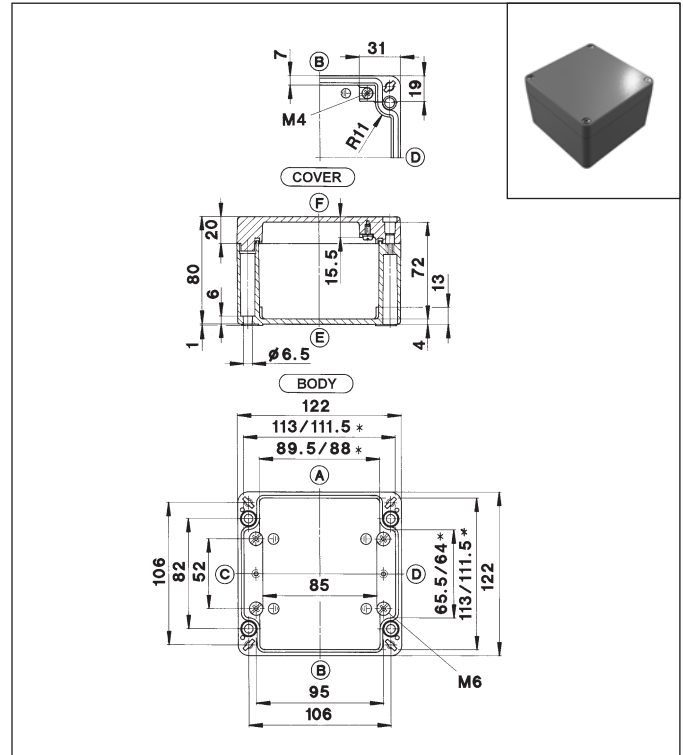
CA-190
Aluminium enclosures



122 x 122 x 80 mm

CA-210
Aluminium enclosures

CAD files available
at www.bernstein.eu



* Smaller dimension at mounting plate support

| Type | CA-190 |
|---|-------------------------|
| Weight (g) | 710 |
| External dimension (mm) | 250 x 80 x 57 |
| Ordering data Enclosure (painted) with seal (PUR) | Part number |
| with cover screws | 1190000000 |
| Unwashed, not painted, loose accessories | 1190026000 |
| | |
| | |
| | |
| | |
| | |
| Accessories (individual part or installation kit) | |
| Mounting plate | 9823021000 |
| Mounting rail TS 15 | 9820019000 |
| Mounting rail TS 32 | - |
| Mounting rail TS 35 | - |
| Earthing rail | - |
| External mounting brackets | - |
| External articulated hinges | 9801044000 |
| Internal articulated hinges with cover guide** | - |
| Silicone seal for extended temperature range (by the metre) | on request |
| | |
| Maximum possible number of threads | |
| ISO M | 12 16 20 25 32 40 50 63 |
| Side A/B | 22 9 7 5 0 0 0 0 |
| Side C/D | 3 2 1 0 0 0 0 0 |
| ** Enclosure preparation required | |

* Smaller dimension at mounting plate support

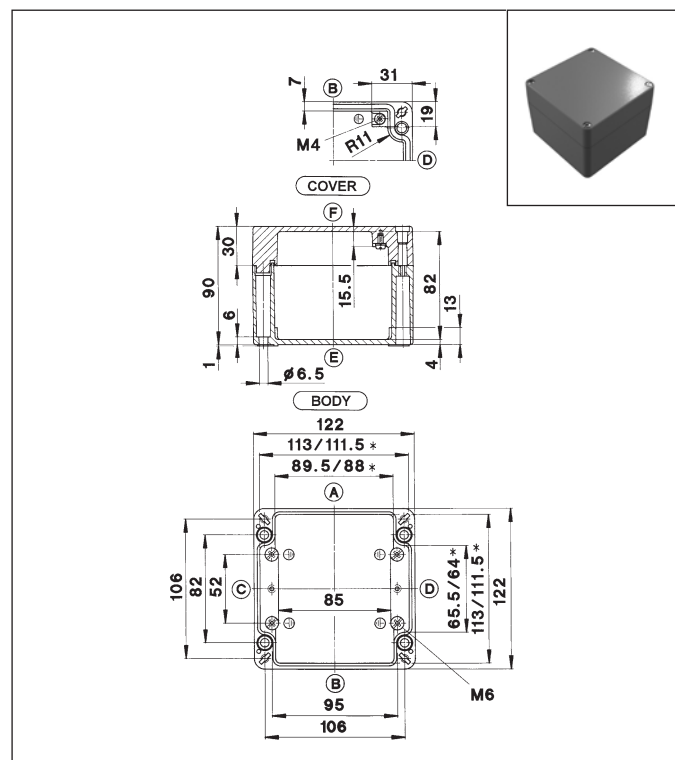
| Type | CA-210 |
|---|-------------------------|
| Weight (g) | 940 |
| External dimension (mm) | 122 x 122 x 80 |
| Ordering data Enclosure (painted) with seal (PUR) | Part number |
| with cover screws | 1210000000 |
| Unwashed, not painted, loose accessories | 1210016000 |
| | |
| | |
| | |
| | |
| | |
| Accessories (individual part or installation kit) | |
| Mounting plate | 9511150000 |
| Mounting rail TS 15 | 9820019000 |
| Mounting rail TS 32 | 9821000000 |
| Mounting rail TS 35 | 9822001000 |
| Earthing rail | 9810002000 |
| External mounting brackets | 9824024000 |
| External articulated hinges | 9801047000 |
| Internal articulated hinges with cover guide** | 9801031000 |
| Silicone seal for extended temperature range (by the metre) | on request |
| | |
| Maximum possible number of threads | |
| ISO M | 12 16 20 25 32 40 50 63 |
| Side A/B | 12 6 4 2 2 0 0 0 |
| Side C/D | 5 2 2 1 0 0 0 0 |
| ** Enclosure preparation required | |

Aluminium Enclosures – Series CA

122 x 122 x 90 mm

CA-215

Aluminium enclosures



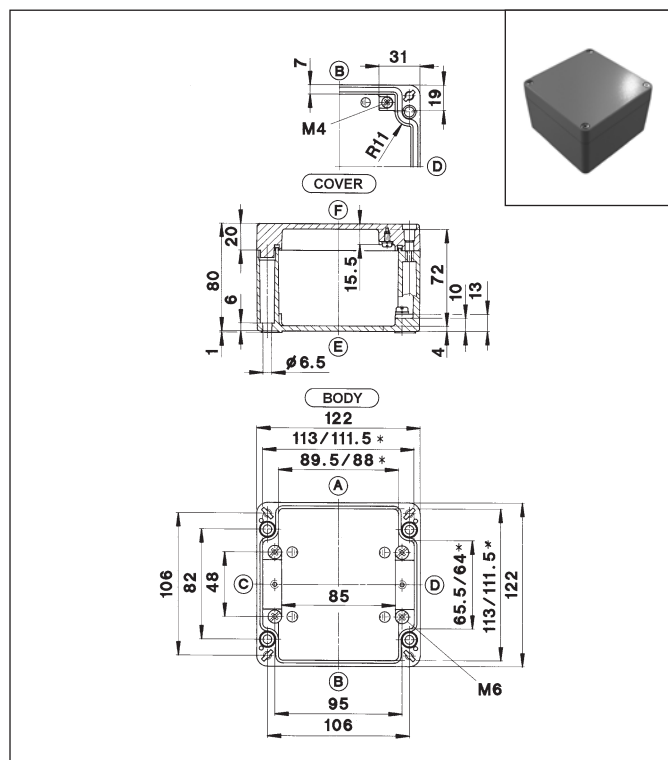
* Smaller dimension at mounting plate support

| Type | CA-215 |
|---|-------------------------|
| Weight (g) | 940 |
| External dimension (mm) | 122 x 122 x 90 |
| Ordering data Enclosure (painted) with seal (PUR) | Part number |
| with cover screws | 1210000050 |
| unwashed, not painted, loose accessories | 1210012050 |
| | |
| | |
| | |
| | |
| | |
| Accessories (individual part or installation kit) | |
| Mounting plate | 9511150000 |
| Mounting rail TS 15 | - |
| Mounting rail TS 32 | 9821000000 |
| Mounting rail TS 35 | 9822001000 |
| Earthing rail | 9810002000 |
| External mounting brackets | 9824024000 |
| External articulated hinges | 9801047000 |
| Internal articulated hinges with cover guide** | 9801031000 |
| Silicone seal for extended temperature range (by the metre) | on request |
| | |
| Maximum possible number of threads | |
| ISO M | 12 16 20 25 32 40 50 63 |
| Side A/B | 12 6 4 2 2 0 0 0 |
| Side C/D | 5 2 2 1 0 0 0 0 |
| ** Enclosure preparation required | |

122 x 122 x 80 mm

CA-220

Aluminium enclosures



* Smaller dimension at mounting plate support

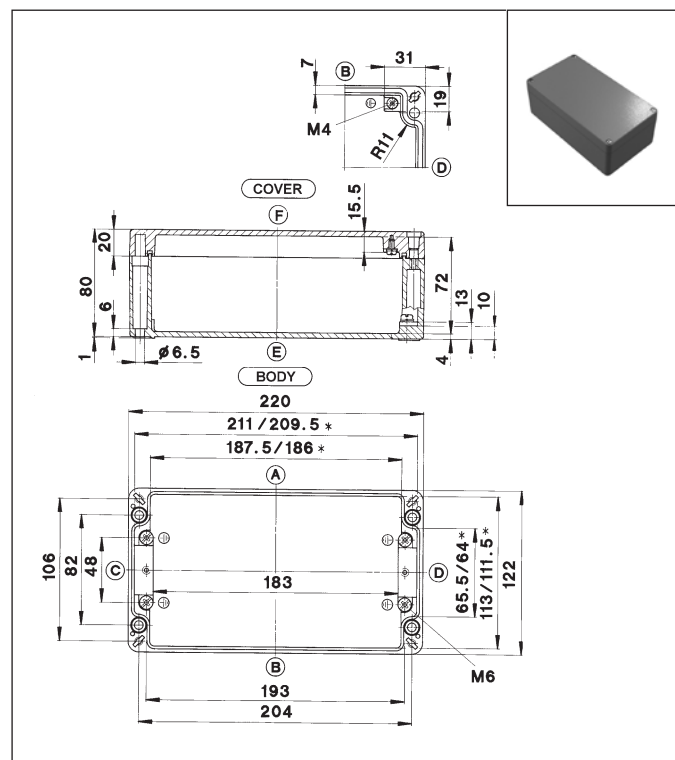
| Type | CA-220 |
|---|-------------------------|
| Weight (g) | 940 |
| External dimension (mm) | 122 x 122 x 80 |
| Ordering data Enclosure (painted) with seal (PUR) | Part number |
| with cover screws | 1220000000 |
| unwashed, not painted, loose accessories | 1220061000 |
| | |
| | |
| | |
| | |
| | |
| Accessories (individual part or installation kit) | |
| Mounting plate | 9511008000 |
| Mounting rail TS 15 | - |
| Mounting rail TS 32 | 9821000000 |
| Mounting rail TS 35 | 9822001000 |
| Earthing rail | 9810002000 |
| External mounting brackets | 9824024000 |
| External articulated hinges | 9801047000 |
| Internal articulated hinges with cover guide** | 9801031000 |
| Silicone seal for extended temperature range (by the metre) | on request |
| | |
| Maximum possible number of threads | |
| ISO M | 12 16 20 25 32 40 50 63 |
| Side A/B | 12 6 4 2 2 0 0 0 |
| Side C/D | 5 2 2 1 0 0 0 0 |
| ** Enclosure preparation required | |

Aluminium Enclosures – Series CA

220 x 122 x 80 mm

CA-240

Aluminium enclosures



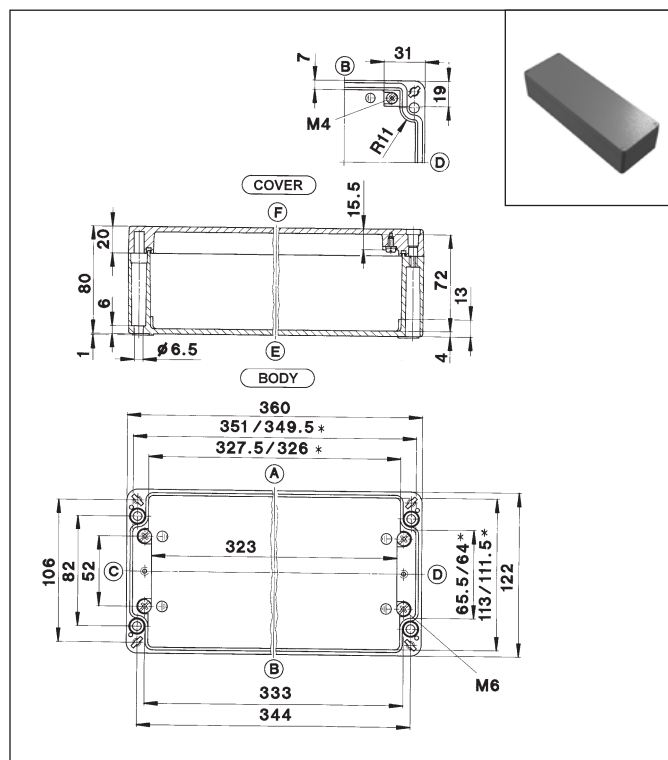
* Smaller dimension at mounting plate support

| Type | CA-240 |
|---|-------------------------|
| Weight (g) | 1410 |
| External dimension (mm) | 220 x 122 x 80 |
| Ordering data Enclosure (painted) with seal (PUR) | Part number |
| with cover screws | 1240000000 |
| unwashed, not painted, loose accessories | 1240082000 |
| | |
| | |
| | |
| | |
| | |
| Accessories (individual part or installation kit) | |
| Mounting plate | 9511009000 |
| Mounting rail TS 15 | – |
| Mounting rail TS 32 | 9821005000 |
| Mounting rail TS 35 | 9822007000 |
| Earthing rail | 9810008000 |
| External mounting brackets | 9824024000 |
| External articulated hinges | 9801047000 |
| Internal articulated hinges with cover guide** | 9801031000 |
| Silicone seal for extended temperature range (by the metre) | on request |
| | |
| Maximum possible number of threads | |
| ISO M | 12 16 20 25 32 40 50 63 |
| Side A/B | 27 12 8 5 4 0 0 0 |
| Side C/D | 5 2 2 1 0 0 0 0 |
| ** Enclosure preparation required | |

360 x 122 x 80 mm

CA-250

Aluminium enclosures

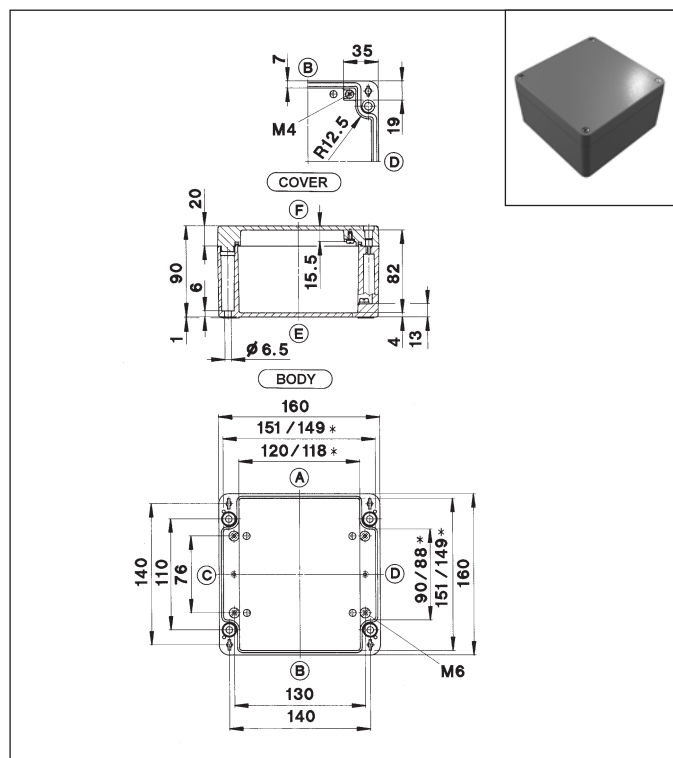


* Smaller dimension at mounting plate support

| Type | CA-250 |
|---|-------------------------|
| Weight (g) | 1860 |
| External dimension (mm) | 360 x 122 x 80 |
| Ordering data Enclosure (painted) with seal (PUR) | Part number |
| with cover screws | 1250000000 |
| unwashed, not painted, loose accessories | 1250011000 |
| | |
| | |
| | |
| | |
| | |
| Accessories (individual part or installation kit) | |
| Mounting plate | 9511174000 |
| Mounting rail TS 15 | – |
| Mounting rail TS 32 | 9821012000 |
| Mounting rail TS 35 | 9822015000 |
| Earthing rail | 9810014000 |
| External mounting brackets | 9824024000 |
| External articulated hinges | 9801047000 |
| Internal articulated hinges with cover guide** | 9801031000 |
| Silicone seal for extended temperature range (by the metre) | on request |
| | |
| Maximum possible number of threads | |
| ISO M | 12 16 20 25 32 40 50 63 |
| Side A/B | 48 21 16 9 6 0 0 0 |
| Side C/D | 5 2 2 1 0 0 0 0 |
| ** Enclosure preparation required | |

160 x 160 x 90 mm

CA-270 Aluminium enclosures



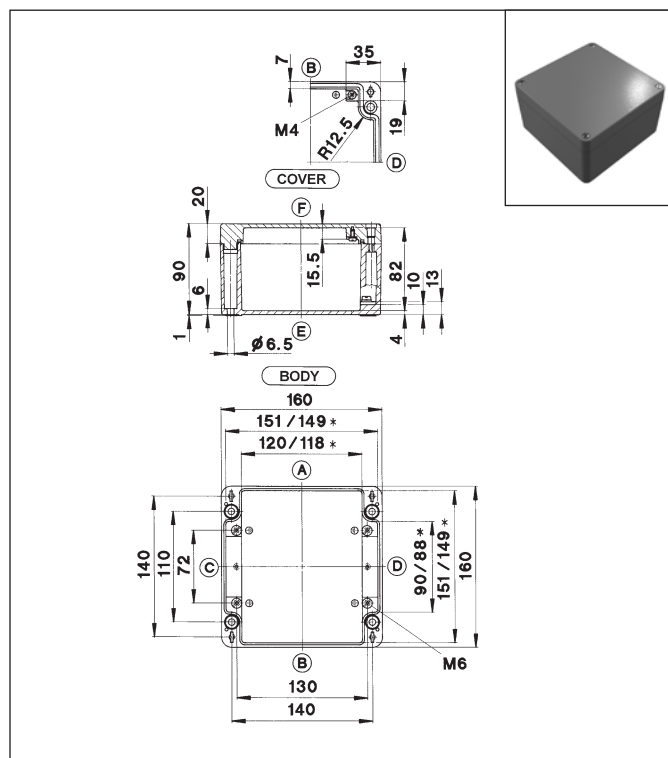
* Smaller dimension at mounting plate support

| Type | CA-270 |
|---|-------------------------|
| Weight (g) | 1410 |
| External dimension (mm) | 160 x 160 x 90 |
| Ordering data Enclosure (painted) with seal (PUR) | Part number |
| with cover screws | 1270000000 |
| unwashed, not painted, loose accessories | 1270013000 |
| | |
| | |
| | |
| | |
| | |
| Accessories (individual part or installation kit) | |
| Mounting plate | 9511149000 |
| Mounting rail TS 15 | - |
| Mounting rail TS 32 | 9821002000 |
| Mounting rail TS 35 | 9822003000 |
| Earthing rail | 9810004000 |
| External mounting brackets | 9824024000 |
| External articulated hinges | 9801047000 |
| Internal articulated hinges with cover guide** | 9801030000 |
| Silicone seal for extended temperature range (by the metre) | on request |
| | |
| Maximum possible number of threads | |
| ISO M | 12 16 20 25 32 40 50 63 |
| Side A/B | 20 9 6 4 2 2 1 0 |
| Side C/D | 8 4 3 2 2 0 0 0 |
| ** Enclosure preparation required | |

160 x 160 x 90 mm

CA-280 Aluminium enclosures

CAD files available
at www.bernstein.eu



* Smaller dimension at mounting plate support

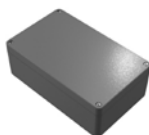
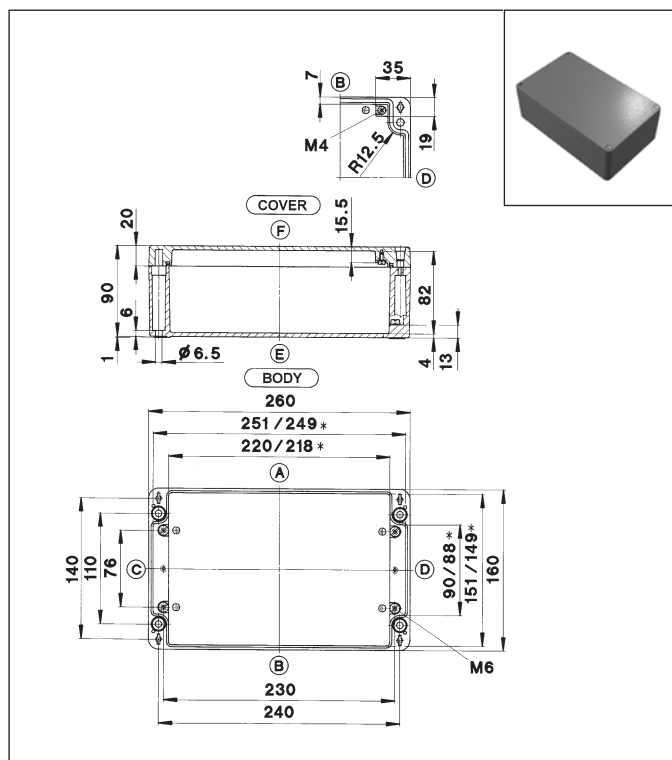
| Type | CA-280 |
|---|-------------------------|
| Weight (g) | 1410 |
| External dimension (mm) | 160 x 160 x 90 |
| Ordering data Enclosure (painted) with seal (PUR) | Part number |
| with cover screws | 1280000000 |
| unwashed, not painted, loose accessories | 1280033000 |
| | |
| | |
| | |
| | |
| | |
| Accessories (individual part or installation kit) | |
| Mounting plate | 9511011000 |
| Mounting rail TS 15 | - |
| Mounting rail TS 32 | 9821002000 |
| Mounting rail TS 35 | 9822003000 |
| Earthing rail | 9810004000 |
| External mounting brackets | 9824024000 |
| External articulated hinges | 9801047000 |
| Internal articulated hinges with cover guide** | 9801030000 |
| Silicone seal for extended temperature range (by the metre) | on request |
| | |
| Maximum possible number of threads | |
| ISO M | 12 16 20 25 32 40 50 63 |
| Side A/B | 20 9 6 4 2 2 1 0 |
| Side C/D | 8 4 3 2 2 0 0 0 |
| ** Enclosure preparation required | |

Aluminium Enclosures – Series CA

260 x 160 x 90 mm

CA-290

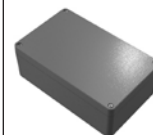
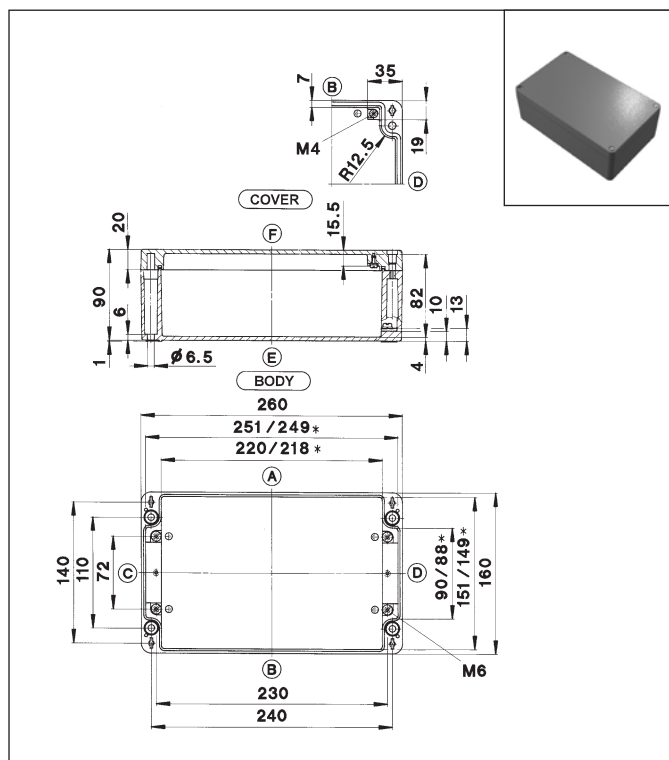
Aluminium enclosures



260 x 160 x 90 mm

CA-300

Aluminium enclosures



* Smaller dimension at mounting plate support

| Type | CA-290 |
|---|-------------------------|
| Weight (g) | 1960 |
| External dimension (mm) | 260 x 160 x 90 |
| Ordering data Enclosure (painted) with seal (PUR) | Part number |
| with cover screws | 1290000000 |
| unwashed, not painted, loose accessories | 1290011000 |
| | |
| | |
| | |
| | |
| | |
| Accessories (individual part or installation kit) | |
| Mounting plate | 9511096000 |
| Mounting rail TS 15 | - |
| Mounting rail TS 32 | 9821008000 |
| Mounting rail TS 35 | 9822011000 |
| Earthing rail | 9810010000 |
| External mounting brackets | 9824024000 |
| External articulated hinges | 9801047000 |
| Internal articulated hinges with cover guide** | 9801030000 |
| Silicone seal for extended temperature range (by the metre) | on request |
| | |
| Maximum possible number of threads | |
| ISO M | 12 16 20 25 32 40 50 63 |
| Side A/B | 36 17 12 7 4 3 3 0 |
| Side C/D | 8 4 3 2 2 0 0 0 |
| ** Enclosure preparation required | |

* Smaller dimension at mounting plate support

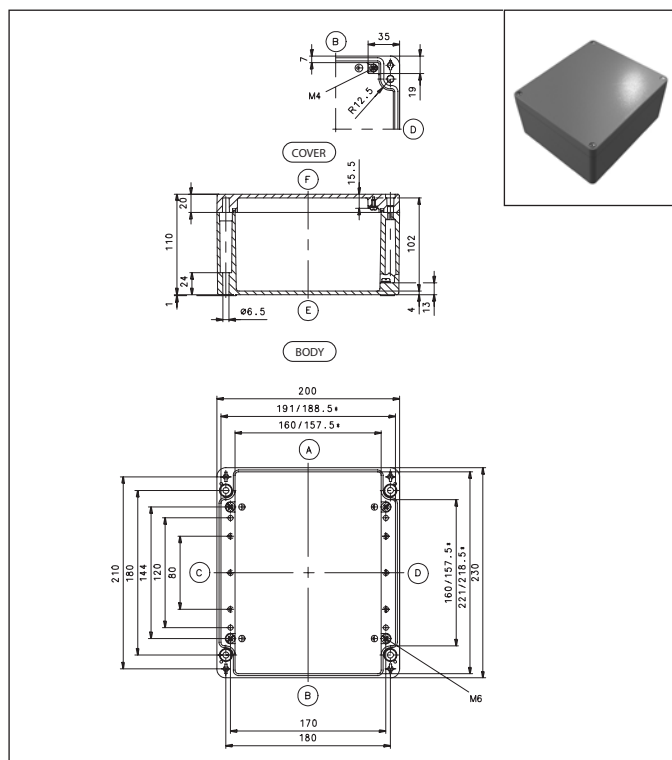
| Type | CA-300 |
|---|-------------------------|
| Weight (g) | 1960 |
| External dimension (mm) | 260 x 160 x 90 |
| Ordering data Enclosure (painted) with seal (PUR) | Part number |
| with cover screws | 1300000000 |
| unwashed, not painted, loose accessories | 1300041000 |
| | |
| | |
| | |
| | |
| | |
| Accessories (individual part or installation kit) | |
| Mounting plate | 9511012000 |
| Mounting rail TS 15 | - |
| Mounting rail TS 32 | 9821008000 |
| Mounting rail TS 35 | 9822011000 |
| Earthing rail | 9810010000 |
| External mounting brackets | 9824024000 |
| External articulated hinges | 9801047000 |
| Internal articulated hinges with cover guide** | 9801030000 |
| Silicone seal for extended temperature range (by the metre) | on request |
| | |
| Maximum possible number of threads | |
| ISO M | 12 16 20 25 32 40 50 63 |
| Side A/B | 36 17 12 7 4 3 3 0 |
| Side C/D | 8 4 3 2 2 0 0 0 |
| ** Enclosure preparation required | |

Aluminium Enclosures – Series CA

200 x 230 x 110 mm

CA-350

Aluminium enclosures



* Smaller dimension at mounting plate support

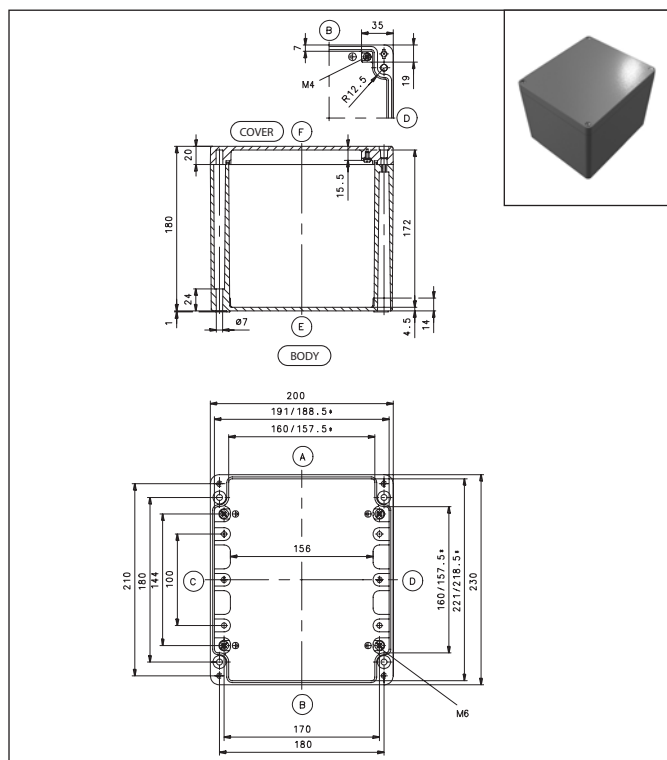
| | |
|---|-------------------------|
| Type | CA-350 |
| Weight (g) | 2730 |
| External dimension (mm) | 200 x 230 x 110 |
| Ordering data Enclosure (painted) with seal (PUR) | Part number |
| with cover screws | 1350000000 |
| unwashed, not painted, loose accessories | 1350017000 |
| | |
| | |
| | |
| | |
| Accessories (individual part or installation kit) | |
| Mounting plate | 9511015000 |
| Mounting rail TS 15 | – |
| Mounting rail TS 32 | 9821003000 |
| Mounting rail TS 35 | 9822005000 |
| Earthing rail | 9810007000 |
| External mounting brackets | 9824023000 |
| External articulated hinges | 9801047000 |
| Internal articulated hinges with cover guide** | 9801030000 |
| Silicone seal for extended temperature range (by the metre) | on request |
| | |
| Maximum possible number of threads | |
| ISO M | 12 16 20 25 32 40 50 63 |
| Side A/B | 35 15 12 8 4 3 2 2 |
| Side C/D | 26 12 8 5 3 2 2 1 |

** Enclosure preparation required

200 x 230 x 180 mm

CA-360

Aluminium enclosures



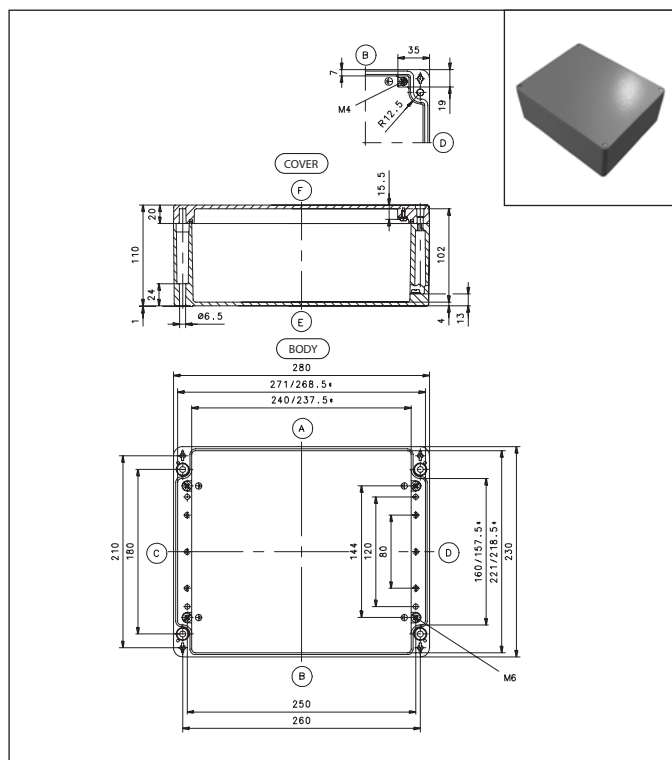
* Smaller dimension at mounting plate support

| | |
|---|-------------------------|
| Type | CA-360 |
| Weight (g) | 3680 |
| External dimension (mm) | 200 x 230 x 180 |
| Ordering data Enclosure (painted) with seal (PUR) | Part number |
| with cover screws | 1360000000 |
| unwashed, not painted, loose accessories | 1360043000 |
| | |
| | |
| | |
| | |
| Accessories (individual part or installation kit) | |
| Mounting plate | 9511015000 |
| Mounting rail TS 15 | – |
| Mounting rail TS 32 | 9821003000 |
| Mounting rail TS 35 | 9822005000 |
| Earthing rail | 9810007000 |
| External mounting brackets | 9824023000 |
| External articulated hinges | 9801047000 |
| Internal articulated hinges with cover guide** | 9801030000 |
| Silicone seal for extended temperature range (by the metre) | on request |
| | |
| Maximum possible number of threads | |
| ISO M | 12 16 20 25 32 40 50 63 |
| Side A/B | 56 32 20 13 9 5 4 4 |
| Side C/D | 52 27 18 12 8 5 3 3 |

** Enclosure preparation required

280 x 230 x 110 mm

CA-370 Aluminium enclosures



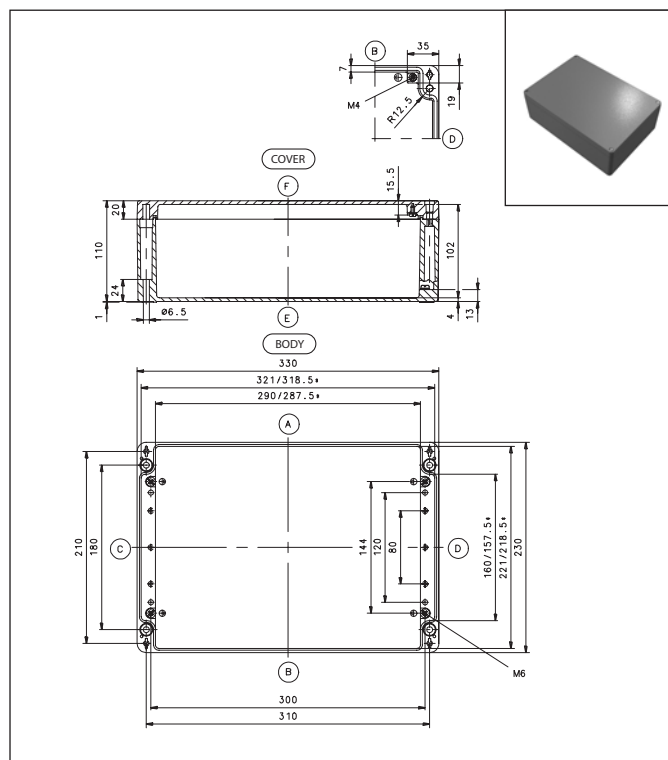
* Smaller dimension at mounting plate support

| Type | CA-370 |
|---|-------------------------|
| Weight (g) | 3840 |
| External dimension (mm) | 280 x 230 x 110 |
| Ordering data Enclosure (painted) with seal (PUR) | Part number |
| with cover screws | 1370000000 |
| unwashed, not painted, loose accessories | 1370015000 |
| | |
| | |
| | |
| | |
| | |
| Accessories (individual part or installation kit) | |
| Mounting plate | 9511016000 |
| Mounting rail TS 15 | – |
| Mounting rail TS 32 | 9821009000 |
| Mounting rail TS 35 | 9822012000 |
| Earthing rail | 9810011000 |
| External mounting brackets | 9824023000 |
| External articulated hinges | 9801047000 |
| Internal articulated hinges with cover guide** | 9801030000 |
| Silicone seal for extended temperature range (by the metre) | on request |
| | |
| Maximum possible number of threads | |
| ISO M | 12 16 20 25 32 40 50 63 |
| Side A/B | 53 25 18 11 7 4 3 3 |
| Side C/D | 26 12 8 5 3 2 2 1 |
| ** Enclosure preparation required | |

330 x 230 x 110 mm

CA-380 Aluminium enclosures

CAD files available
at www.bernstein.eu



* Smaller dimension at mounting plate support

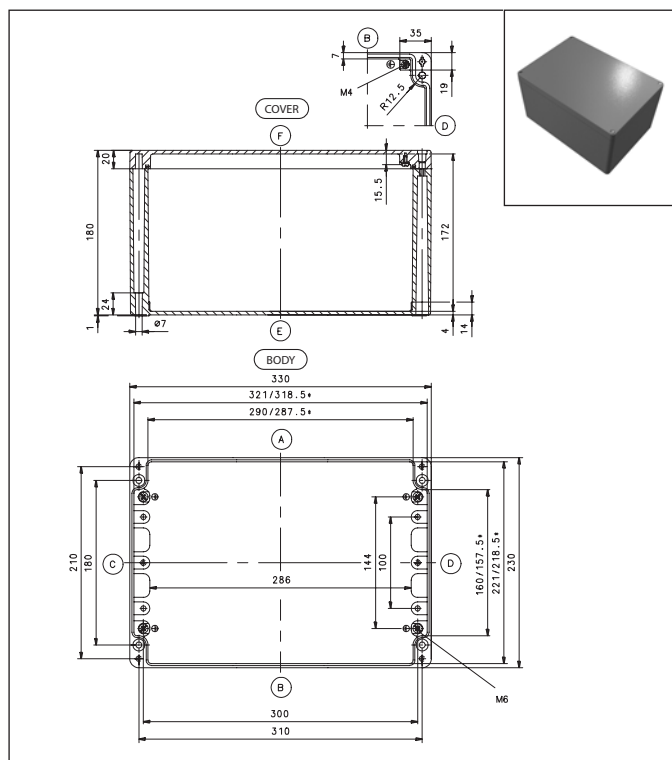
| Type | CA-380 |
|---|-------------------------|
| Weight (g) | 4270 |
| External dimension (mm) | 330 x 230 x 110 |
| Ordering data Enclosure (painted) with seal (PUR) | Part number |
| with cover screws | 1380000000 |
| unwashed, not painted, loose accessories | 1380014000 |
| | |
| | |
| | |
| | |
| | |
| Accessories (individual part or installation kit) | |
| Mounting plate | 9511017000 |
| Mounting rail TS 15 | – |
| Mounting rail TS 32 | 9821011000 |
| Mounting rail TS 35 | 9822014000 |
| Earthing rail | 9810013000 |
| External mounting brackets | 9824023000 |
| External articulated hinges | 9801047000 |
| Internal articulated hinges with cover guide** | 9801030000 |
| Silicone seal for extended temperature range (by the metre) | on request |
| | |
| Maximum possible number of threads | |
| ISO M | 12 16 20 25 32 40 50 63 |
| Side A/B | 65 30 23 12 9 5 4 3 |
| Side C/D | 24 12 8 5 3 2 2 1 |
| ** Enclosure preparation required | |

Aluminium Enclosures – Series CA

330 x 230 x 180 mm

CA-390

Aluminium enclosures



* Smaller dimension at mounting plate support

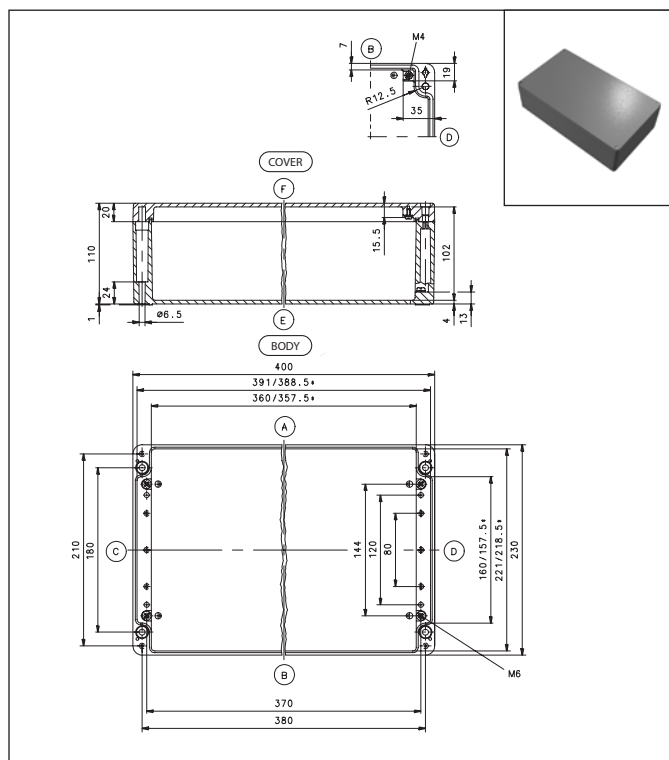
| | |
|---|-------------------------|
| Type | CA-390 |
| Weight (g) | 5300 |
| External dimension (mm) | 330 x 230 x 180 |
| Ordering data Enclosure (painted) with seal (PUR) | Part number |
| with cover screws | 1390000000 |
| unwashed, not painted, loose accessories | 1390012000 |
| | |
| | |
| | |
| | |
| Accessories (individual part or installation kit) | |
| Mounting plate | 9511017000 |
| Mounting rail TS 15 | – |
| Mounting rail TS 32 | 9821011000 |
| Mounting rail TS 35 | 9822014000 |
| Earthing rail | 9810013000 |
| External mounting brackets | 9824023000 |
| External articulated hinges | 9801047000 |
| Internal articulated hinges with cover guide** | 9801030000 |
| Silicone seal for extended temperature range (by the metre) | on request |
| | |
| Maximum possible number of threads | |
| ISO M | 12 16 20 25 32 40 50 63 |
| Side A/B | 108 54 40 25 15 9 8 6 |
| Side C/D | 52 27 18 12 8 5 3 3 |

** Enclosure preparation required

400 x 230 x 110 mm

CA-400

Aluminium enclosures



* Smaller dimension at mounting plate support

| | |
|---|-------------------------|
| Type | CA-400 |
| Weight (g) | 4870 |
| External dimension (mm) | 400 x 230 x 110 |
| Ordering data Enclosure (painted) with seal (PUR) | Part number |
| with cover screws | 1400000000 |
| unwashed, not painted, loose accessories | 1400013000 |
| | |
| | |
| | |
| | |
| Accessories (individual part or installation kit) | |
| Mounting plate | 9511294000 |
| Mounting rail TS 15 | – |
| Mounting rail TS 32 | 9821014000 |
| Mounting rail TS 35 | 9822017000 |
| Earthing rail | 9810015000 |
| External mounting brackets | 9824023000 |
| External articulated hinges | 9801047000 |
| Internal articulated hinges with cover guide** | 9801030000 |
| Silicone seal for extended temperature range (by the metre) | on request |
| | |
| Maximum possible number of threads | |
| ISO M | 12 16 20 25 32 40 50 63 |
| Side A/B | 80 38 27 17 11 6 5 4 |
| Side C/D | 26 12 8 5 3 2 2 1 |

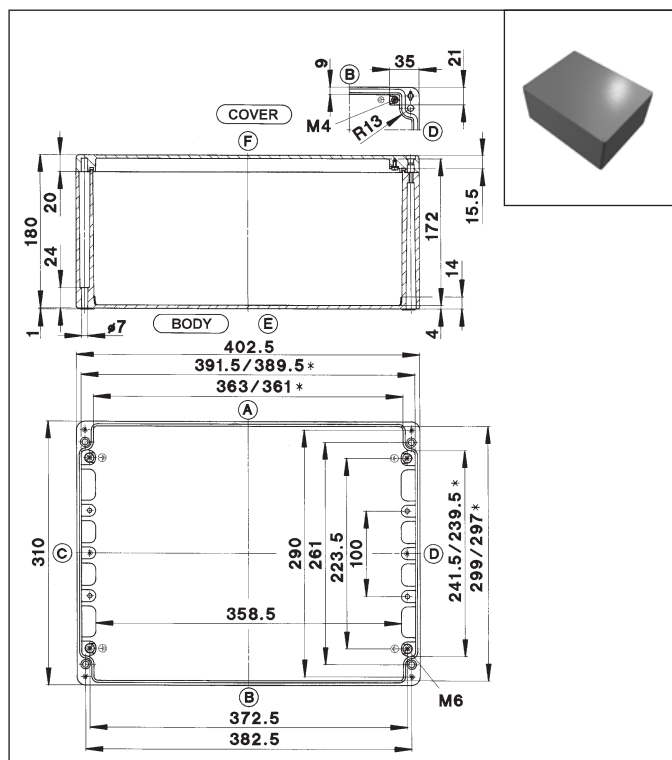
** Enclosure preparation required

Aluminium Enclosures – Series CA

402,5 x 310 x 180 mm

CA-460

Aluminium enclosures



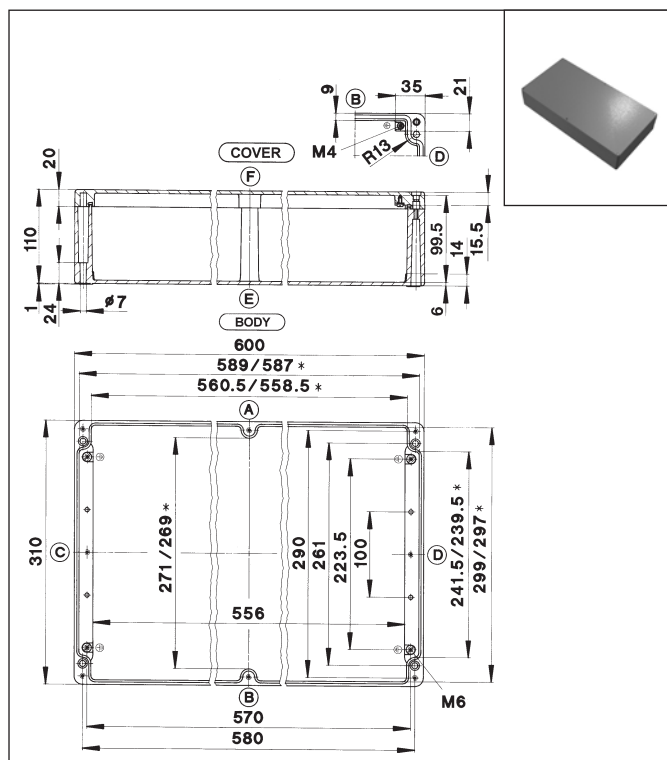
* Smaller dimension at mounting plate support

| | |
|---|-------------------------|
| Type | CA-460 |
| Weight (g) | 7420 |
| External dimension (mm) | 402,5 x 310 x 180 |
| Ordering data Enclosure (painted) with seal (PUR) | Part number |
| with cover screws | 1460000000 |
| unwashed, not painted, loose accessories | 1460049000 |
| | |
| | |
| | |
| | |
| | |
| Accessories (individual part or installation kit) | |
| Mounting plate | 9511020000 |
| Mounting rail TS 15 | – |
| Mounting rail TS 32 | 9821014000 |
| Mounting rail TS 35 | 9822017000 |
| Earthing rail | 9810015000 |
| External mounting brackets | 9824023000 |
| External articulated hinges | 9801047000 |
| Internal articulated hinges with cover guide** | 9801030000 |
| Silicone seal for extended temperature range (by the metre) | on request |
| | |
| Maximum possible number of threads | |
| ISO M | 12 16 20 25 32 40 50 63 |
| Side A/B | 136 68 50 30 21 12 10 8 |
| Side C/D | 74 38 28 18 12 8 6 3 |
| ** Enclosure preparation required | |

600 x 310 x 110 mm

CA-470

Aluminium enclosures



* Smaller dimension at mounting plate support

| | |
|---|-------------------------|
| Type | CA-470 |
| Weight (g) | 8480 |
| External dimension (mm) | 600 x 310 x 110 |
| Ordering data Enclosure (painted) with seal (PUR) | Part number |
| with cover screws | 1470000000 |
| unwashed, not painted, loose accessories | 1470062000 |
| | |
| | |
| | |
| | |
| Accessories (individual part or installation kit) | |
| Mounting plate | 9511021000 |
| Mounting rail TS 15 | – |
| Mounting rail TS 32 | 9821016000 |
| Mounting rail TS 35 | 9822019000 |
| Earthing rail | 9810017000 |
| External mounting brackets | 9824023000 |
| External articulated hinges | 9801047000 |
| Internal articulated hinges with cover guide** | 9801030000 |
| Silicone seal for extended temperature range (by the metre) | on request |
| | |
| Maximum possible number of threads | |
| ISO M | 12 16 20 25 32 40 50 63 |
| Side A/B | 120 56 42 24 16 8 8 6 |
| Side C/D | 38 17 13 7 5 4 3 2 |

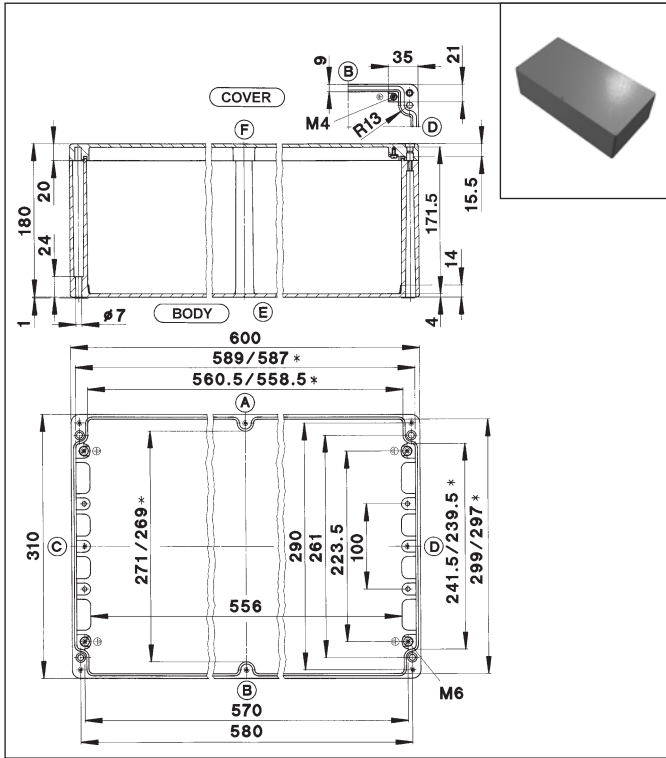
** Enclosure preparation required

600 x 310 x 180 mm

CA-480

Aluminium enclosures

**CAD files available
at www.bernstein.eu**



* Smaller dimension at mounting plate support

| | |
|---|---------------------------|
| Type | CA-480 |
| Weight (g) | 10840 |
| External dimension (mm) | 600 x 310 x 180 |
| Ordering data Enclosure (painted) with seal (PUR) | Part number |
| with cover screws | 1480000000 |
| unwashed, not painted, loose accessories | 1480017000 |
| | |
| | |
| | |
| | |
| | |
| Accessories (individual part or installation kit) | |
| Mounting plate | 9511021000 |
| Mounting rail TS 15 | – |
| Mounting rail TS 32 | 9821016000 |
| Mounting rail TS 35 | 9822019000 |
| Earthing rail | 9810017000 |
| External mounting brackets | 9824023000 |
| External articulated hinges | 9801047000 |
| Internal articulated hinges with cover guide** | 9801030000 |
| Silicone seal for extended temperature range (by the metre) | on request |
| | |
| Maximum possible number of threads | |
| ISO M | 12 16 20 25 32 40 50 63 |
| Side A/B | 200 100 76 46 30 18 14 12 |
| Side C/D | 74 38 28 18 12 8 6 5 |
| ** Enclosure preparation required | |

Polycarbonate and ABS Enclosures – Series CT

BERNSTEIN Series CT plastic enclosures are manufactured from high-grade polycarbonate or ABS. They are particularly suitable for encapsulating electrical and electronic components as well as complete small-scale controllers. All enclosures are available with a transparent polycarbonate cover. The enclosures correspond to protection class IP65 in accordance with DIN EN 60529.

Attachment bosses are provided on the base of the plastic enclosures for mounting built-in components. The components can be simply secured with the self-tapping mounting screws that come with the enclosure. With their attachment bosses in the base, BERNSTEIN plastic enclosures offer many direct mounting options. Mounting rails can be installed without mounting plates on the central bosses.

BERNSTEIN Series CT enclosures are supplied as standard with the quick-release fastener developed and patented by BERNSTEIN. The quick-release fasteners that come with the enclosure are simply pressed and locked into the holes in the cover. They are made from stainless steel. The protection class (on the standard enclosure) is ensured by a factory-fitted seal. BERNSTEIN polycarbonate and ABS enclosures are produced as standard in the colour RAL 7035 (light grey). On account of its material properties, the polycarbonate version offers specific advantages in terms of impact strength, UV resistance and operating temperature range. Thanks to the many attachment bosses in the body, both versions provide many direct mounting options.

Technical data

Material

Polycarbonate, transparent polycarbonate or ABS

Seal

Foamed PUR seal
Neoprene (CR) round cord (silicone-free)
Silicone round cord

Quick-release fastener

Stainless steel, self-locking, cross recessed head

Optionally:

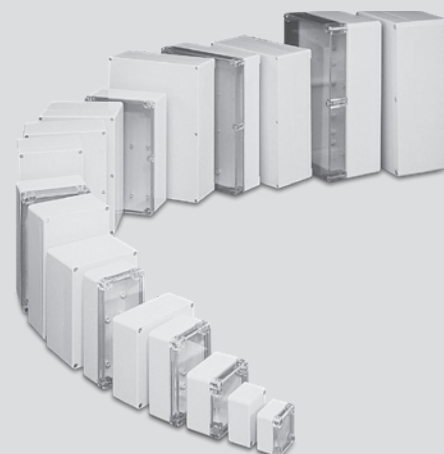
Stainless steel cover screw, cross recessed head
Sealed cover screws, galvanised steel, (9 S 20 K), slot head

Colour

RAL 7035 (light grey)
Other colours (dyeing) for large quantities available on request

Temperature range of CT enclosures

–40°C to +120°C (Polycarbonate)
–40°C to +80°C (ABS)



Temperature range of seals

Standard:

–40°C to +100°C (PUR seal)

Optionally:

–30°C to +80°C (Neoprene seal)

–60°C to +130°C (silicone seal)

Protection class

IP65

Approbations

(Label on demand)

c UL us (polycarbonate enclosures)

c CSA us (polycarbonate enclosures)



| Polycarbonate enclosure | | | | | Polycarbonate enclosure with transparent cover (PC) | | ABS enclosure | | ABS enclosure with transparent cover (PC) | | | |
|-------------------------|---|-----|---|-----|---|--------|----------------|----------|---|--------|----------------|----------|
| Dimensions/mm | | | | | Article number | Type | Article number | Type | Article number | Type | Article number | Type |
| L | x | W | x | H | | | | | | | | |
| 52 | x | 50 | x | 35 | 2500000000 | CT-501 | 2501000000 | CT-501 T | 3500000000 | CT-502 | 3501000000 | CT-502 T |
| 65 | x | 50 | x | 35 | 2520000000 | CT-521 | 2521000000 | CT-521 T | 3520000000 | CT-522 | 3521000000 | CT-522 T |
| 82 | x | 80 | x | 55 | 2540000000 | CT-541 | 2541000000 | CT-541 T | 3540000000 | CT-542 | 3541000000 | CT-542 T |
| 82 | x | 80 | x | 85 | 2560000000 | CT-561 | 2561000000 | CT-561 T | 3560000000 | CT-562 | 3561000000 | CT-562 T |
| 120 | x | 80 | x | 55 | 2580000000 | CT-581 | 2581000000 | CT-581 T | 3580000000 | CT-582 | 3581000000 | CT-582 T |
| 120 | x | 80 | x | 85 | 2600000000 | CT-601 | 2601000000 | CT-601 T | 3600000000 | CT-602 | 3601000000 | CT-602 T |
| 160 | x | 80 | x | 55 | 2620000000 | CT-621 | 2621000000 | CT-621 T | 3620000000 | CT-622 | 3621000000 | CT-622 T |
| 160 | x | 80 | x | 85 | 2640000000 | CT-641 | 2641000000 | CT-641 T | 3640000000 | CT-642 | 3641000000 | CT-642 T |
| 122 | x | 120 | x | 55 | 2660000000 | CT-661 | 2661000000 | CT-661 T | 3660000000 | CT-662 | 3661000000 | CT-662 T |
| 122 | x | 120 | x | 85 | 2680000000 | CT-681 | 2681000000 | CT-681 T | 3680000000 | CT-682 | 3681000000 | CT-682 T |
| 160 | x | 120 | x | 90 | 2720000000 | CT-721 | 2721000000 | CT-721 T | 3720000000 | CT-722 | 3721000000 | CT-722 T |
| 200 | x | 120 | x | 75 | 2760000000 | CT-761 | 2761000000 | CT-761 T | 3760000000 | CT-762 | 3761000000 | CT-762 T |
| 200 | x | 120 | x | 90 | 2780000000 | CT-781 | 2781000000 | CT-781 T | 3780000000 | CT-782 | 3781000000 | CT-782 T |
| 240 | x | 120 | x | 100 | 2800000000 | CT-801 | 2801000000 | CT-801 T | 3800000000 | CT-802 | 3801000000 | CT-802 T |
| 200 | x | 150 | x | 75 | 2820000000 | CT-821 | 2821000000 | CT-821 T | 3820000000 | CT-822 | 3821000000 | CT-822 T |
| 240 | x | 160 | x | 90 | 2840000000 | CT-841 | 2841000000 | CT-841 T | 3840000000 | CT-842 | 3841000000 | CT-842 T |
| 240 | x | 160 | x | 120 | 2860000000 | CT-861 | 2861000000 | CT-861 T | 3860000000 | CT-862 | 3861000000 | CT-862 T |
| 250 | x | 160 | x | 90 | 2900000000 | CT-901 | 2901000000 | CT-901 T | 3900000000 | CT-902 | 3901000000 | CT-902 T |
| 250 | x | 160 | x | 120 | 2910000000 | CT-911 | 2911000000 | CT-911 T | 3910000000 | CT-912 | 3911000000 | CT-912 T |
| 360 | x | 200 | x | 150 | 2880000000 | CT-881 | 2881000000 | CT-881 T | 3880000000 | CT-882 | 3881000000 | CT-882 T |
| 300 | x | 230 | x | 86 | 2870000000 | CT-871 | 2871000000 | CT-871 T | 3870000000 | CT-872 | 3871000000 | CT-872 T |
| 300 | x | 230 | x | 110 | 2890000000 | CT-891 | 2891000000 | CT-891 T | 3890000000 | CT-892 | 3891000000 | CT-892 T |

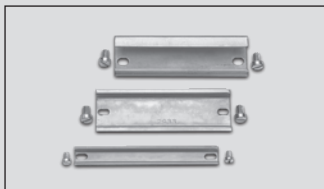
Assembling of components

This is just a selection of possible assembly components that BERNSTEIN offers. Contact us, we can incorporate components from all leading manufacturers to satisfy your individual demand. You find further information about "System solutions" on page 12.



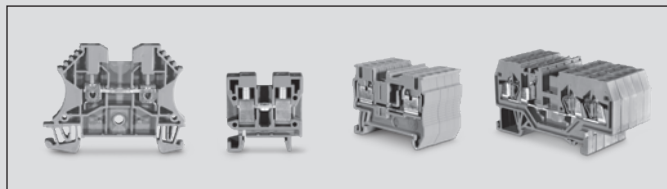
Mounting plates

Made from laminated paper (Pertinax) (thickness: CT-50 to CT-60: 1.5 mm; CT-62 to CT-78: 2.0 mm; CT-80 to CT-91: 2.5 mm) for versatile mounting of built-in components.



Mounting rails

conforming to standards TS15 or TS32 and TS 35 made from steel; surface treated for accepting terminal blocks.



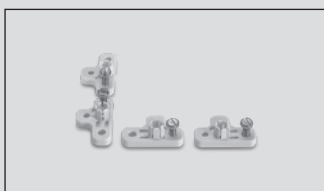
Terminal blocks

of all renowned manufacturers are used.



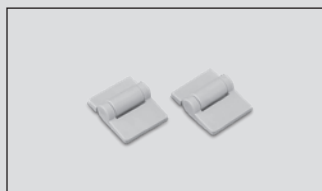
Earthing bars

made from galvanised steel for combining and connecting PE conductors.



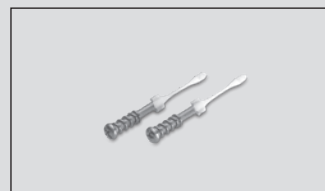
External mounting brackets

made from polycarbonate for mounting enclosures without opening the covers. Different bracket arrangement options offset by 90°. Colour RAL 7035.



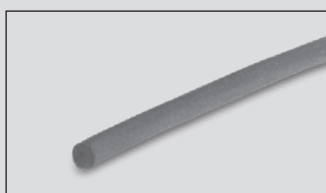
External articulated hinges

made from polycarbonate for hinged mounting of enclosure cover. Opening range of cover approx. 195°, latching at 170°, articulated hinges are simply pressed into holes (CT-88: secured by screws).



Flexible quick-release fastener/internal articulated hinges

for captive mounting and strain relief for enclosure cover. Cover opening range > 180°. Stainless steel with injection-moulded polyamide ends.



Silicon, EPDM or HF seal

with increased temperature resistance (see indications left side) or to protect sensitive electronic equipment against high-frequency radiation (HF seal). If a HF seal is used, an additional coating of the inside of the enclosure is required.



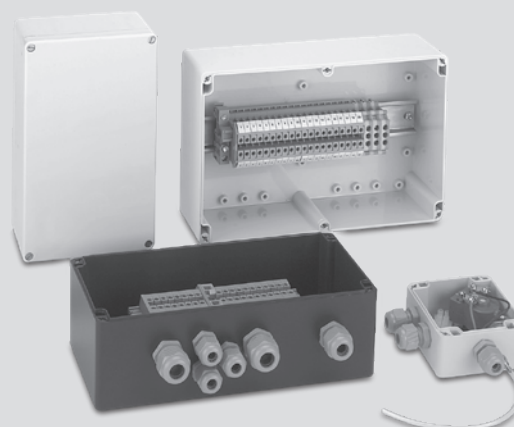
Brass press-in bushes

with metric fastening screws M3 (M4 on CT-88), for mounting built-in components with metric screws in the mounting bushes in the enclosure body.



Cable glands

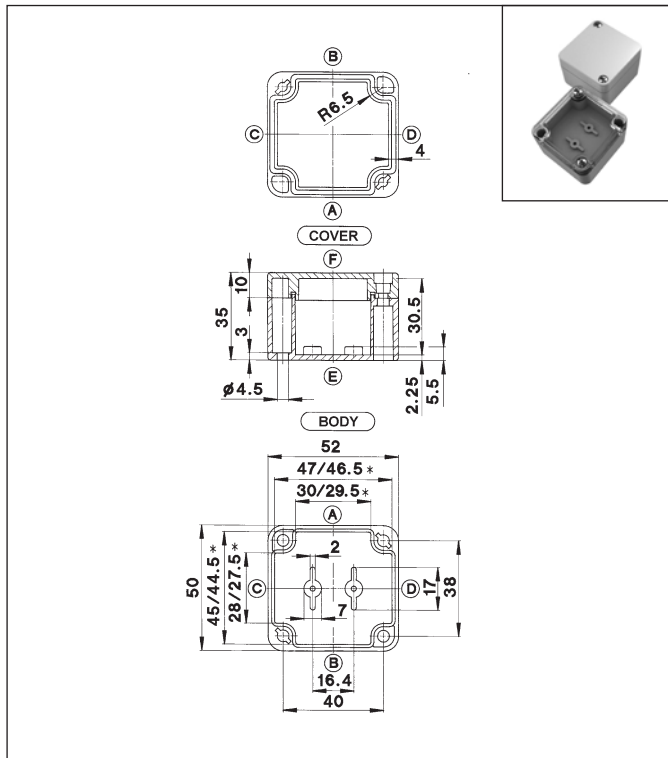
Euro-2000 (Euro-Top) screwed cable glands, plastic (polyamide 6, RAL 7035), including integrated strain relief. Sealing element NEOPRENE. Temperature range: -30°C bis +80°C (see also page 71). Other cable glands on demand.



Polycarbonate and ABS Enclosures – Series CT

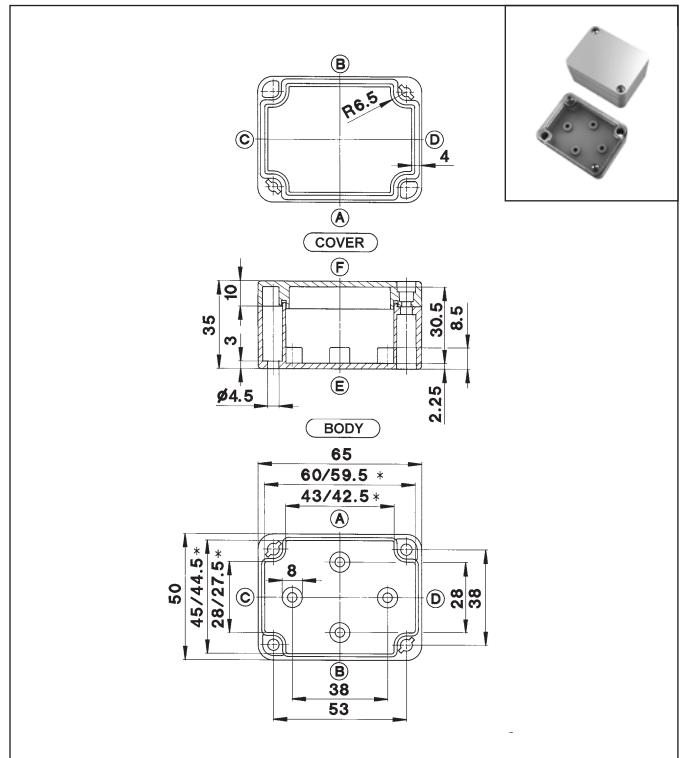
52 x 50 x 35 mm

CT-501 Polycarbonate enclosures
CT-502 ABS enclosures



65 x 50 x 35 mm

CT-521 Polycarbonate enclosures
CT-522 ABS enclosures



* Smaller dimension at mounting plate support

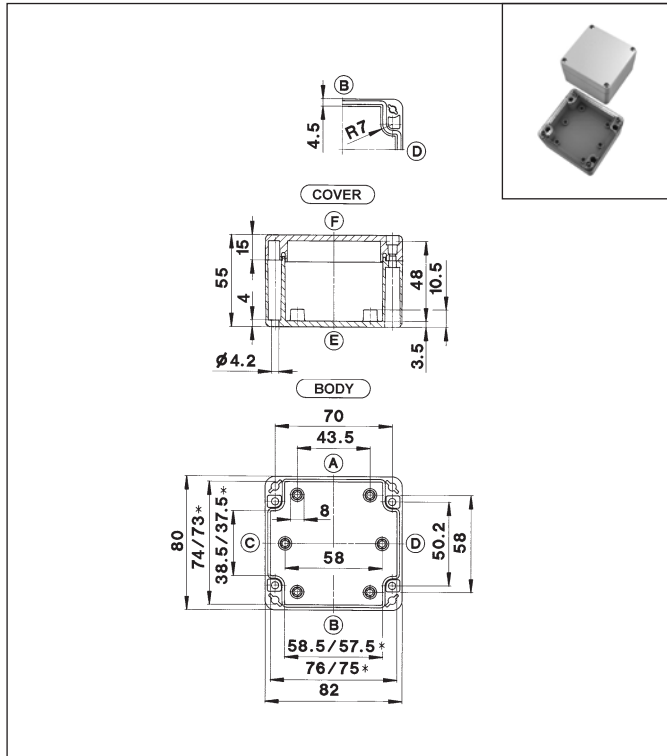
| Type | CT-501 PC | CT-502 ABS |
|---|-------------------------------------|----------------------|
| Weight (g) | 40 (PC) | 38 (ABS) |
| External dimension (mm) | 52 x 50 x 35 | |
| Ordering data | Enclosure (painted) with seal (PUR) | Part number |
| PC, with quick-release fastener | | 2500000000 |
| PC, with screw fastener | | 2500001000 |
| PC, with transparent cover (PC) and quick-release fastener | | 2501000000 |
| ABS, with quick-release fastener | | 3500000000 |
| ABS, with screw fastener | | 3500001000 |
| ABS, with transparent cover (PC) and quick-release fastener | | 3501000000 |
| Accessories (individual part or installation kit) | | |
| Mounting plate | | 9512009000 |
| Mounting rail TS 15 | | – |
| Mounting rail TS 32 | | – |
| Mounting rail TS 35 | | – |
| Earthing rail (secured on central bosses C/D) | | – |
| External mounting brackets | | – |
| External articulated hinges** | | – |
| Internal articulated hinges, flexible, | | |
| for enclosure with quick-release fastener | | – |
| Silicone seal for extended temperature range (by the metre) | | – |
| Mounting bushes with 4 screws M3 x 8 | | – |
| Maximum possible number of threads | | |
| ISO M | 12 | 16 20 25 32 40 50 63 |
| Side A/B | 1 | 0 0 0 0 0 0 0 0 |
| Side C/D | 1 | 0 0 0 0 0 0 0 0 |
| ** Enclosure preparation required | | |

* Smaller dimension at mounting plate support

| Type | CT-521 PC | CT-522 ABS |
|---|-------------------------------------|----------------------|
| Weight (g) | 50 (PC) | 47 (ABS) |
| External dimension (mm) | 65 x 50 x 35 | |
| Ordering data | Enclosure (painted) with seal (PUR) | Part number |
| PC, with quick-release fastener | | 2520000000 |
| PC, with screw fastener | | 2520001000 |
| PC, with transparent cover (PC) and quick-release fastener | | 2521000000 |
| ABS, with quick-release fastener | | 3520000000 |
| ABS, with screw fastener | | 3520001000 |
| ABS, with transparent cover (PC) and quick-release fastener | | 3521000000 |
| Accessories (individual part or installation kit) | | |
| Mounting plate | | 9512010000 |
| Mounting rail TS 15 | | 9820001000 |
| Mounting rail TS 32 | | – |
| Mounting rail TS 35 | | – |
| Earthing rail (secured on central bosses C/D) | | – |
| External mounting brackets | | – |
| External articulated hinges** | | – |
| Internal articulated hinges, flexible, | | |
| for enclosure with quick-release fastener | | – |
| Silicone seal for extended temperature range (by the metre) | | – |
| Mounting bushes with 4 screws M3 x 8 | | 9800025000 |
| Maximum possible number of threads | | |
| ISO M | 12 | 16 20 25 32 40 50 63 |
| Side A/B | 2 | 0 0 0 0 0 0 0 0 |
| Side C/D | 0 | 0 0 0 0 0 0 0 0 |
| ** Enclosure preparation required | | |

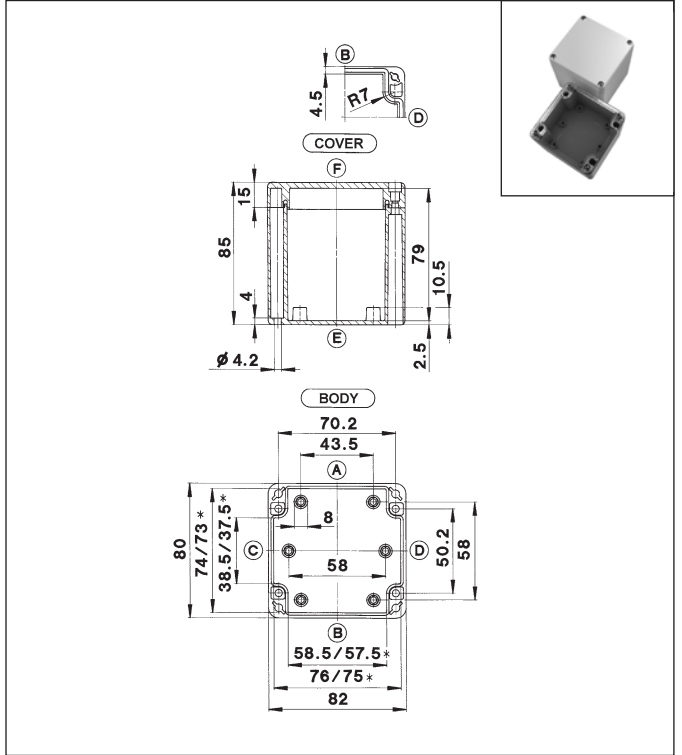
82 x 80 x 55 mm

CT-541 Polycarbonate enclosures
CT-542 ABS enclosures



82 x 80 x 85 mm

CT-561 Polycarbonate enclosures
CT-562 ABS enclosures



CAD files available
at www.bernstein.eu

* Smaller dimension at mounting plate support

| Type | CT-541 PC | CT-542 ABS |
|---|--------------------|----------------------|
| Weight (g) | 140 (PC) | 116 (ABS) |
| External dimension (mm) | 82 x 80 x 55 | |
| Ordering data Enclosure (painted) with seal (PUR) | Part number | |
| PC, with quick-release fastener | 2540000000 | |
| PC, with screw fastener | 2540001000 | |
| PC, with transparent cover (PC) and quick-release fastener | 2541000000 | |
| ABS, with quick-release fastener | 3540000000 | |
| ABS, with screw fastener | 3540001000 | |
| ABS, with transparent cover (PC) and quick-release fastener | 3541000000 | |
| | | |
| Accessories (individual part or installation kit) | | |
| Mounting plate | 9512011000 | |
| Mounting rail TS 15 | 9820004000 | |
| Mounting rail TS 32 | – | |
| Mounting rail TS 35 | 9822000000 | |
| Earthing rail (secured on central bosses C/D) | – | |
| External mounting brackets | 9802002000 | |
| External articulated hinges** | 9802025000 | |
| Internal articulated hinges, flexible, | | |
| for enclosure with quick-release fastener | 9801076000 | |
| Silicone seal for extended temperature range (by the metre) | on request | |
| Mounting bushes with 4 screws M3 x 8 | 9800025000 | |
| Maximum possible number of threads | | |
| ISO M | 12 | 16 20 25 32 40 50 63 |
| Side A/B | 5 | 2 2 0 0 0 0 0 |
| Side C/D | 2 | 1 0 0 0 0 0 0 |
| ** Enclosure preparation required | | |

** Enclosure preparation required

* Smaller dimension at mounting plate support

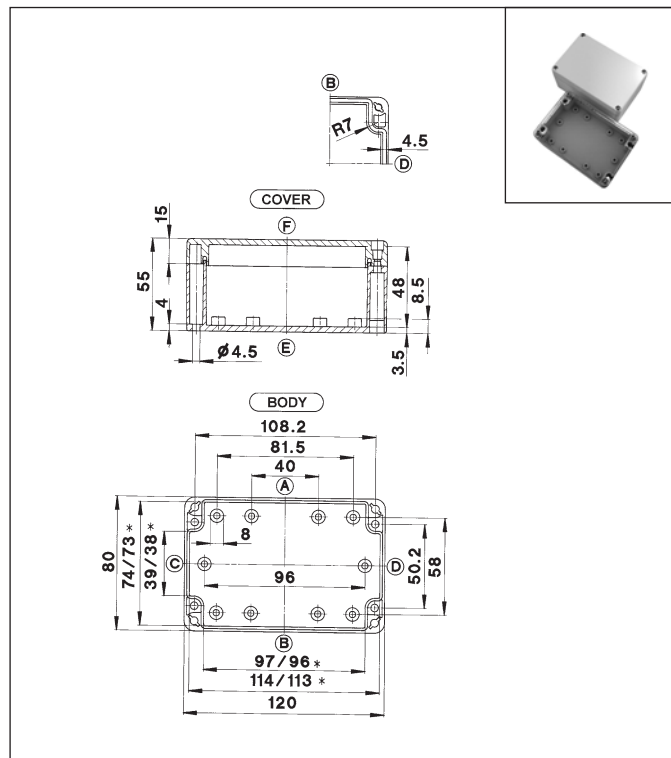
| Type | CT-561 PC | CT-562 ABS |
|---|--------------------|----------------------|
| Weight (g) | 175 (PC) | 150 (ABS) |
| External dimension (mm) | 82 x 80 x 85 | |
| Ordering data Enclosure (painted) with seal (PUR) | Part number | |
| PC, with quick-release fastener | 2560000000 | |
| PC, with screw fastener | 2560001000 | |
| PC, with transparent cover (PC) and quick-release fastener | 2561000000 | |
| ABS, with quick-release fastener | 3560000000 | |
| ABS, with screw fastener | 3560001000 | |
| ABS, with transparent cover (PC) and quick-release fastener | 3561000000 | |
| | | |
| | | |
| Accessories (individual part or installation kit) | | |
| Mounting plate | 9512011000 | |
| Mounting rail TS 15 | 9820004000 | |
| Mounting rail TS 32 | – | |
| Mounting rail TS 35 | 9822000000 | |
| Earthing rail (secured on central bosses C/D) | – | |
| External mounting brackets | 9802002000 | |
| External articulated hinges** | 9802025000 | |
| Internal articulated hinges, flexible, | | |
| for enclosure with quick-release fastener | 9801076000 | |
| Silicone seal for extended temperature range (by the metre) | on request | |
| Mounting bushes with 4 screws M3 x 8 | 9800025000 | |
| Maximum possible number of threads | | |
| ISO M | 12 | 16 20 25 32 40 50 63 |
| Side A/B | 10 | 5 3 2 1 1 1 0 |
| Side C/D | 5 | 2 1 1 1 0 0 0 |
| ** Enclosure preparation required | | |

** Enclosure preparation required

Polycarbonate and ABS Enclosures – Series CT

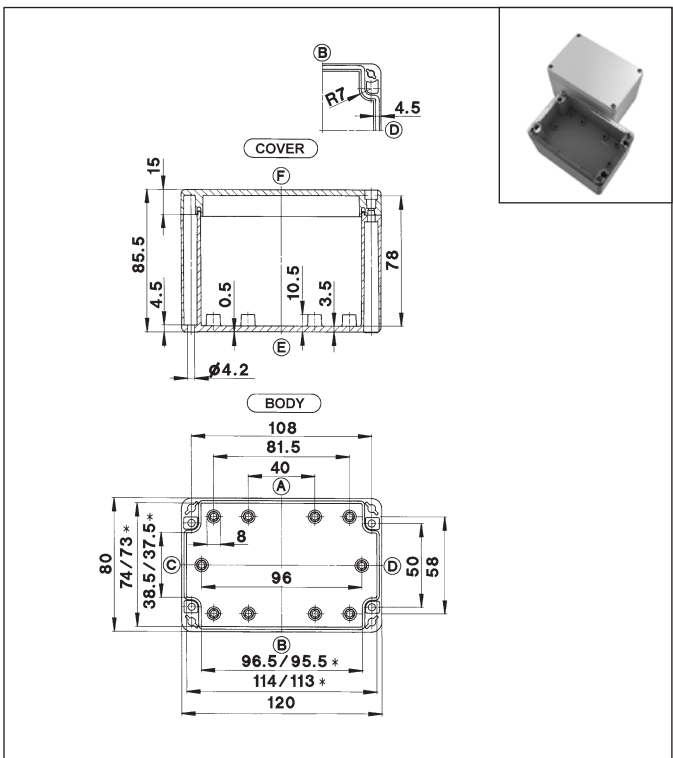
120 x 80 x 55 mm

CT-581 Polycarbonate enclosures
CT-582 ABS enclosures



120 x 80 x 85 mm

CT-601 Polycarbonate enclosures
CT-602 ABS enclosures



* Smaller dimension at mounting plate support

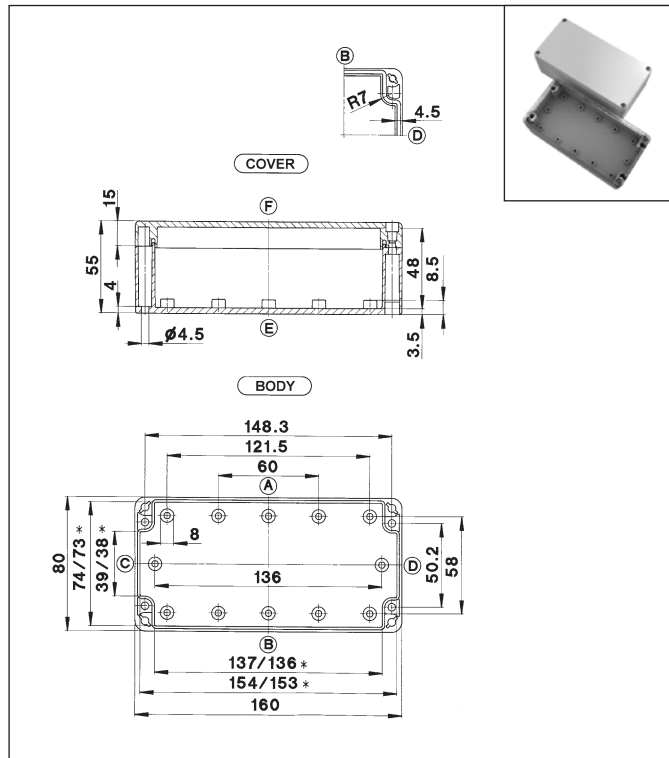
| Type | CT-581 PC | CT-582 ABS |
|---|--------------------|----------------------|
| Weight (g) | 180 (PC) | 135 (ABS) |
| External dimension (mm) | 120 x 80 x 55 | |
| Ordering data Enclosure (painted) with seal (PUR) | Part number | |
| PC, with quick-release fastener | 2580000000 | |
| PC, with screw fastener | 2580001000 | |
| PC, with transparent cover (PC) and quick-release fastener | 2581000000 | |
| ABS, with quick-release fastener | 3580000000 | |
| ABS, with screw fastener | 3580001000 | |
| ABS, with transparent cover (PC) and quick-release fastener | 3581000000 | |
| | | |
| Accessories (individual part or installation kit) | | |
| Mounting plate | 9512012000 | |
| Mounting rail TS 15 | 9820009000 | |
| Mounting rail TS 32 | – | |
| Mounting rail TS 35 | 9822002000 | |
| Earthing rail (secured on central bosses C/D) | 9810001000 | |
| External mounting brackets | 9802002000 | |
| External articulated hinges** | 9802025000 | |
| Internal articulated hinges, flexible, for enclosure with quick-release fastener | 9801076000 | |
| Silicone seal for extended temperature range (by the metre) | auf Anfrage | |
| Mounting bushes with 4 screws M3 x 8 | 9800040000 | |
| Maximum possible number of threads | | |
| ISO M | 12 | 16 20 25 32 40 50 63 |
| Side A/B | 9 | 4 3 2 0 0 0 0 |
| Side C/D | 2 | 1 1 0 0 0 0 0 |
| ** Enclosure preparation required | | |

* Smaller dimension at mounting plate support

| Type | CT-601 PC CT-602 ABS | |
|---|----------------------|----------------------|
| Weight (g) | 225 (PC) | 192 (ABS) |
| External dimension (mm) | 120 x 80 x 85 | |
| Ordering data Enclosure (painted) with seal (PUR) | Part number | |
| PC, with quick-release fastener | 2600000000 | |
| PC, with screw fastener | 2600001000 | |
| PC, with transparent cover (PC) and quick-release fastener | 2601000000 | |
| ABS, with quick-release fastener | 3600000000 | |
| ABS, with screw fastener | 3600001000 | |
| ABS, with transparent cover (PC) and quick-release fastener | 3601000000 | |
| | | |
| Accessories (individual part or installation kit) | | |
| Mounting plate | 9512012000 | |
| Mounting rail TS 15 | 9820009000 | |
| Mounting rail TS 32 | – | |
| Mounting rail TS 35 | 9822002000 | |
| Earthing rail (secured on central bosses C/D) | 9810001000 | |
| External mounting brackets | 9802002000 | |
| External articulated hinges** | 9802025000 | |
| Internal articulated hinges, flexible, for enclosure with quick-release fastener | 9801076000 | |
| Silicone seal for extended temperature range (by the metre) | on request | |
| Mounting bushes with 4 screws M3 x 8 | 9800025000 | |
| Maximum possible number of threads | | |
| ISO M | 12 | 16 20 25 32 40 50 63 |
| Side A/B | 15 | 6 6 3 2 1 1 0 |
| Side C/D | 5 | 2 1 1 1 0 0 0 |
| ** Enclosure preparation required | | |

160 x 80 x 55 mm

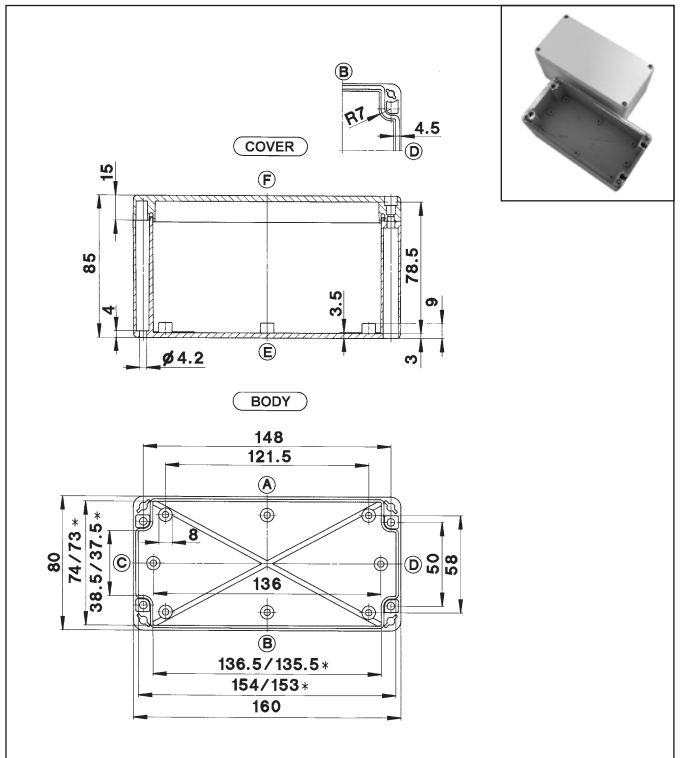
CT-621 Polycarbonate enclosures
CT-622 ABS enclosures



160 x 80 x 85 mm

CT-641 Polycarbonate enclosures
CT-642 ABS enclosures

CAD files available
at www.bernstein.eu



* Smaller dimension at mounting plate support

| Type | CT-621 PC | CT-622 ABS |
|---|--------------------|----------------------|
| Weight (g) | 225 (PC) | 199 (ABS) |
| External dimension (mm) | 160 x 80 x 55 | |
| Ordering data Enclosure (painted) with seal (PUR) | Part number | |
| PC, with quick-release fastener | 2620000000 | |
| PC, with screw fastener | 2620001000 | |
| PC, with transparent cover (PC) and quick-release fastener | 2621000000 | |
| ABS, with quick-release fastener | 3620000000 | |
| ABS, with screw fastener | 3620001000 | |
| ABS, with transparent cover (PC) and quick-release fastener | 3621000000 | |
| | | |
| | | |
| Accessories (individual part or installation kit) | | |
| Mounting plate | 9512013000 | |
| Mounting rail TS 15 | 9820013000 | |
| Mounting rail TS 32 | – | |
| Mounting rail TS 35 | 9822028000 | |
| Earthing rail (secured on central bosses C/D) | 9810005000 | |
| External mounting brackets | 9802002000 | |
| External articulated hinges** | 9802025000 | |
| Internal articulated hinges, flexible, for enclosure with quick-release fastener | 9801076000 | |
| Silicone seal for extended temperature range (by the metre) | on request | |
| Mounting bushes with 4 screws M3 x 8 | 9800040000 | |
| Maximum possible number of threads | | |
| ISO M | 12 | 16 20 25 32 40 50 63 |
| Side A/B | 11 | 5 4 3 0 0 0 0 |
| Side C/D | 2 | 1 1 0 0 0 0 0 |
| ** Enclosure preparation required | | |

** Enclosure preparation required

* Smaller dimension at mounting plate support

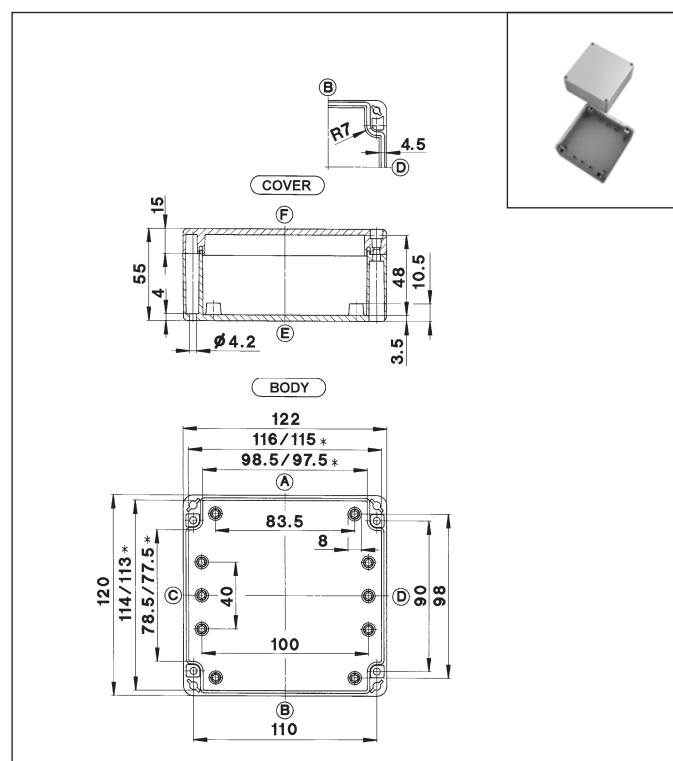
| Type | CT-641 PC | CT-642 ABS | | | | | | |
|---|--------------------|------------|----|----|----|----|----|----|
| Weight (g) | 240 (PC) | 225 (ABS) | | | | | | |
| External dimension (mm) | 160 x 80 x 85 | | | | | | | |
| Ordering data Enclosure (painted) with seal (PUR) | Part number | | | | | | | |
| PC, with quick-release fastener | 2640000000 | | | | | | | |
| PC, with screw fastener | 2640001000 | | | | | | | |
| PC, with transparent cover (PC) and quick-release fastener | 2641000000 | | | | | | | |
| ABS, with quick-release fastener | 3640000000 | | | | | | | |
| ABS, with screw fastener | 3640001000 | | | | | | | |
| ABS, with transparent cover (PC) and quick-release fastener | 3641000000 | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Accessories (individual part or installation kit) | | | | | | | | |
| Mounting plate | 9512013000 | | | | | | | |
| Mounting rail TS 15 | 9820013000 | | | | | | | |
| Mounting rail TS 32 | – | | | | | | | |
| Mounting rail TS 35 | 9822028000 | | | | | | | |
| Earthing rail (secured on central bosses C/D) | 9810005000 | | | | | | | |
| External mounting brackets | 9802002000 | | | | | | | |
| External articulated hinges** | 9802025000 | | | | | | | |
| Internal articulated hinges, flexible, for enclosure with quick-release fastener | 9801076000 | | | | | | | |
| Silicone seal for extended temperature range (by the metre) | auf Anfrage | | | | | | | |
| Mounting bushes with 4 screws M3 x 8 | 9800025000 | | | | | | | |
| Maximum possible number of threads | | | | | | | | |
| ISO M | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 |
| Side A/B | 22 | 10 | 8 | 5 | 3 | 2 | 2 | 0 |
| Side C/D | 5 | 2 | 1 | 1 | 1 | 0 | 0 | 0 |
| ** Enclosure preparation required | | | | | | | | |

** Enclosure preparation required

Polycarbonate and ABS Enclosures – Series CT

122 x 120 x 55 mm

CT-661 Polycarbonate enclosures
CT-662 ABS enclosures

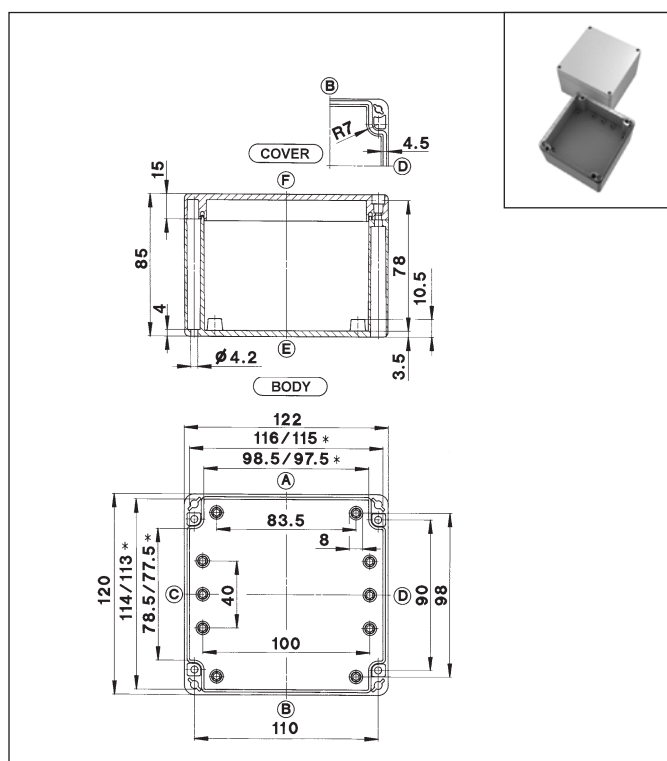


* Smaller dimension at mounting plate support

| Type | CT-661 PC | CT-662 ABS | | | | | | |
|---|--------------------|------------|----|----|----|----|----|----|
| Weight (g) | 240 (PC) | 218 (ABS) | | | | | | |
| External dimension (mm) | 122 x 120 x 55 | | | | | | | |
| Ordering data Enclosure (painted) with seal (PUR) | Part number | | | | | | | |
| PC, with quick-release fastener | 2660000000 | | | | | | | |
| PC, with screw fastener | 2660001000 | | | | | | | |
| PC, with transparent cover (PC) and quick-release fastener | 2661000000 | | | | | | | |
| ABS, with quick-release fastener | 3660000000 | | | | | | | |
| ABS, with screw fastener | 3660001000 | | | | | | | |
| ABS, with transparent cover (PC) and quick-release fastener | 3661000000 | | | | | | | |
| | | | | | | | | |
| Accessories (individual part or installation kit) | | | | | | | | |
| Mounting plate | 9512014000 | | | | | | | |
| Mounting rail TS 15 | 9820008000 | | | | | | | |
| Mounting rail TS 32 | – | | | | | | | |
| Mounting rail TS 35 | 9822002000 | | | | | | | |
| Earthing rail (secured on central bosses C/D) | 9810003000 | | | | | | | |
| External mounting brackets | 9802002000 | | | | | | | |
| External articulated hinges** | 9802025000 | | | | | | | |
| Internal articulated hinges, flexible, | | | | | | | | |
| for enclosure with quick-release fastener | 9801076000 | | | | | | | |
| Silicone seal for extended temperature range (by the metre) | on request | | | | | | | |
| Mounting bushes with 4 screws M3 x 8 | 9800025000 | | | | | | | |
| Maximum possible number of threads | | | | | | | | |
| ISO M | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 |
| Side A/B | 9 | 4 | 3 | 2 | 0 | 0 | 0 | 0 |
| Side C/D | 4 | 3 | 2 | 0 | 0 | 0 | 0 | 0 |
| ** Enclosure preparation required | | | | | | | | |

122 x 120 x 85 mm

CT-681 Polycarbonate enclosures
CT-682 ABS enclosures

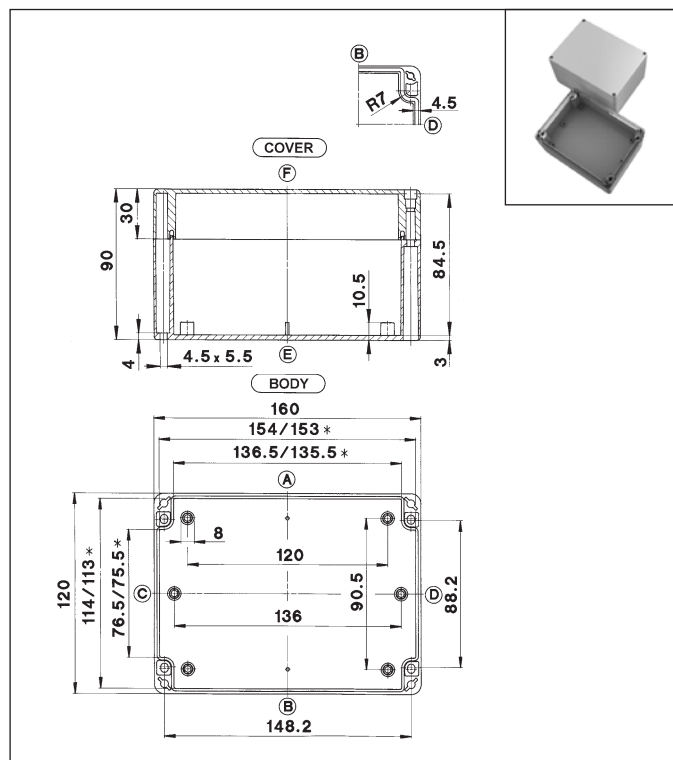


* Smaller dimension at mounting plate support

| Type | CT-681 PC | CT-682 ABS |
|---|--------------------|----------------------|
| Weight (g) | 295 (PC) | 269 (ABS) |
| External dimension (mm) | 122 x 120 x 85 | |
| Ordering data Enclosure (painted) with seal (PUR) | Part number | |
| PC, with quick-release fastener | 2680000000 | |
| PC, with screw fastener | 2680001000 | |
| PC, with transparent cover (PC) and quick-release fastener | 2681000000 | |
| ABS, with quick-release fastener | 3680000000 | |
| ABS, with screw fastener | 3680001000 | |
| ABS, with transparent cover (PC) and quick-release fastener | 3681000000 | |
| | | |
| Accessories (individual part or installation kit) | | |
| Mounting plate | 9512014000 | |
| Mounting rail TS 15 | - | |
| Mounting rail TS 32 | 9821001000 | |
| Mounting rail TS 35 | 9822002000 | |
| Earthing rail (secured on central bosses C/D) | 9810003000 | |
| External mounting brackets | 9802002000 | |
| External articulated hinges** | 9802025000 | |
| Internal articulated hinges, flexible, | | |
| for enclosure with quick-release fastener | 9801076000 | |
| Silicone seal for extended temperature range (by the metre) | on request | |
| Mounting bushes with 4 screws M3 x 8 | 9800025000 | |
| Maximum possible number of threads | | |
| ISO M | 12 | 16 20 25 32 40 50 63 |
| Side A/B | 15 | 6 6 3 20 1 1 0 |
| Side C/D | 10 | 3 3 2 1 0 0 0 |
| ** Enclosure preparation required | | |

160 x 120 x 90 mm

CT-721 Polycarbonate enclosures
CT-722 ABS enclosures



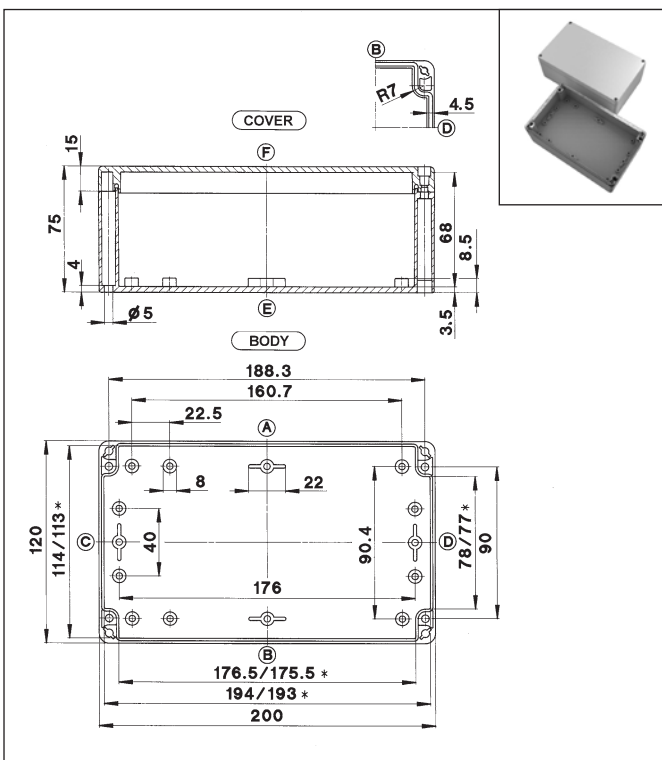
* Smaller dimension at mounting plate support

| Type | CT-721 PC | CT-722 ABS |
|---|--------------------|----------------------|
| Weight (g) | 360 (PC) | 310 (ABS) |
| External dimension (mm) | 160 x 120 x 90 | |
| Ordering data Enclosure (painted) with seal (PUR) | Part number | |
| PC, with quick-release fastener | 2720000000 | |
| PC, with screw fastener | 2720001000 | |
| PC, with transparent cover (PC) and quick-release fastener | 2721000000 | |
| ABS, with quick-release fastener | 3720000000 | |
| ABS, with screw fastener | 3720001000 | |
| ABS, with transparent cover (PC) and quick-release fastener | 3721000000 | |
| | | |
| | | |
| Accessories (individual part or installation kit) | | |
| Mounting plate | 9512036000 | |
| Mounting rail TS 15 | – | |
| Mounting rail TS 32 | 9821025000 | |
| Mounting rail TS 35 | 9822028000 | |
| Earthing rail (secured on central bosses C/D) | 9810040000 | |
| External mounting brackets | 9802002000 | |
| External articulated hinges** | 9802025000 | |
| Internal articulated hinges, flexible, | | |
| for enclosure with quick-release fastener | 9801079000 | |
| Silicone seal for extended temperature range (by the metre) | on request | |
| Mounting bushes with 4 screws M3 x 8 | 9800025000 | |
| Maximum possible number of threads | | |
| ISO M | 12 | 16 20 25 32 40 50 63 |
| Side A/B | 18 | 10 7 3 3 0 0 0 |
| Side C/D | 9 | 5 2 2 1 0 0 0 |
| ** Enclosure preparation required | | |

200 x 120 x 75 mm

CT-761 Polycarbonate enclosures
CT-762 ABS enclosures

CAD files available
at www.bernstein.eu



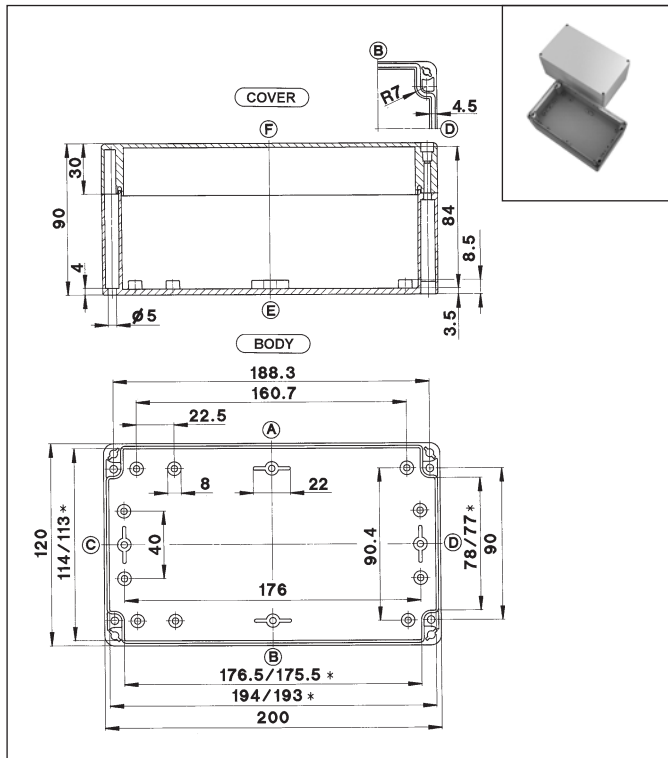
* Smaller dimension at mounting plate support

| Type | CT-761 PC | CT-762 ABS |
|---|--------------------|----------------------|
| Weight (g) | 400 (PC) | 373 (ABS) |
| External dimension (mm) | 200 x 120 x 75 | |
| Ordering data Enclosure (painted) with seal (PUR) | Part number | |
| PC, with quick-release fastener | 2760000000 | |
| PC, with screw fastener | 2760001000 | |
| PC, with transparent cover (PC) and quick-release fastener | 2761000000 | |
| ABS, with quick-release fastener | 3760000000 | |
| ABS, with screw fastener | 3760001000 | |
| ABS, with transparent cover (PC) and quick-release fastener | 3761000000 | |
| | | |
| Accessories (individual part or installation kit) | | |
| Mounting plate | 9512015000 | |
| Mounting rail TS 15 | - | |
| Mounting rail TS 32 | 9821004000 | |
| Mounting rail TS 35 | 9822006000 | |
| Earthing rail (secured on central bosses C/D) | 9810006000 | |
| External mounting brackets | 9802002000 | |
| External articulated hinges** | 9802025000 | |
| Internal articulated hinges, flexible, for enclosure with quick-release fastener | 9801076000 | |
| Silicone seal for extended temperature range (by the metre) | on request | |
| Mounting bushes with 4 screws M3 x 8 | 9800040000 | |
| Maximum possible number of threads | | |
| ISO M | 12 | 16 20 25 32 40 50 63 |
| Side A/B | 26 | 12 8 5 3 0 0 0 |
| Side C/D | 10 | 5 2 2 1 0 0 0 |
| ** Enclosure preparation required | | |

Polycarbonate and ABS Enclosures – Series CT

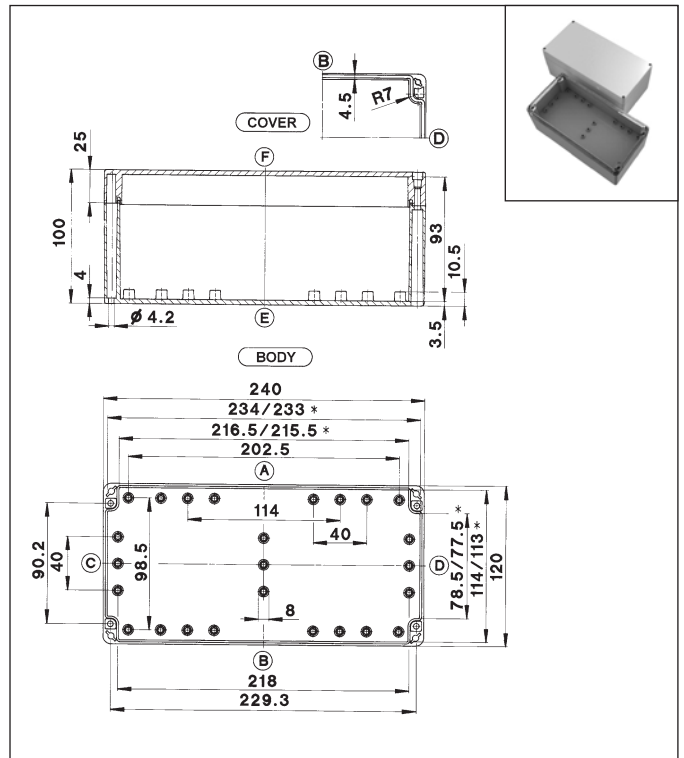
200 x 120 x 90 mm

CT-781 Polycarbonate enclosures
CT-782 ABS enclosures



240 x 120 x 100 mm

CT-801 Polycarbonate enclosures
CT-802 ABS enclosures



* Smaller dimension at mounting plate support

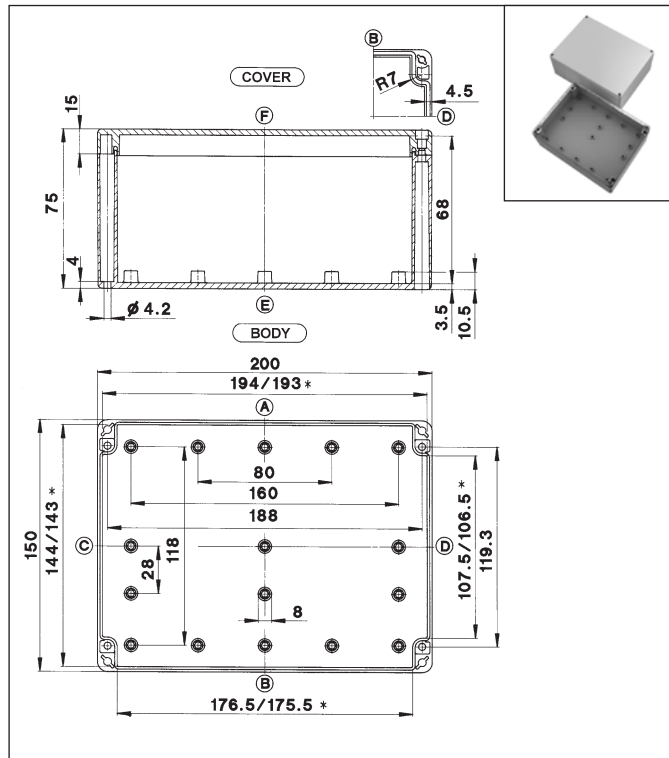
* Smaller dimension at mounting plate support

| Type | CT-781 PC CT-782 ABS | | | | | | | |
|---|----------------------|-----------|----|----|----|----|----|----|
| Weight (g) | 420 (PC) | 365 (ABS) | | | | | | |
| External dimension (mm) | 200 x 120 x 90 | | | | | | | |
| Ordering data Enclosure (painted) with seal (PUR) | Part number | | | | | | | |
| PC, with quick-release fastener | 2780000000 | | | | | | | |
| PC, with screw fastener | 2780001000 | | | | | | | |
| PC, with transparent cover (PC) and quick-release fastener | 2781000000 | | | | | | | |
| ABS, with quick-release fastener | 3780000000 | | | | | | | |
| ABS, with screw fastener | 3780001000 | | | | | | | |
| ABS, with transparent cover (PC) and quick-release fastener | 3781000000 | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Accessories (individual part or installation kit) | | | | | | | | |
| Mounting plate | 9512015000 | | | | | | | |
| Mounting rail TS 15 | – | | | | | | | |
| Mounting rail TS 32 | 9821004000 | | | | | | | |
| Mounting rail TS 35 | 9822006000 | | | | | | | |
| Earthing rail (secured on central bosses C/D) | 9810006000 | | | | | | | |
| External mounting brackets | 9802002000 | | | | | | | |
| External articulated hinges** | 9802025000 | | | | | | | |
| Internal articulated hinges, flexible, for enclosure with quick-release fastener | 9801079000 | | | | | | | |
| Silicone seal for extended temperature range (by the metre) | on request | | | | | | | |
| Mounting bushes with 4 screws M3 x 8 | 9800040000 | | | | | | | |
| Maximum possible number of threads | | | | | | | | |
| ISO M | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 |
| Side A/B | 26 | 12 | 8 | 5 | 3 | 0 | 0 | 0 |
| Side C/D | 10 | 5 | 2 | 2 | 1 | 0 | 0 | 0 |
| ** Enclosure preparation required | | | | | | | | |

| Type | CT-801 PC | CT-802 ABS |
|---|--------------------|----------------------|
| Weight (g) | 540 (PC) | 478 (ABS) |
| External dimension (mm) | 240 x 120 x 100 | |
| Ordering data Enclosure (painted) with seal (PUR) | Part number | |
| PC, with quick-release fastener | 2800000000 | |
| PC, with screw fastener | 2800001000 | |
| PC, with transparent cover (PC) and quick-release fastener | 2801000000 | |
| ABS, with quick-release fastener | 3800000000 | |
| ABS, with screw fastener | 3800001000 | |
| ABS, with transparent cover (PC) and quick-release fastener | 3801000000 | |
| | | |
| Accessories (individual part or installation kit) | | |
| Mounting plate | 9512016000 | |
| Mounting rail TS 15 | – | |
| Mounting rail TS 32 | 9821006000 | |
| Mounting rail TS 35 | 9822008000 | |
| Earthing rail (secured on central bosses C/D) | 9810009000 | |
| External mounting brackets | 9802002000 | |
| External articulated hinges** | 9802025000 | |
| Internal articulated hinges, flexible, for enclosure with quick-release fastener | 9801078000 | |
| Silicone seal for extended temperature range (by the metre) | on request | |
| Mounting bushes with 4 screws M3 x 8 | 9800025000 | |
| Maximum possible number of threads | | |
| ISO M | 12 | 16 20 25 32 40 50 63 |
| Side A/B | 34 | 17 12 6 5 3 3 2 |
| Side C/D | 10 | 6 3 2 1 1 0 0 |
| ** Enclosure preparation required | | |

200 x 150 x 75 mm

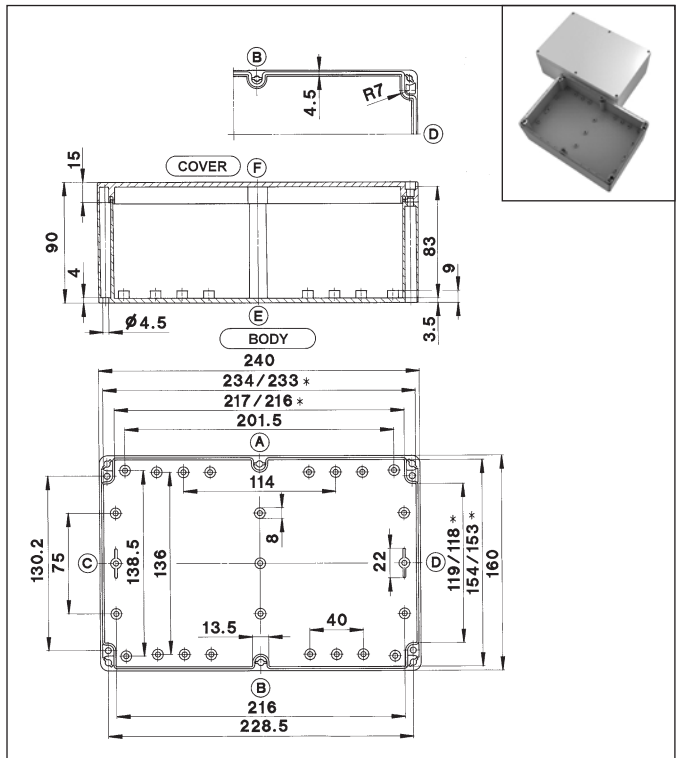
CT-821 Polycarbonate enclosures
CT-822 ABS enclosures



240 x 160 x 90 mm

CT-841 Polycarbonate enclosures
CT-842 ABS enclosures

CAD files available
at www.bernstein.eu



* Smaller dimension at mounting plate support

| Type | CT-821 PC | CT-822 ABS |
|---|--------------------|----------------------|
| Weight (g) | 475 (PC) | 425 (ABS) |
| External dimension (mm) | 200 x 150 x 75 | |
| Ordering data Enclosure (painted) with seal (PUR) | Part number | |
| PC, with quick-release fastener | 2820000000 | |
| PC, with screw fastener | 2820001000 | |
| PC, with transparent cover (PC) and quick-release fastener | 2821000000 | |
| ABS, with quick-release fastener | 3820000000 | |
| ABS, with screw fastener | 3820001000 | |
| ABS, with transparent cover (PC) and quick-release fastener | 3821000000 | |
| | | |
| Accessories (individual part or installation kit) | | |
| Mounting plate | 9512017000 | |
| Mounting rail TS 15 | - | |
| Mounting rail TS 32 | 9821017000 | |
| Mounting rail TS 35 | 9822020000 | |
| Earthing rail (secured on central bosses C/D) | 9810006000 | |
| External mounting brackets | 9802002000 | |
| External articulated hinges** | 9802025000 | |
| Internal articulated hinges, flexible, | | |
| for enclosure with quick-release fastener | 9801076000 | |
| Silicone seal for extended temperature range (by the metre) | on request | |
| Mounting bushes with 4 screws M3 x 8 | 9800025000 | |
| Maximum possible number of threads | | |
| ISO M | 12 | 16 20 25 32 40 50 63 |
| Side A/B | 22 | 12 9 5 3 0 0 0 |
| Side C/D | 12 | 6 3 2 2 0 0 0 |
| ** Enclosure preparation required | | |

** Enclosure preparation required

* Smaller dimension at mounting plate support

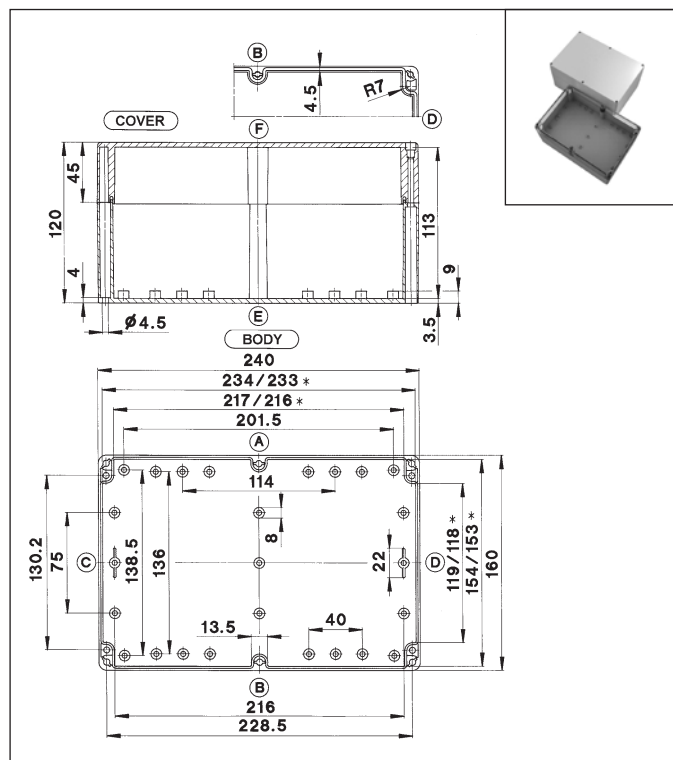
| Type | CT-841 PC | CT-842 ABS |
|---|--------------------|----------------------|
| Weight (g) | 650 (PC) | 528 (ABS) |
| External dimension (mm) | 240 x 160 x 90 | |
| Ordering data Enclosure (painted) with seal (PUR) | Part number | |
| PC, with quick-release fastener | 2840000000 | |
| PC, with screw fastener | 2840001000 | |
| PC, with transparent cover (PC) and quick-release fastener | 2841000000 | |
| ABS, with quick-release fastener | 3840000000 | |
| ABS, with screw fastener | 3840001000 | |
| ABS, with transparent cover (PC) and quick-release fastener | 3841000000 | |
| | | |
| | | |
| Accessories (individual part or installation kit) | | |
| Mounting plate | 9512018000 | |
| Mounting rail TS 15 | - | |
| Mounting rail TS 32 | 9821006000 | |
| Mounting rail TS 35 | 9822008000 | |
| Earthing rail (secured on central bosses C/D) | 9810009000 | |
| External mounting brackets | 9802002000 | |
| External articulated hinges** | 9802025000 | |
| Internal articulated hinges, flexible, | | |
| for enclosure with quick-release fastener | 9801076000 | |
| Silicone seal for extended temperature range (by the metre) | on request | |
| Mounting bushes with 4 screws M3 x 8 | 9800040000 | |
| Maximum possible number of threads | | |
| ISO M | 12 | 16 20 25 32 40 50 63 |
| Side A/B | 36 | 16 12 8 4 2 2 2 |
| Side C/D | 17 | 8 5 3 2 2 1 0 |
| ** Enclosure preparation required | | |

** Enclosure preparation required

Polycarbonate and ABS Enclosures – Series CT

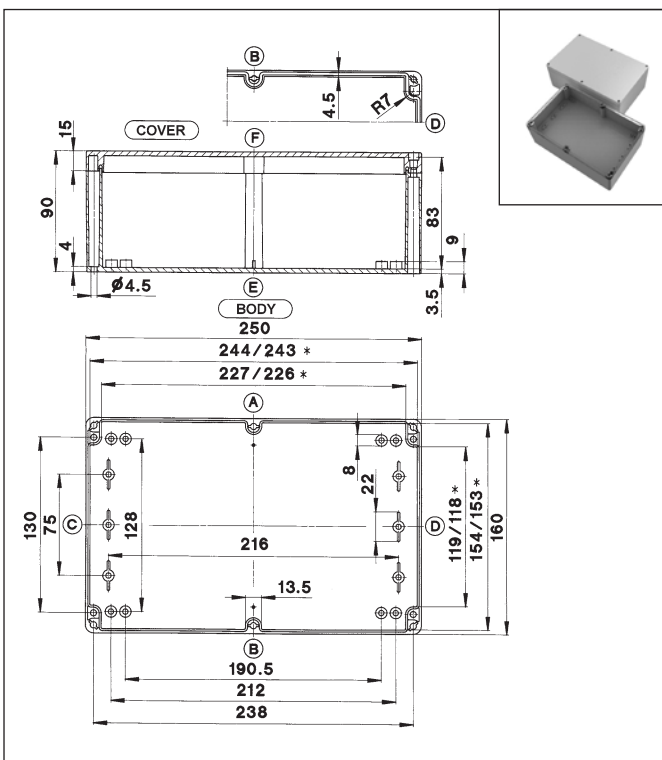
240 x 160 x 120 mm

CT-861 Polycarbonate enclosures
CT-862 ABS enclosures



250 x 160 x 90 mm

CT-901 Polycarbonate enclosures
CT-902 ABS enclosures



* Smaller dimension at mounting plate support

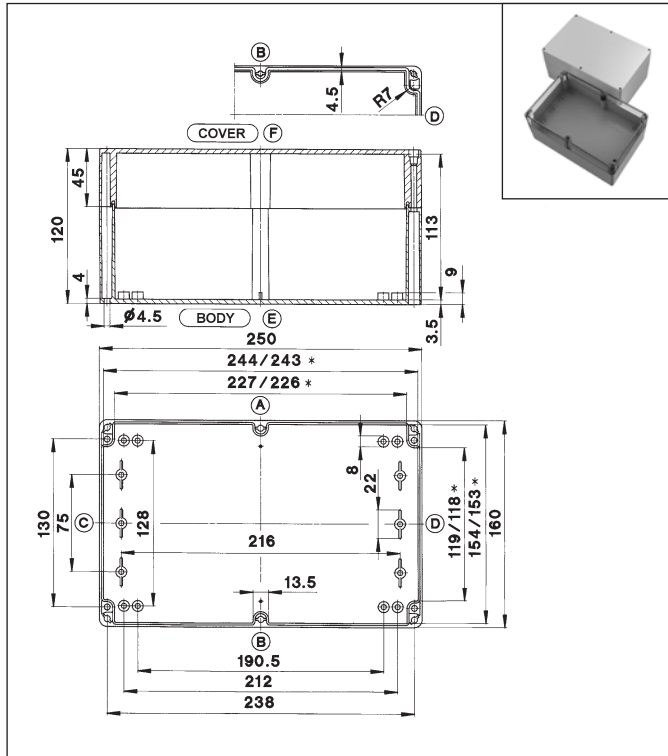
| Type | CT-861 PC | CT-862 ABS |
|---|--------------------|----------------------|
| Weight (g) | 785 (PC) | 636 (ABS) |
| External dimension (mm) | 240 x 160 x 120 | |
| Ordering data Enclosure (painted) with seal (PUR) | Part number | |
| PC, with quick-release fastener | 2860000000 | |
| PC, with screw fastener | 2860001000 | |
| PC, with transparent cover (PC) and quick-release fastener | 2861000000 | |
| ABS, with quick-release fastener | 3860000000 | |
| ABS, with screw fastener | 3860001000 | |
| ABS, with transparent cover (PC) and quick-release fastener | 3861000000 | |
| | | |
| Accessories (individual part or installation kit) | | |
| Mounting plate | 9512018000 | |
| Mounting rail TS 15 | – | |
| Mounting rail TS 32 | 9821006000 | |
| Mounting rail TS 35 | 9822008000 | |
| Earthing rail (secured on central bosses C/D) | 9810009000 | |
| External mounting brackets | 9802002000 | |
| External articulated hinges** | 9802025000 | |
| Internal articulated hinges, flexible, for enclosure with quick-release fastener | 9801080000 | |
| Silicone seal for extended temperature range (by the metre) | on request | |
| Mounting bushes with 4 screws M3 x 8 | 9800040000 | |
| Maximum possible number of threads | | |
| ISO M | 12 | 16 20 25 32 40 50 63 |
| Side A/B | 36 | 16 12 8 4 2 2 2 |
| Side C/D | 17 | 8 5 3 2 2 1 0 |
| ** Enclosure preparation required | | |

* Smaller dimension at mounting plate support

| Type | CT-901 PC | CT-902 ABS |
|---|--------------------|----------------------|
| Weight (g) | 680 (PC) | 550 (ABS) |
| External dimension (mm) | 250 x 160 x 90 | |
| Ordering data Enclosure (painted) with seal (PUR) | Part number | |
| PC, with quick-release fastener | 2900000000 | |
| PC, with screw fastener | 2900001000 | |
| PC, with transparent cover (PC) and quick-release fastener | 2901000000 | |
| ABS, with quick-release fastener | 3900000000 | |
| ABS, with screw fastener | 3900001000 | |
| ABS, with transparent cover (PC) and quick-release fastener | 3901000000 | |
| | | |
| Accessories (individual part or installation kit) | | |
| Mounting plate | 9512187000 | |
| Mounting rail TS 15 | - | |
| Mounting rail TS 32 | 9821006000 | |
| Mounting rail TS 35 | 9822008000 | |
| Earthing rail (secured on central bosses C/D) | 9810009000 | |
| External mounting brackets | 9802002000 | |
| External articulated hinges** | 9802025000 | |
| Internal articulated hinges, flexible, for enclosure with quick-release fastener | 9801076000 | |
| Silicone seal for extended temperature range (by the metre) | on request | |
| Mounting bushes with 4 screws M3 x 8 | 9800040000 | |
| Maximum possible number of threads | | |
| ISO M | 12 | 16 20 25 32 40 50 63 |
| Side A/B | 38 | 16 12 8 4 2 2 2 |
| Side C/D | 17 | 8 5 3 2 2 1 0 |
| ** Enclosure preparation required | | |

250 x 160 x 120 mm

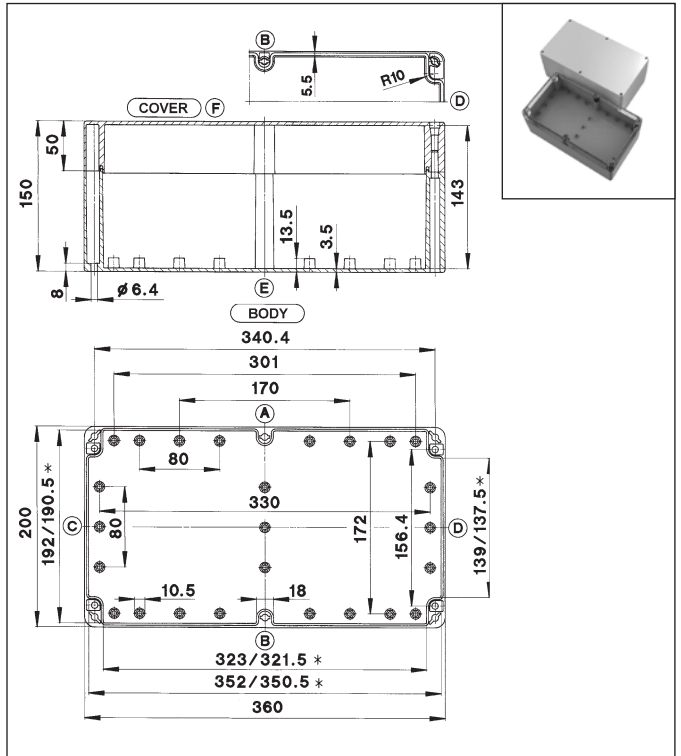
CT-911 Polycarbonate enclosures
CT-912 ABS enclosures



360 x 200 x 150 mm

CT-881 Polycarbonate enclosures
CT-882 ABS enclosures

CAD files available
at www.bernstein.eu



* Smaller dimension at mounting plate support

| Type | CT-911 PC | CT-912 ABS |
|---|--------------------|----------------------|
| Weight (g) | 830 (PC) | 660 (ABS) |
| External dimension (mm) | 250 x 160 x 120 | |
| Ordering data Enclosure (painted) with seal (PUR) | Part number | |
| PC, with quick-release fastener | 2910000000 | |
| PC, with screw fastener | 2910001000 | |
| PC, with transparent cover (PC) and quick-release fastener | 2911000000 | |
| ABS, with quick-release fastener | 3910000000 | |
| ABS, with screw fastener | 3910001000 | |
| ABS, with transparent cover (PC) and quick-release fastener | 3911000000 | |
| | | |
| Accessories (individual part or installation kit) | | |
| Mounting plate | 9512187000 | |
| Mounting rail TS 15 | - | |
| Mounting rail TS 32 | 9821006000 | |
| Mounting rail TS 35 | 9822008000 | |
| Earthing rail (secured on central bosses C/D) | 9810009000 | |
| External mounting brackets | 9802002000 | |
| External articulated hinges** | 9802025000 | |
| Internal articulated hinges, flexible, | | |
| for enclosure with quick-release fastener | 9801080000 | |
| Silicone seal for extended temperature range (by the metre) | on request | |
| Mounting bushes with 4 screws M3 x 8 | 9800040000 | |
| Maximum possible number of threads | | |
| ISO M | 12 | 16 20 25 32 40 50 63 |
| Side A/B | 38 | 16 12 8 4 2 2 2 |
| Side C/D | 17 | 8 5 3 2 2 1 0 |
| ** Enclosure preparation required | | |

** Enclosure preparation required

* Smaller dimension at mounting plate support

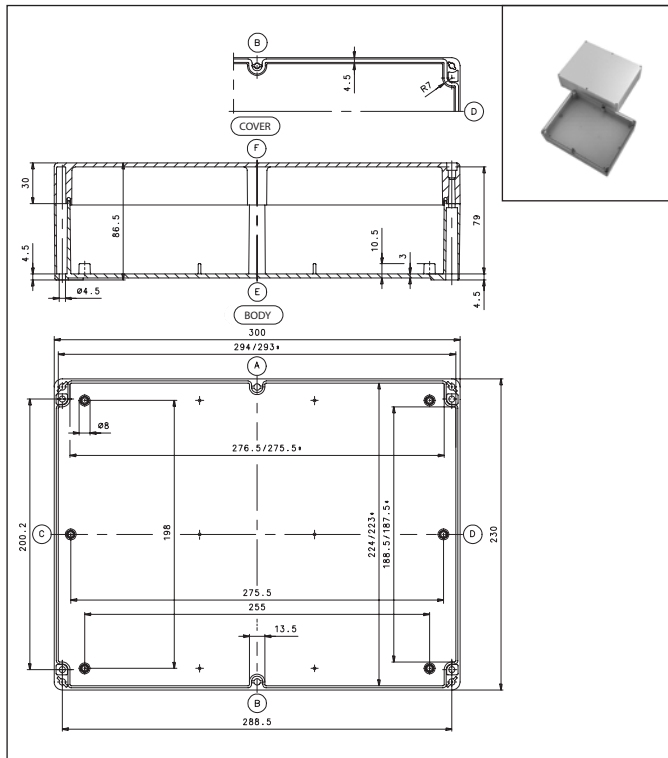
| Type | CT-881 PC | CT-882 ABS |
|---|---------------------|----------------------|
| Weight (g) | 1550 (PC) | 1375 (ABS) |
| External dimension (mm) | 360 x 200 x 150 | |
| Ordering data Enclosure (painted) with seal (PUR) | Part number | |
| PC, with quick-release fastener | 2880000000 | |
| PC, with screw fastener | 2880001000 | |
| PC, with transparent cover (PC) and quick-release fastener | 2881000000 | |
| ABS, with quick-release fastener | 3880000000 | |
| ABS, with screw fastener | 3880001000 | |
| ABS, with transparent cover (PC) and quick-release fastener | 3881000000 | |
| | | |
| Accessories (individual part or installation kit) | | |
| Mounting plate | 9512020000 | |
| Mounting rail TS 15 | – | |
| Mounting rail TS 32 | 9821013000 | |
| Mounting rail TS 35 | 9822016000 | |
| Earthing rail (secured on central bosses C/D) | 9810034000 | |
| External mounting brackets | – | |
| External articulated hinges** | 9802026000 | |
| Internal articulated hinges, flexible, | | |
| for enclosure with quick-release fastener | – | |
| Silicone seal for extended temperature range (by the metre) | on request | |
| Mounting bushes with 4 screws M3 x 8 | 9800026000 (M4 x 8) | |
| Maximum possible number of threads | | |
| ISO M | 12 | 16 20 25 32 40 50 63 |
| Side A/B | 70 | 32 24 16 10 6 4 4 |
| Side C/D | 26 | 11 8 5 3 2 2 1 |
| ** Enclosure preparation required | | |

** Enclosure preparation required

Polycarbonate and ABS Enclosures – Series CT

300 x 230 x 86 mm

CT-871 Polycarbonate enclosures
CT-872 ABS enclosures

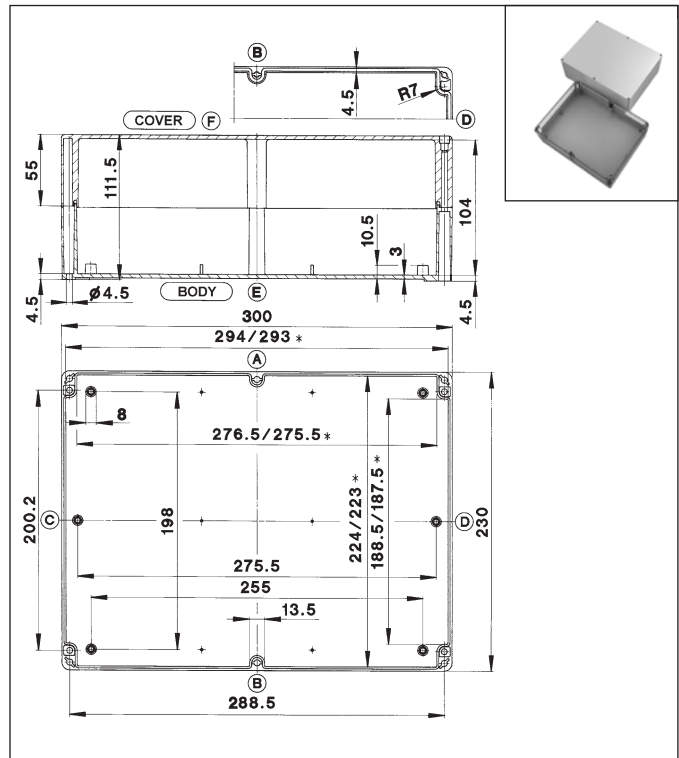


* Smaller dimension at mounting plate support

| Type | CT-871 PC | CT-872 ABS |
|---|--------------------|----------------------|
| Weight (g) | 915 (PC) | 850 (ABS) |
| External dimension (mm) | 300 x 230 x 86 | |
| Ordering data Enclosure (painted) with seal (PUR) | Part number | |
| PC, with quick-release fastener | 2870000000 | |
| PC, with screw fastener | 2870001000 | |
| PC, with transparent cover (PC) and quick-release fastener | 2871000000 | |
| ABS, with quick-release fastener | 3870000000 | |
| ABS, with screw fastener | 3870001000 | |
| ABS, with transparent cover (PC) and quick-release fastener | 3871000000 | |
| | | |
| | | |
| Accessories (individual part or installation kit) | | |
| Mounting plate | 9512019000 | |
| Mounting rail TS 15 | – | |
| Mounting rail TS 32 | 9821010000 | |
| Mounting rail TS 35 | 9822013000 | |
| Earthing rail (secured on central bosses C/D) | 9810012000 | |
| External mounting brackets | 9802002000 | |
| External articulated hinges** | 9802025000 | |
| Internal articulated hinges, flexible, for enclosure with quick-release fastener | 9801079000 | |
| Silicone seal for extended temperature range (by the metre) | – | |
| Mounting bushes with 4 screws M3 x 8 | 9800025000 | |
| Maximum possible number of threads | | |
| ISO M | 12 | 16 20 25 32 40 50 63 |
| Side A/B | 34 | 14 10 6 4 0 0 0 |
| Side C/D | 21 | 13 5 4 2 0 0 0 |
| ** Enclosure preparation required | | |

300 x 230 x 110 mm

CT-891 Polycarbonate enclosures
CT-892 ABS enclosures



* Smaller dimension at mounting plate support

| Type | CT-891 PC | CT-892 ABS |
|---|--------------------|----------------------|
| Weight (g) | 1155 (PC) | 1000 (ABS) |
| External dimension (mm) | 300 x 230 x 110 | |
| Ordering data Enclosure (painted) with seal (PUR) | Part number | |
| PC, with quick-release fastener | 2890000000 | |
| PC, with screw fastener | 2890001000 | |
| PC, with transparent cover (PC) and quick-release fastener | 2891000000 | |
| ABS, with quick-release fastener | 3890000000 | |
| ABS, with screw fastener | 3890001000 | |
| ABS, with transparent cover (PC) and quick-release fastener | 3891000000 | |
| | | |
| | | |
| Accessories (individual part or installation kit) | | |
| Mounting plate | 9512019000 | |
| Mounting rail TS 15 | – | |
| Mounting rail TS 32 | 9821010000 | |
| Mounting rail TS 35 | 9822013000 | |
| Earthing rail (secured on central bosses C/D) | 9810012000 | |
| External mounting brackets | 9802002000 | |
| External articulated hinges** | 9802025000 | |
| Internal articulated hinges, flexible, | | |
| for enclosure with quick-release fastener | 9801082000 | |
| Silicone seal for extended temperature range (by the metre) | – | |
| Mounting bushes with 4 screws M3 x 8 | 9800025000 | |
| Maximum possible number of threads | | |
| ISO M | 12 | 16 20 25 32 40 50 63 |
| Side A/B | 34 | 14 10 6 4 0 0 0 |
| Side C/D | 21 | 13 5 4 2 0 0 0 |
| ** Enclosure preparation required | | |

Notes

Polyester Enclosures – Series CP

BERNSTEIN Series CP and CPS polyester enclosures are produced from highgrade glass fibre-reinforced polyester. Thanks to their reduced surface resistance ($R_o < 109 \text{ Ohm}$), the black polyester enclosures meet the requirements for Ex applications. Polyester enclosures are therefore particularly suitable for accepting and encapsulating electrical and electronic components as well as control components in harsh environments or potentially explosive atmospheres (see Page 14). All enclosures achieve protection class IP66 in accordance with DIN EN 60529 (optionally IP67).

Corresponding to their size, BERNSTEIN polyester enclosures feature M4 or M6 mounting elements in the enclosure body. These mounting bushes are embedded in a flange on the narrow sides of the base and accept mounting plates, mounting rails, pc boards etc.

The captive stainless steel cover screws are retained by a self-latching element integrated in the cover. The threaded bushes for mounting the cover are also made from stainless steel. The protection class (on the standard enclosure) is ensured by a factory-fitted seal. The polyester enclosures are available as standard in grey (RAL 7000, squirrel grey) or black (RAL 9005, jet black) material.

Technical data

Material

Glass fibre-reinforced polyester in grey or black

Seal

Foamed PUR seal
Neoprene (CR) round cord (siliconized), EPDM round cord

Cover screws

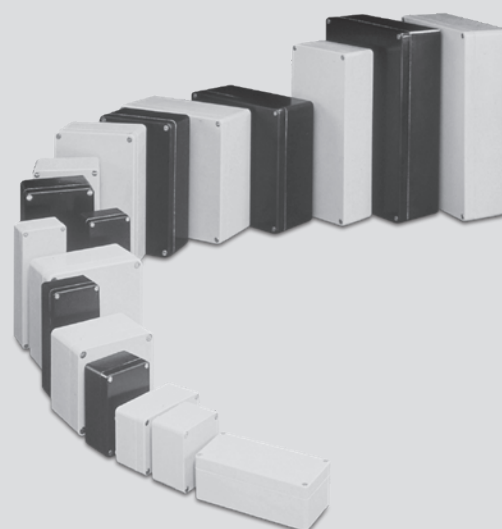
Stainless steel, captive, cross recessed head
Optionally:
Socket head cap screws, stainless steel, captive
Sealed cover screws, stainless steel, slot head

Colour

RAL 7000 (squirrel grey)
bzw. RAL 9005 (jet black)
Other colours (coating or dyeing) available on request for large quantities.

Temperature range of CP enclosures

–60°C to +165°C



Temperature range of seals

Standard:
–40°C to +100°C (PUR seal)
Optionally:
–30°C to +80°C (Neoprene seal)
–60°C to +130°C (silicone seal) or
–35°C to +100°C (EPDM seal)

Protection class

IP66
IP67 with PUR seal

Approbations

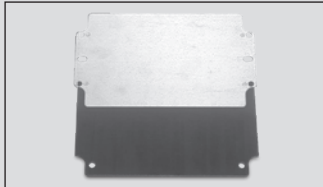
Germanischer Lloyd
c UL us (Label on demand)
c CSA us (Label on demand)
ATEX, IECEx



| | | | | | Polyester enclosure (grey) | | Polyester enclosure (black) | |
|---------------|---|-----|---|------|----------------------------|--------|-----------------------------|---------|
| Dimensions/mm | | | | | Article number | Type | Article number | Type |
| L | x | W | x | H | | | | |
| 80 | x | 75 | x | 55 | 4140000000 | CP-140 | 5140000000 | CPS-140 |
| 80 | x | 75 | x | 75 | 4140000050 | CP-145 | 5140000050 | CPS-145 |
| 110 | x | 75 | x | 55 | 4150000000 | CP-150 | 5150000000 | CPS-150 |
| 110 | x | 75 | x | 75 | 4150000050 | CP-155 | 5150000050 | CPS-155 |
| 160 | x | 75 | x | 55 | 4170000000 | CP-170 | 5170000000 | CPS-170 |
| 160 | x | 75 | x | 75 | 4170000050 | CP-175 | 5170000050 | CPS-175 |
| 190 | x | 75 | x | 55 | 4190000000 | CP-190 | 5190000000 | CPS-190 |
| 190 | x | 75 | x | 75 | 4190000050 | CP-195 | 5190000050 | CPS-195 |
| 122 | x | 120 | x | 90,5 | 4220000000 | CP-220 | 5220000000 | CPS-220 |
| 220 | x | 120 | x | 90,5 | 4240000000 | CP-240 | 5240000000 | CPS-240 |
| 160 | x | 160 | x | 91 | 4280000000 | CP-280 | 5280000000 | CPS-280 |
| 260 | x | 160 | x | 91 | 4300000000 | CP-300 | 5300000000 | CPS-300 |
| 360 | x | 160 | x | 91 | 4320000000 | CP-320 | 5320000000 | CPS-320 |
| 560 | x | 160 | x | 91 | 4330000000 | CP-330 | 5330000000 | CPS-330 |
| 255 | x | 250 | x | 120 | 4370000000 | CP-370 | 5370000000 | CPS-370 |
| 400 | x | 250 | x | 120 | 4400000000 | CP-400 | 5400000000 | CPS-400 |
| 400 | x | 405 | x | 120 | 4450000000 | CP-450 | 5450000000 | CPS-450 |
| 400 | x | 405 | x | 165 | 4460000000 | CP-460 | 5460000000 | CPS-460 |

Assembling of components

This is just a selection of possible assembly components that BERNSTEIN offers. Contact us, we can incorporate components from all leading manufacturers to satisfy your individual demand. You find further information about "System solutions" on page 12.



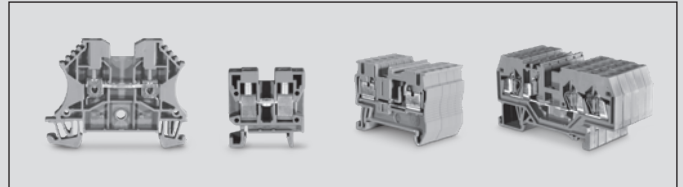
Mounting plates

made from galvanised steel plate or laminated paper (thickness: CP-140 to CP 195 laminated paper 1.5 mm; CP-220 to CP-320 and CP-370 to CP-460 steel plate 1.5 mm; CP-330 steel plate 2.5 mm) for versatile mounting of built-in components.



Mounting rails

conforming to Standards TS 15 or TS 32 and TS 35 made from steel; surface treated for accepting terminal blocks.



Terminal blocks

of all renowned manufacturers are used.



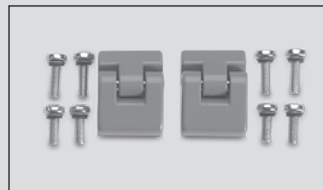
Earthing bars

made from galvanised steel for combining and connecting PE conductors.



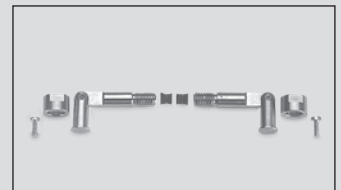
External mounting brackets

made from metal for mounting enclosures without opening the covers. The brackets are always fitted across the shorter sides of the enclosure.



External articulated hinges

for hinged mounting of enclosure cover. Opening range of cover approx. 155°. Cast aluminium (painted in RAL 7001 – specific colour according to enclosure specification possible). Machining is required for mounting on enclosures.



Internal articulated hinges

for hinged mounting of enclosure cover. Opening range of cover approx. 95°. Stainless steel. Machining is required for mounting on enclosures.



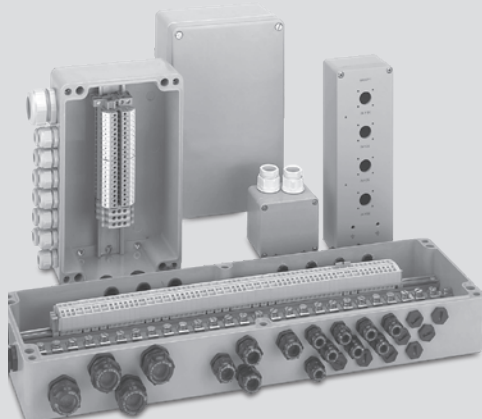
Silicon, EPDM or HF seal

with increased temperature resistance (see indications left side) or to protect sensitive electronic equipment against high-frequency radiation (HF seal). If a HF seal is used, an additional coating of the inside of the enclosure is required.



Cable glands

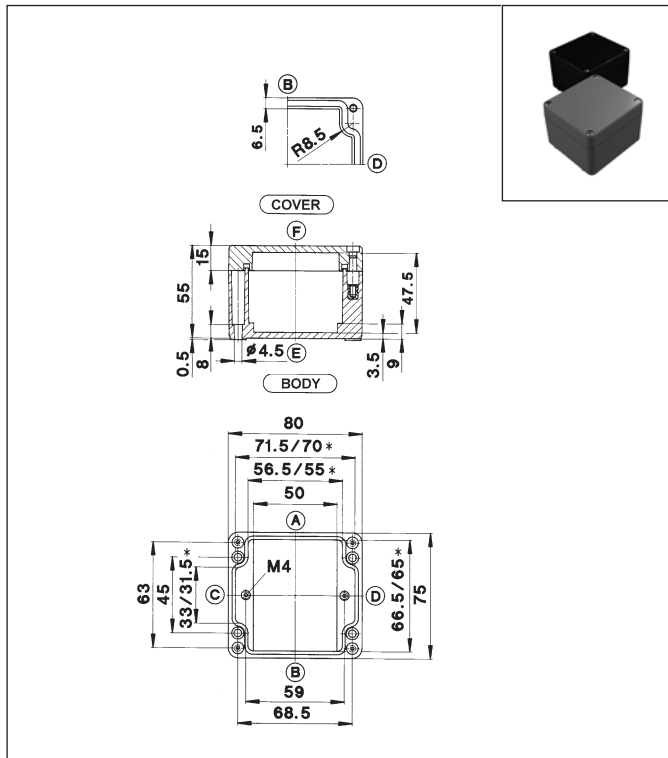
plastic cable glands (polyamide PAGV-2, RAL 7001) or brass cable glands. Sealing element CR/NBR. Temperature range: -20°C to +100°C (see also page 71). Other cable glands on demand.



Polyester Enclosures – Series CP

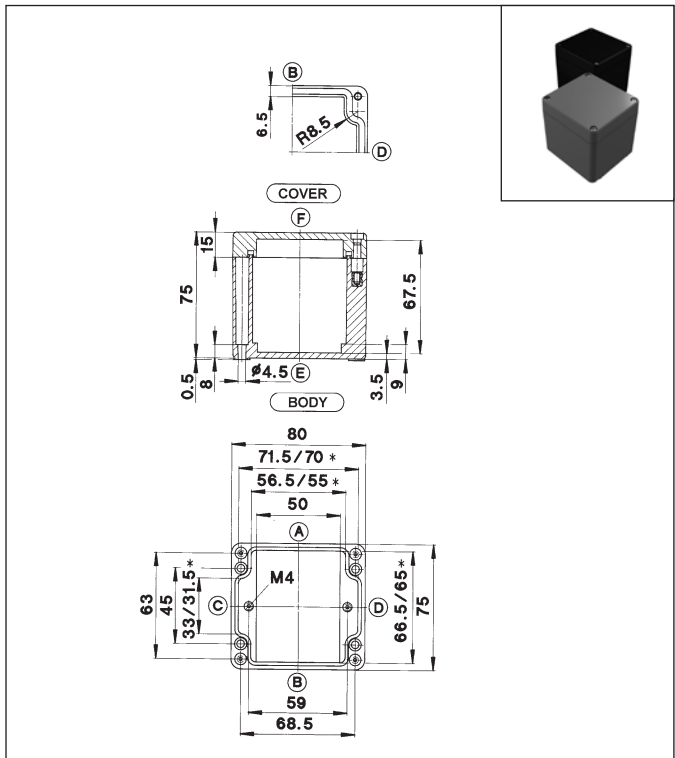
80 x 75 x 55 mm

CP-140 RAL 7000 (squirrel grey)
CPS-140 RAL 9005 (jet black)



80 x 75 x 75 mm

CP-145 RAL 7000 (squirrel grey)
CPS-145 RAL 9005 (jet black)



* Smaller dimension at mounting plate support

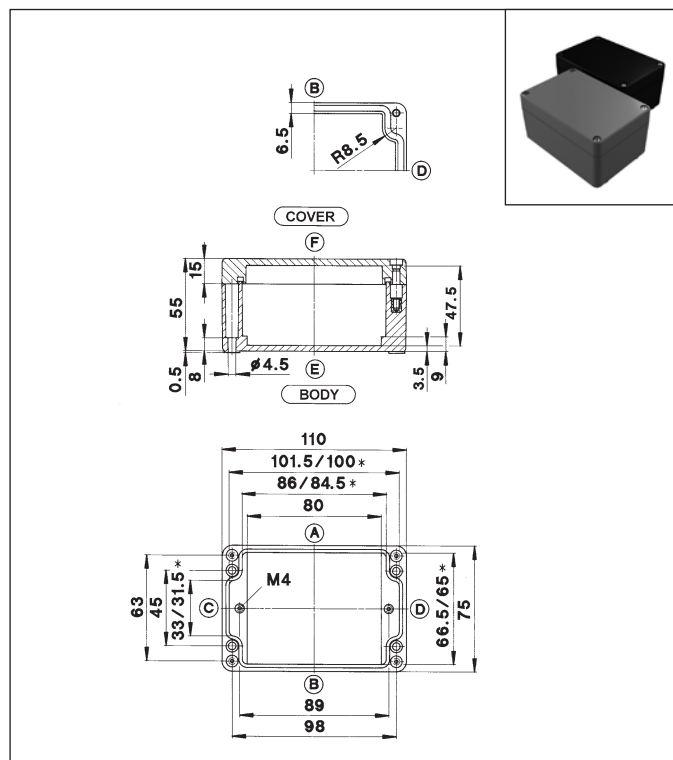
| Type | CP-140 | CPS-140 | | | | | | |
|---|--------------------|---------|----|----|----|----|----|----|
| Weight (g) | 230 | 230 | | | | | | |
| External dimension (mm) | 80 x 75 x 55 | | | | | | | |
| Ordering data Enclosure with seal (PUR) | Part number | | | | | | | |
| RAL 7000 (squirrel grey), with cover screws | 4140000000 | | | | | | | |
| RAL 9005 (jet black), with cover screws | 5140000000 | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Accessories (individual part or installation kit) | | | | | | | | |
| Mounting plate | 9823000000 | | | | | | | |
| Mounting rail TS 15 | 9820003000 | | | | | | | |
| Mounting rail TS 32 | – | | | | | | | |
| Mounting rail TS 35 | – | | | | | | | |
| Earthing rail | – | | | | | | | |
| External mounting brackets | 9824000000 | | | | | | | |
| External articulated hinges for CP** enclosures | – | | | | | | | |
| External articulated hinges for CPS** enclosures | – | | | | | | | |
| Internal articulated hinges with cover guide** | – | | | | | | | |
| Silicone seal for extended temperature range (by the metre) | on request | | | | | | | |
| Maximum possible number of threads | | | | | | | | |
| ISO M | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 |
| Side A/B | 5 | 2 | 2 | 1 | 0 | 0 | 0 | 0 |
| Side C/D | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| ** Enclosure preparation required | | | | | | | | |

* Smaller dimension at mounting plate support

| Type | CP-145 | CPS-145 | | | | | | |
|---|--------------------|---------|----|----|----|----|----|----|
| Weight (g) | 300 | 300 | | | | | | |
| External dimension (mm) | 80 x 75 x 75 | | | | | | | |
| Ordering data Enclosure with seal (PUR) | Part number | | | | | | | |
| RAL 7000 (squirrel grey), with cover screws | 4140000050 | | | | | | | |
| RAL 9005 (jet black), with cover screws | 5140000050 | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Accessories (individual part or installation kit) | | | | | | | | |
| Mounting plate | 9823000000 | | | | | | | |
| Mounting rail TS 15 | 9820003000 | | | | | | | |
| Mounting rail TS 32 | – | | | | | | | |
| Mounting rail TS 35 | – | | | | | | | |
| Earthing rail | – | | | | | | | |
| External mounting brackets | 9824000000 | | | | | | | |
| External articulated hinges for CP** enclosures | – | | | | | | | |
| External articulated hinges for CPS** enclosures | – | | | | | | | |
| Internal articulated hinges with cover guide** | – | | | | | | | |
| Silicone seal for extended temperature range (by the metre) | on request | | | | | | | |
| Maximum possible number of threads | | | | | | | | |
| ISO M | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 |
| Side A/B | 8 | 4 | 2 | 1 | 1 | 0 | 0 | 0 |
| Side C/D | 4 | 1 | 1 | 1 | 1 | 0 | 0 | 0 |
| ** Enclosure preparation required | | | | | | | | |

110 x 75 x 55 mm

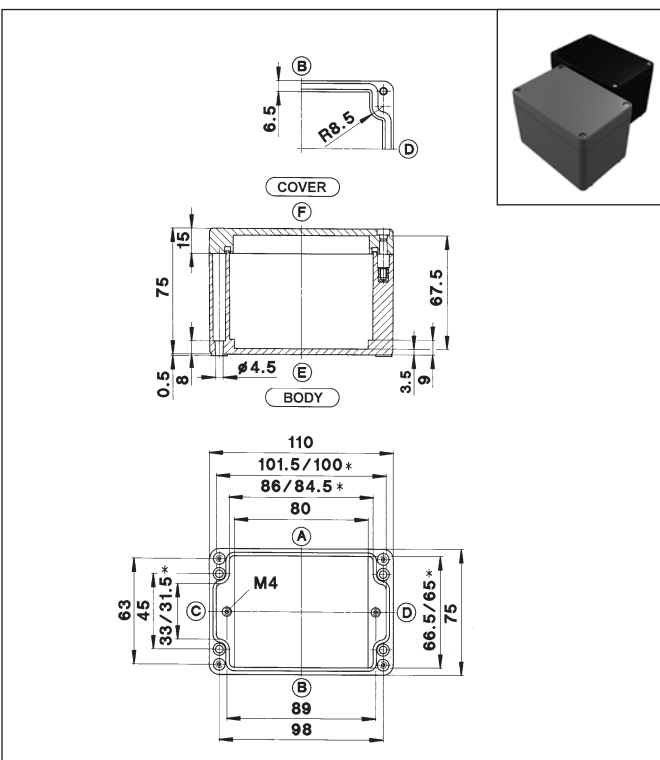
CP-150 RAL 7000 (squirrel grey)
CPS-150 RAL 9005 (jet black)



110 x 75 x 75 mm

CP-155 RAL 7000 (squirrel grey)
CPS-155 RAL 9005 (jet black)

CAD files available
at www.bernstein.eu



* Smaller dimension at mounting plate support

| Type | CP-150 | CPS-150 | | | | | | |
|---|--------------------|---------|----|----|----|----|----|----|
| Weight (g) | 295 | 295 | | | | | | |
| External dimension (mm) | 110 x 75 x 55 | | | | | | | |
| Ordering data Enclosure with seal (PUR) | Part number | | | | | | | |
| RAL 7000 (squirrel grey), with cover screws | 4150000000 | | | | | | | |
| RAL 9005 (jet black), with cover screws | 5150000000 | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Accessories (individual part or installation kit) | | | | | | | | |
| Mounting plate | 9823001000 | | | | | | | |
| Mounting rail TS 15 | 9820006000 | | | | | | | |
| Mounting rail TS 32 | – | | | | | | | |
| Mounting rail TS 35 | – | | | | | | | |
| Earthing rail | – | | | | | | | |
| External mounting brackets | 9824000000 | | | | | | | |
| External articulated hinges for CP** enclosures | – | | | | | | | |
| External articulated hinges for CPS** enclosures | – | | | | | | | |
| Internal articulated hinges with cover guide** | – | | | | | | | |
| Silicone seal for extended temperature range (by the metre) | on request | | | | | | | |
| Maximum possible number of threads | | | | | | | | |
| ISO M | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 |
| Side A/B | 8 | 3 | 2 | 2 | 0 | 0 | 0 | 0 |
| Side C/D | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| ** Enclosure preparation required | | | | | | | | |

* Smaller dimension at mounting plate support

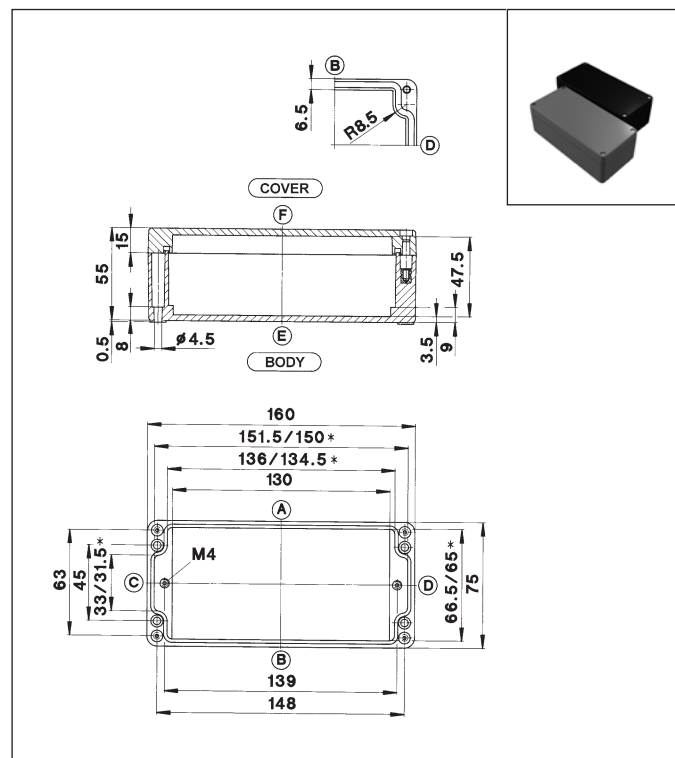
| Type | CP-155 | CPS-155 | | | | | | |
|---|--------------------|---------|----|----|----|----|----|----|
| Weight (g) | 360 | 360 | | | | | | |
| External dimension (mm) | 110 x 75 x 75 | | | | | | | |
| Ordering data Enclosure with seal (PUR) | Part number | | | | | | | |
| RAL 7000 (squirrel grey), with cover screws | 4150000050 | | | | | | | |
| RAL 9005 (jet black), with cover screws | 5150000050 | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Accessories (individual part or installation kit) | | | | | | | | |
| Mounting plate | 9823001000 | | | | | | | |
| Mounting rail TS 15 | 9820006000 | | | | | | | |
| Mounting rail TS 32 | - | | | | | | | |
| Mounting rail TS 35 | - | | | | | | | |
| Earthing rail | - | | | | | | | |
| External mounting brackets | 9824000000 | | | | | | | |
| External articulated hinges for CP** enclosures | - | | | | | | | |
| External articulated hinges for CPS** enclosures | - | | | | | | | |
| Internal articulated hinges with cover guide** | - | | | | | | | |
| Silicone seal for extended temperature range (by the metre) | on request | | | | | | | |
| Maximum possible number of threads | | | | | | | | |
| ISO M | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 |
| Side A/B | 12 | 6 | 3 | 2 | 2 | 0 | 0 | 0 |
| Side C/D | 4 | 1 | 1 | 1 | 1 | 0 | 0 | 0 |
| ** Enclosure preparation required | | | | | | | | |

Polyester Enclosures – Series CP

160 x 75 x 55 mm

CP-170 RAL 7000 (squirrel grey)

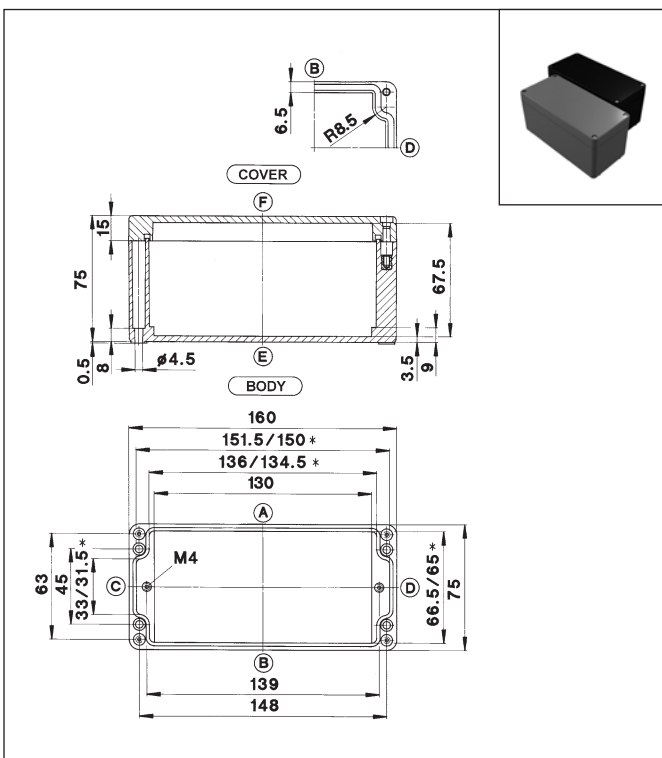
CPS-170 RAL 9005 (jet black)



160 x 75 x 75 mm

CP-175 RAL 7000 (squirrel grey)

CPS-175 RAL 9005 (jet black)



* Smaller dimension at mounting plate support

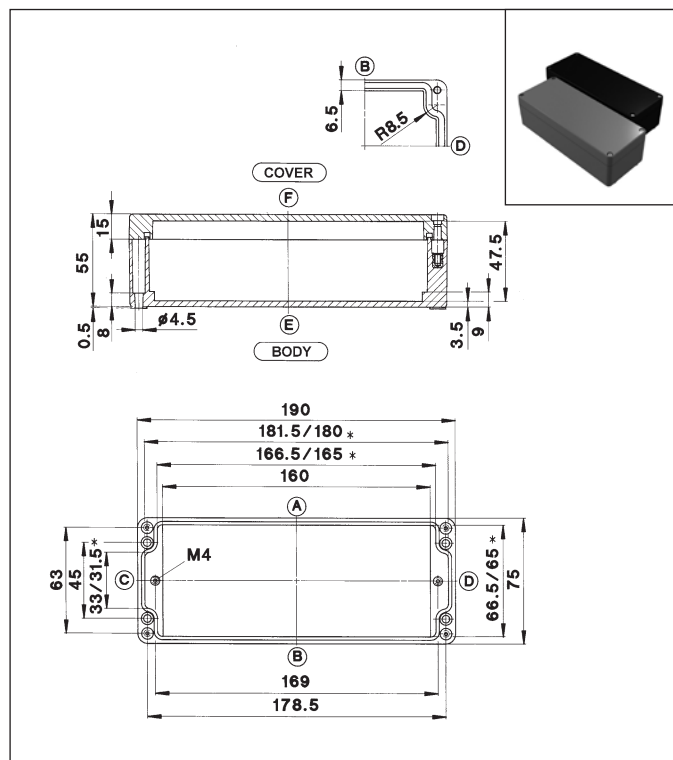
| Type | CP-170 | CPS-170 | | | | | | |
|---|--------------------|---------|----|----|----|----|----|----|
| Weight (g) | 405 | 405 | | | | | | |
| External dimension (mm) | 160 x 75 x 55 | | | | | | | |
| Ordering data Enclosure with seal (PUR) | Part number | | | | | | | |
| RAL 7000 (squirrel grey), with cover screws | 4170000000 | | | | | | | |
| RAL 9005 (jet black), with cover screws | 5170000000 | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Accessories (individual part or installation kit) | | | | | | | | |
| Mounting plate | 9823002000 | | | | | | | |
| Mounting rail TS 15 | 9820012000 | | | | | | | |
| Mounting rail TS 32 | – | | | | | | | |
| Mounting rail TS 35 | – | | | | | | | |
| Earthing rail | – | | | | | | | |
| External mounting brackets | 9824000000 | | | | | | | |
| External articulated hinges for CP** enclosures | – | | | | | | | |
| External articulated hinges for CPS** enclosures | – | | | | | | | |
| Internal articulated hinges with cover guide** | – | | | | | | | |
| Silicone seal for extended temperature range (by the metre) | on request | | | | | | | |
| Maximum possible number of threads | | | | | | | | |
| ISO M | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 |
| Side A/B | 12 | 5 | 4 | 3 | 0 | 0 | 0 | 0 |
| Side C/D | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| ** Enclosure preparation required | | | | | | | | |

* Smaller dimension at mounting plate support

| Type | CP-175 | CPS-175 | | | | | | |
|---|--------------------|---------|----|----|----|----|----|----|
| Weight (g) | 460 | 460 | | | | | | |
| External dimension (mm) | 160 x 75 x 75 | | | | | | | |
| Ordering data Enclosure with seal (PUR) | Part number | | | | | | | |
| RAL 7000 (squirrel grey), with cover screws | 4170000050 | | | | | | | |
| RAL 9005 (jet black), with cover screws | 5170000050 | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Accessories (individual part or installation kit) | | | | | | | | |
| Mounting plate | 9823002000 | | | | | | | |
| Mounting rail TS 15 | 9820012000 | | | | | | | |
| Mounting rail TS 32 | – | | | | | | | |
| Mounting rail TS 35 | – | | | | | | | |
| Earthing rail | – | | | | | | | |
| External mounting brackets | 9824000000 | | | | | | | |
| External articulated hinges for CP** enclosures | – | | | | | | | |
| External articulated hinges for CPS** enclosures | – | | | | | | | |
| Internal articulated hinges with cover guide** | – | | | | | | | |
| Silicone seal for extended temperature range (by the metre) | on request | | | | | | | |
| Maximum possible number of threads | | | | | | | | |
| ISO M | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 |
| Side A/B | 18 | 10 | 6 | 4 | 3 | 0 | 0 | 0 |
| Side C/D | 4 | 1 | 1 | 1 | 1 | 0 | 0 | 0 |
| ** Enclosure preparation required | | | | | | | | |

190 x 75 x 55 mm

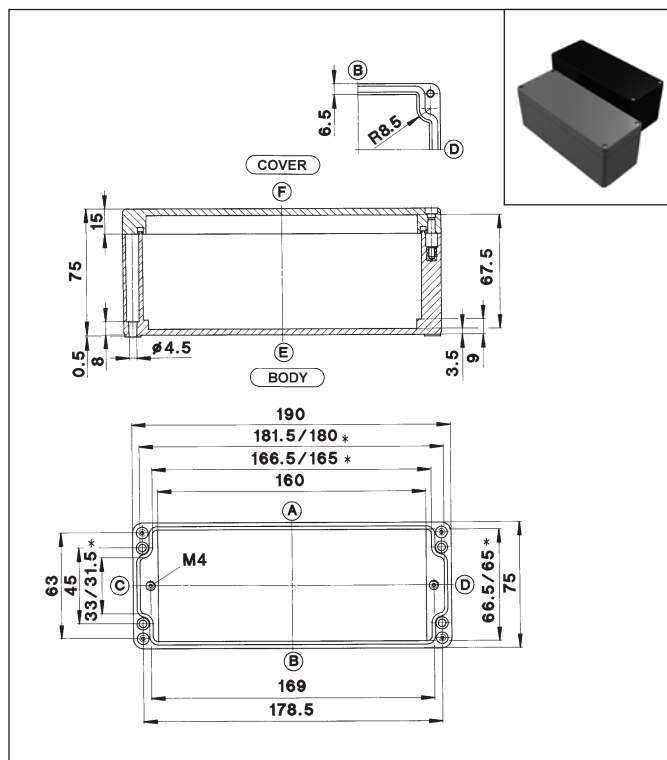
CP-190 RAL 7000 (squirrel grey)
CPS-190 RAL 9005 (jet black)



190 x 75 x 75 mm

CP-195 RAL 7000 (squirrel grey)
CPS-195 RAL 9005 (jet black)

CAD files available
at www.bernstein.eu



* Smaller dimension at mounting plate support

| Type | CP-190 | CPS-190 | | | | | | |
|---|--------------------|---------|----|----|----|----|----|----|
| Weight (g) | 450 | 450 | | | | | | |
| External dimension (mm) | 190 x 75 x 55 | | | | | | | |
| Ordering data Enclosure with seal (PUR) | Part number | | | | | | | |
| RAL 7000 (squirrel grey), with cover screws | 4190000000 | | | | | | | |
| RAL 9005 (jet black), with cover screws | 5190000000 | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Accessories (individual part or installation kit) | | | | | | | | |
| Mounting plate | 9823003000 | | | | | | | |
| Mounting rail TS 15 | 9820015000 | | | | | | | |
| Mounting rail TS 32 | – | | | | | | | |
| Mounting rail TS 35 | – | | | | | | | |
| Earthing rail | – | | | | | | | |
| External mounting brackets | 9824000000 | | | | | | | |
| External articulated hinges for CP** enclosures | – | | | | | | | |
| External articulated hinges for CPS** enclosures | – | | | | | | | |
| Internal articulated hinges with cover guide** | – | | | | | | | |
| Silicone seal for extended temperature range (by the metre) | on request | | | | | | | |
| Maximum possible number of threads | | | | | | | | |
| ISO M | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 |
| Side A/B | 16 | 7 | 5 | 4 | 0 | 0 | 0 | 0 |
| Side C/D | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| ** Enclosure preparation required | | | | | | | | |

* Smaller dimension at mounting plate support

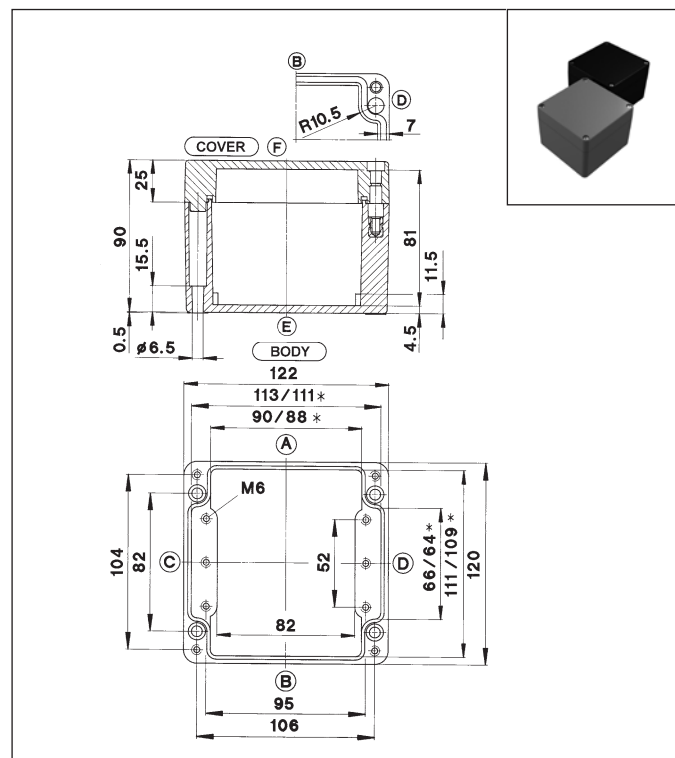
| Type | CP-195 | CPS-195 | | | | | | |
|---|--------------------|---------|----|----|----|----|----|----|
| Weight (g) | 530 | 530 | | | | | | |
| External dimension (mm) | 190 x 75 x 75 | | | | | | | |
| Ordering data Enclosure with seal (PUR) | Part number | | | | | | | |
| RAL 7000 (squirrel grey), with cover screws | 4190000050 | | | | | | | |
| RAL 9005 (jet black), with cover screws | 5190000050 | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Accessories (individual part or installation kit) | | | | | | | | |
| Mounting plate | 9823003000 | | | | | | | |
| Mounting rail TS 15 | 9820015000 | | | | | | | |
| Mounting rail TS 32 | – | | | | | | | |
| Mounting rail TS 35 | – | | | | | | | |
| Earthing rail | – | | | | | | | |
| External mounting brackets | 9824000000 | | | | | | | |
| External articulated hinges for CP** enclosures | – | | | | | | | |
| External articulated hinges for CPS** enclosures | – | | | | | | | |
| Internal articulated hinges with cover guide** | – | | | | | | | |
| Silicone seal for extended temperature range (by the metre) | on request | | | | | | | |
| Maximum possible number of threads | | | | | | | | |
| ISO M | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 |
| Side A/B | 24 | 12 | 8 | 4 | 3 | 0 | 0 | 0 |
| Side C/D | 4 | 1 | 1 | 1 | 1 | 0 | 0 | 0 |
| ** Enclosure preparation required | | | | | | | | |

Polyester Enclosures – Series CP

122 x 120 x 90,5 mm

CP-220 RAL 7000 (squirrel grey)

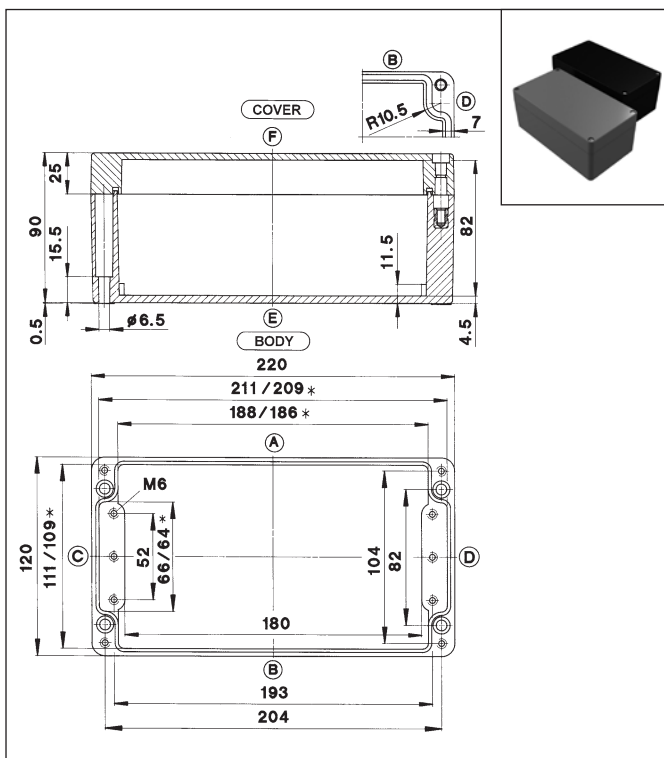
CPS-220 RAL 9005 (jet black)



220 x 120 x 90,5 mm

CP-240 RAL 7000 (squirrel grey)

CPS-240 RAL 9005 (jet black)



* Smaller dimension at mounting plate support

| Type | CP-220 | CPS-220 |
|---|--------------------|----------------------|
| Weight (g) | 750 | 750 |
| External dimension (mm) | 122 x 120 x 90,5 | |
| Ordering data Enclosure with seal (PUR) | Part number | |
| RAL 7000 (squirrel grey), with cover screws | 4220000000 | |
| RAL 9005 (jet black), with cover screws | 5220000000 | |
| | | |
| | | |
| | | |
| | | |
| Accessories (individual part or installation kit) | | |
| Mounting plate | 9823004000 | |
| Mounting rail TS 15 | – | |
| Mounting rail TS 32 | 9821000000 | |
| Mounting rail TS 35 | 9822001000 | |
| Earthing rail | 9810002000 | |
| External mounting brackets | 9824001000 | |
| External articulated hinges for CP** enclosures | 9801045000 | |
| External articulated hinges for CPS** enclosures | 9801046000 | |
| Internal articulated hinges with cover guide** | – | |
| Silicone seal for extended temperature range (by the metre) | on request | |
| Maximum possible number of threads | | |
| ISO M | 12 | 16 20 25 32 40 50 63 |
| Side A/B | 13 | 6 4 3 2 1 0 0 |
| Side C/D | 6 | 3 2 2 1 0 0 0 |
| ** Enclosure preparation required | | |

* Smaller dimension at mounting plate support

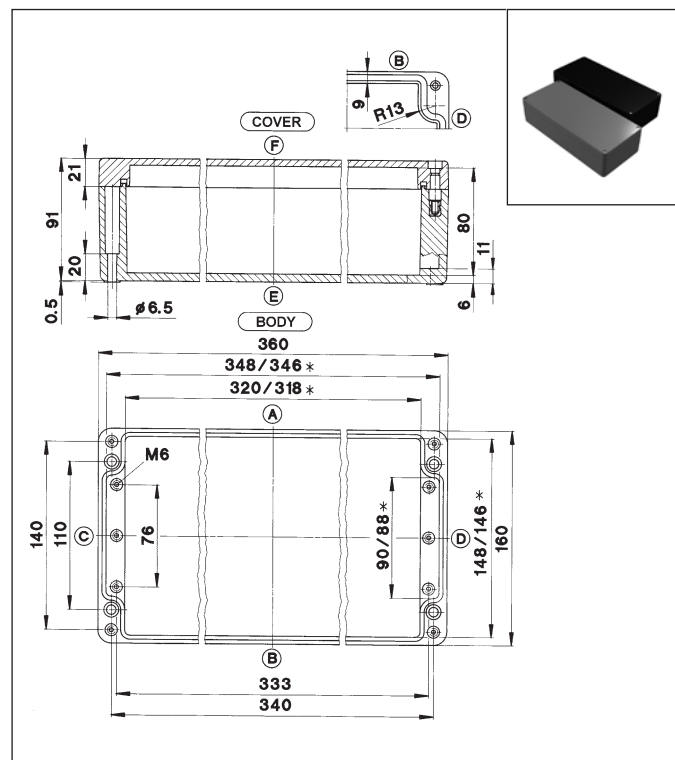
| Type | CP-240 | CPS-240 |
|---|--------------------|----------------------|
| Weight (g) | 1060 | 1060 |
| External dimension (mm) | 220 x 120 x 90,5 | |
| Ordering data Enclosure with seal (PUR) | Part number | |
| RAL 7000 (squirrel grey), with cover screws | 4240000000 | |
| RAL 9005 (jet black), with cover screws | 5240000000 | |
| | | |
| | | |
| | | |
| | | |
| Accessories (individual part or installation kit) | | |
| Mounting plate | 9823005000 | |
| Mounting rail TS 15 | – | |
| Mounting rail TS 32 | 9821005000 | |
| Mounting rail TS 35 | 9822007000 | |
| Earthing rail | 9810008000 | |
| External mounting brackets | 9824001000 | |
| External articulated hinges for CP** enclosures | 9801045000 | |
| External articulated hinges for CPS** enclosures | 9801046000 | |
| Internal articulated hinges with cover guide** | – | |
| Silicone seal for extended temperature range (by the metre) | on request | |
| Maximum possible number of threads | | |
| ISO M | 12 | 16 20 25 32 40 50 63 |
| Side A/B | 27 | 12 9 6 4 3 0 0 |
| Side C/D | 6 | 3 2 2 1 0 0 0 |
| ** Enclosure preparation required | | |

Polyester Enclosures – Series CP

360 x 160 x 91 mm

CP-320 RAL 7000 (squirrel grey)

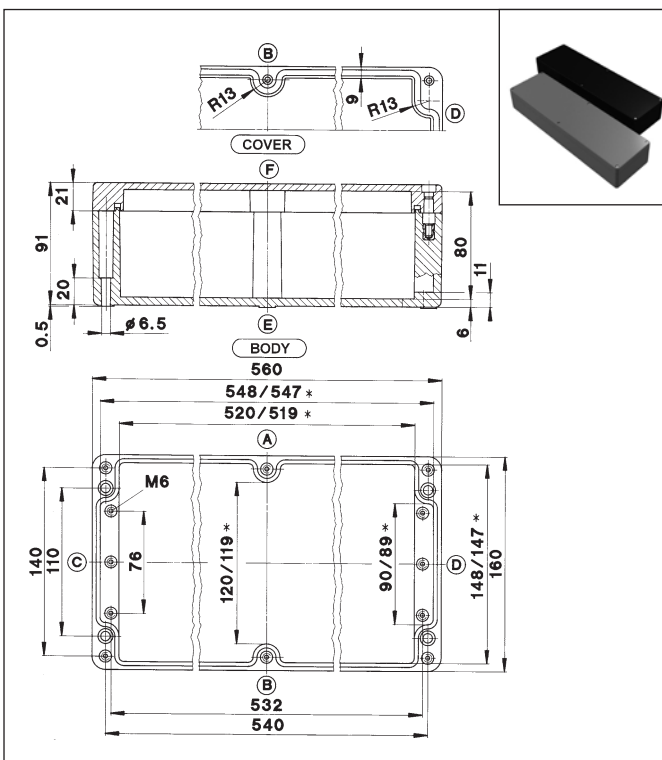
CPS-320 RAL 9005 (jet black)



560 x 160 x 91 mm

CP-330 RAL 7000 (squirrel grey)

CPS-330 RAL 9005 (jet black)



* Smaller dimension at mounting plate support

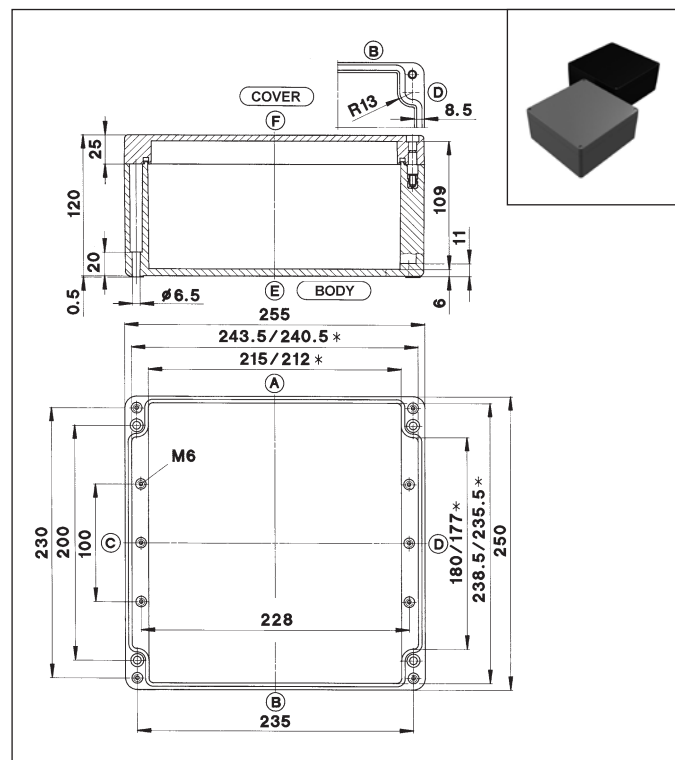
| Type | CP-320 | CPS-320 | | | | | | |
|---|--------------------|---------|----|----|----|----|----|----|
| Weight (g) | 2150 | 2150 | | | | | | |
| External dimension (mm) | 360 x 160 x 91 | | | | | | | |
| Ordering data Enclosure with seal (PUR) | Part number | | | | | | | |
| RAL 7000 (squirrel grey), with cover screws | 4320000000 | | | | | | | |
| RAL 9005 (jet black), with cover screws | 5320000000 | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Accessories (individual part or installation kit) | | | | | | | | |
| Mounting plate | 9823008000 | | | | | | | |
| Mounting rail TS 15 | - | | | | | | | |
| Mounting rail TS 32 | 9821012000 | | | | | | | |
| Mounting rail TS 35 | 9822015000 | | | | | | | |
| Earthing rail | 9810014000 | | | | | | | |
| External mounting brackets | 9824004000 | | | | | | | |
| External articulated hinges for CP** enclosures | 9801045000 | | | | | | | |
| External articulated hinges for CPS** enclosures | 9801046000 | | | | | | | |
| Internal articulated hinges with cover guide** | 9801032000 | | | | | | | |
| Silicone seal for extended temperature range (by the metre) | on request | | | | | | | |
| | | | | | | | | |
| Maximum possible number of threads | | | | | | | | |
| ISO M | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 |
| Side A/B | 48 | 23 | 18 | 11 | 7 | 5 | 4 | 0 |
| Side C/D | 9 | 4 | 3 | 2 | 2 | 1 | 0 | 0 |
| ** Enclosure preparation required | | | | | | | | |

* Smaller dimension at mounting plate support

| Type | CP-330 | CPS-330 | | | | | | |
|---|--------------------|---------|----|----|----|----|----|----|
| Weight (g) | 3185 | 3185 | | | | | | |
| External dimension (mm) | 560 x 160 x 91 | | | | | | | |
| Ordering data Enclosure with seal (PUR) | Part number | | | | | | | |
| RAL 7000 (squirrel grey), with cover screws | 4330000000 | | | | | | | |
| RAL 9005 (jet black), with cover screws | 5330000000 | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Accessories (individual part or installation kit) | | | | | | | | |
| Mounting plate | 9823085000 | | | | | | | |
| Mounting rail TS 15 | – | | | | | | | |
| Mounting rail TS 32 | 9821015000 | | | | | | | |
| Mounting rail TS 35 | 9822018000 | | | | | | | |
| Earthing rail | 9810016000 | | | | | | | |
| External mounting brackets | 9824004000 | | | | | | | |
| External articulated hinges for CP** enclosures | 9801045000 | | | | | | | |
| External articulated hinges for CPS** enclosures | 9801046000 | | | | | | | |
| Internal articulated hinges with cover guide** | 9801032000 | | | | | | | |
| Silicone seal for extended temperature range (by the metre) | on request | | | | | | | |
| Maximum possible number of threads | | | | | | | | |
| ISO M | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 |
| Side A/B | 76 | 40 | 28 | 18 | 10 | 8 | 6 | 0 |
| Side C/D | 9 | 4 | 3 | 2 | 2 | 1 | 0 | 0 |
| ** Enclosure preparation required | | | | | | | | |

255 x 250 x 120 mm

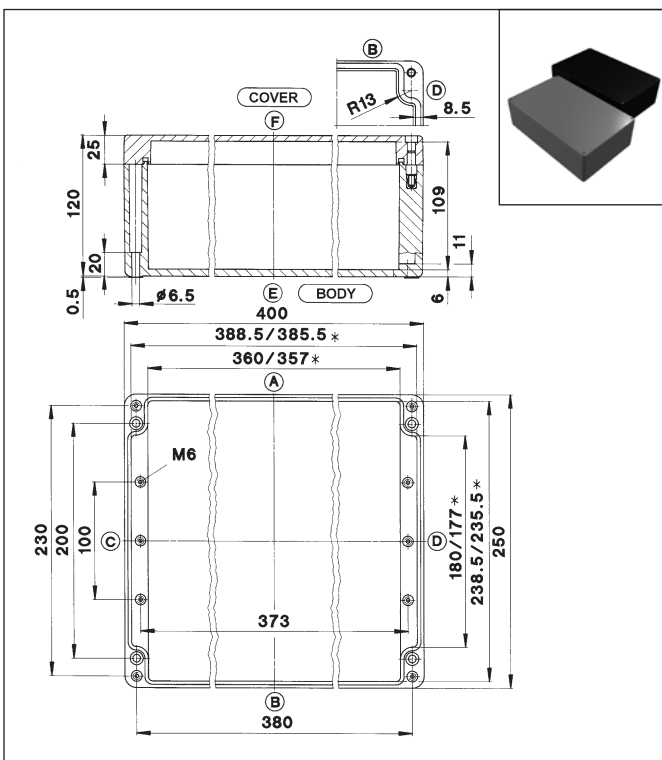
CP-370 RAL 7000 (squirrel grey)
CPS-370 RAL 9005 (jet black)



400 x 250 x 120 mm

CP-400 RAL 7000 (squirrel grey)
CPS-400 RAL 9005 (jet black)

CAD files available
at www.bernstein.eu



* Smaller dimension at mounting plate support

| Type | CP-370 | CPS-370 | | | | | | |
|---|--------------------|---------|----|----|----|----|----|----|
| Weight (g) | 2650 | 2650 | | | | | | |
| External dimension (mm) | 255 x 250 x 120 | | | | | | | |
| Ordering data Enclosure with seal (PUR) | Part number | | | | | | | |
| RAL 7000 (squirrel grey), with cover screws | 4370000000 | | | | | | | |
| RAL 9005 (jet black), with cover screws | 5370000000 | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Accessories (individual part or installation kit) | | | | | | | | |
| Mounting plate | 9823009000 | | | | | | | |
| Mounting rail TS 15 | - | | | | | | | |
| Mounting rail TS 32 | 9821007000 | | | | | | | |
| Mounting rail TS 35 | 9822010000 | | | | | | | |
| Earthing rail | 9810035000 | | | | | | | |
| External mounting brackets | 9824011000 | | | | | | | |
| External articulated hinges for CP** enclosures | 9801045000 | | | | | | | |
| External articulated hinges for CPS** enclosures | 9801046000 | | | | | | | |
| Internal articulated hinges with cover guide** | 9801032000 | | | | | | | |
| Silicone seal for extended temperature range (by the metre) | on request | | | | | | | |
| | | | | | | | | |
| Maximum possible number of threads | | | | | | | | |
| ISO M | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 |
| Side A/B | 42 | 23 | 17 | 11 | 7 | 4 | 3 | 3 |
| Side C/D | 32 | 14 | 10 | 16 | 4 | 3 | 2 | 2 |
| ** Enclosure preparation required | | | | | | | | |

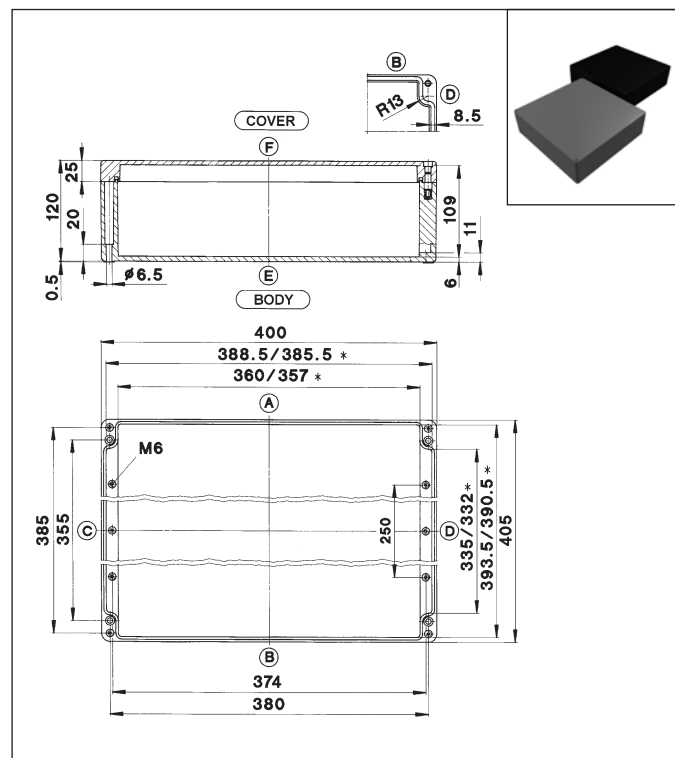
* Smaller dimension at mounting plate support

| Type | CP-400 | CPS-400 | | | | | | |
|---|--------------------|---------|----|----|----|----|----|----|
| Weight (g) | 3650 | 3650 | | | | | | |
| External dimension (mm) | 400 x 250 x 120 | | | | | | | |
| Ordering data Enclosure with seal (PUR) | Part number | | | | | | | |
| RAL 7000 (squirrel grey), with cover screws | 4400000000 | | | | | | | |
| RAL 9005 (jet black), with cover screws | 5400000000 | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Accessories (individual part or installation kit) | | | | | | | | |
| Mounting plate | 9823010000 | | | | | | | |
| Mounting rail TS 15 | - | | | | | | | |
| Mounting rail TS 32 | 9821014000 | | | | | | | |
| Mounting rail TS 35 | 9822017000 | | | | | | | |
| Earthing rail | 9810015000 | | | | | | | |
| External mounting brackets | 9824011000 | | | | | | | |
| External articulated hinges for CP** enclosures | 9801045000 | | | | | | | |
| External articulated hinges for CPS** enclosures | 9801046000 | | | | | | | |
| Internal articulated hinges with cover guide** | 9801032000 | | | | | | | |
| Silicone seal for extended temperature range (by the metre) | on request | | | | | | | |
| Maximum possible number of threads | | | | | | | | |
| ISO M | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 |
| Side A/B | 74 | 38 | 27 | 17 | 13 | 6 | 5 | 4 |
| Side C/D | 32 | 14 | 10 | 8 | 4 | 3 | 2 | 2 |
| ** Enclosure preparation required | | | | | | | | |

Polyester Enclosures – Series CP

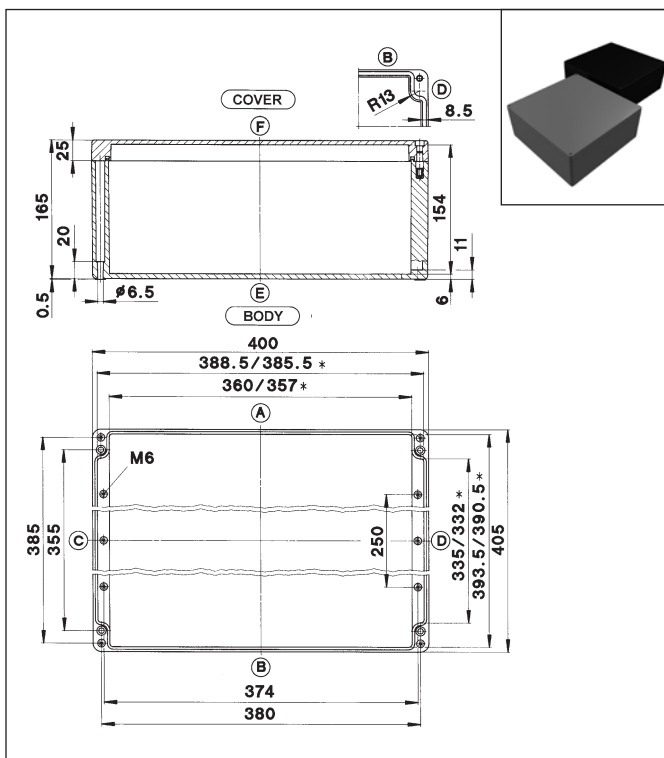
400 x 405 x 120 mm

CP-450 RAL 7000 (squirrel grey)
CPS-450 RAL 9005 (jet black)



400 x 405 x 165 mm

CP-460 RAL 7000 (squirrel grey)
CPS-460 RAL 9005 (jet black)





* Smaller dimension at mounting plate support



| Type | CP-450 | CPS-450 |
|---|--------------------|----------------------|
| Weight (g) | 5580 | 5580 |
| External dimension (mm) | 400 x 405 x 120 | |
| Ordering data Enclosure with seal (PUR) | Part number | |
| RAL 7000 (squirrel grey), with cover screws | 4450000000 | |
| RAL 9005 (jet black), with cover screws | 5450000000 | |
| | | |
| | | |
| | | |
| | | |
| | | |
| Accessories (individual part or installation kit) | | |
| Mounting plate | 9823011000 | |
| Mounting rail TS 15 | - | |
| Mounting rail TS 32 | 9821014000 | |
| Mounting rail TS 35 | 9822017000 | |
| Earthing rail | 9810015000 | |
| External mounting brackets | 9824012000 | |
| External articulated hinges for CP** enclosures | 9801045000 | |
| External articulated hinges for CPS** enclosures | 9801046000 | |
| Internal articulated hinges with cover guide** | 9801032000 | |
| Silicone seal for extended temperature range (by the metre) | on request | |
| | | |
| Maximum possible number of threads | | |
| ISO M | 12 | 16 20 25 32 40 50 63 |
| Side A/B | 74 | 38 27 17 13 6 5 4 |
| Side C/D | 57 | 29 20 15 7 5 4 4 |
| ** Enclosure preparation required | | |



* Smaller dimension at mounting plate support

| Type | CP-460 | CPS-460 |
|---|--------------------|----------------------|
| Weight (g) | 7740 | 7740 |
| External dimension (mm) | 400 x 405 x 165 | |
| Ordering data Enclosure with seal (PUR) | Part number | |
| RAL 7000 (squirrel grey), with cover screws | 4460000000 | |
| RAL 9005 (jet black), with cover screws | 5460000000 | |
| | | |
| | | |
| | | |
| | | |
| | | |
| Accessories (individual part or installation kit) | | |
| Mounting plate | 9823011000 | |
| Mounting rail TS 15 | – | |
| Mounting rail TS 32 | 9821014000 | |
| Mounting rail TS 35 | 9822017000 | |
| Earthing rail | 9810015000 | |
| External mounting brackets | 9824012000 | |
| External articulated hinges for CP** enclosures | 9801045000 | |
| External articulated hinges for CPS** enclosures | 9801046000 | |
| Internal articulated hinges with cover guide** | 9801032000 | |
| Silicone seal for extended temperature range (by the metre) | on request | |
| Maximum possible number of threads | | |
| ISO M | 12 | 16 20 25 32 40 50 63 |
| Side A/B | 105 | 56 40 27 20 10 9 8 |
| Side C/D | 92 | 45 30 23 12 9 6 5 |
| ** Enclosure preparation required | | |

Screwed Cable Glands for Standard Enclosures

| Plastic cable glands in RAL 7001 | | | | | | |
|----------------------------------|----------------------|---|-------------|--------------|---|----------------|
| General technical data | | | Thread size | Cable ø (mm) | *  | Article number |
| Colour | RAL 7001 | | M12 x 1.5 | 3–6 | 15 | 9432462000 |
| Temperature range | –20°C to +100°C |  | M16 x 1.5 | 5–10 | 20 | 9432463000 |
| Protection class | IP68 | | M20 x 1.5 | 8–13 | 24 | 9432464000 |
| Material | Polyamide PAG V-2 | | M25 x 1.5 | 11–17 | 29 | 9432465000 |
| Sealing element | CR/NBR | | M32 x 1.5 | 15–21 | 36 | 9432466000 |
| | | | M40 x 1.5 | 19–28 | 46 | 9432467000 |
| | | | M50 x 1.5 | 27–35 | 55 | 9432468000 |
| | | | M63 x 1.5 | 32–42 | 68 | 9432469000 |
| | | | PG7 | 3–6,5 | 15 | 9432291000 |
| | | | PG9 | 4–8 | 19 | 9432292000 |
| | | | PG11 | 5–10 | 22 | 9432293000 |
| | | | PG13.5 | 6–12 | 24 | 9432294000 |
| | | | PG16 | 10–14 | 27 | 9432295000 |
| | | | PG21 | 13–18 | 33 | 9432296000 |
| | | | PG29 | 18–25 | 42 | 9432297000 |
| | | | PG36 | 22–32 | 53 | 9432298000 |
| | | | PG42 | 30–38 | 60 | 9432299000 |
| | | | PG48 | 34–44 | 65 | 9432300000 |

| Plastic cable glands in RAL 7035 | | | | | | |
|----------------------------------|----------------|---|-------------|--------------|--|----------------|
| General technical data | | | Thread size | Cable ø (mm) | *  | Article number |
| Colour | RAL 7035 | | M12 x 1.5 | 3–6,5 | 15 | 9432549000 |
| Temperature range | –30°C to +80°C |  | M16 x 1.5 | 5–10 | 22 | 9432455000 |
| Protection class | IP68 | | M20 x 1.5 | 6–12 | 24 | 9432548000 |
| Material | Polyamide 6 | | M20 x 1.5 | 10–14 | 27 | 9432456000 |
| Sealing element | Neoprene | | M25 x 1.5 | 13–18 | 33 | 9432457000 |
| | | | M32 x 1.5 | 18–25 | 36 | 9432458000 |
| | | | M40 x 1.5 | 22–23 | 46 | 9432459000 |
| | | | M50 x 1.5 | 30–38 | 60 | 9432460000 |
| | | | M63 x 1.5 | 34–44 | 65 | 9432461000 |
| | | | PG7 | 3–6,5 | 15 | 9432445000 |
| | | | PG9 | 4–8 | 19 | 9432446000 |
| | | | PG11 | 5–10 | 22 | 9432447000 |
| | | | PG13.5 | 6–12 | 24 | 9432448000 |
| | | | PG16 | 10–14 | 27 | 9432449000 |
| | | | PG21 | 13–18 | 33 | 9432450000 |
| | | | PG29 | 18–25 | 42 | 9432451000 |

| Brass cable glands for standard enclosures type CA | | | | | | |
|--|-----------------|---|-------------|--------------|---|----------------|
| General technical data | | | Thread size | Cable ø (mm) | *  | Article number |
| Temperature range | –20°C to +100°C | | M12 x 1.5 | 3–6 | 14 | 9431280000 |
| Protection class | IP68 |  | M16 x 1.5 | 5–9 | 17 | 9431281000 |
| Material | Brass | | M20 x 1.5 | 9–13 | 22 | 9431282000 |
| Sealing element | CR/NBR | | M25 x 1.5 | 11–16 | 27 | 9431283000 |
| | | | M32 x 1.5 | 14–21 | 34 | 9431284000 |
| | | | M40 x 1.5 | 19–27 | 43 | 9431285000 |
| | | | M50 x 1.5 | 24–35 | 55 | 9431286000 |
| | | | M63 x 1.5 | 32–42 | 65 | 9431287000 |
| | | | PG7 | 3–6,5 | 14 | 9431165000 |
| | | | PG9 | 4–8 | 17 | 9431166000 |
| | | | PG11 | 5–10 | 20 | 9431167000 |
| | | | PG13.5 | 6–12 | 22 | 9431168000 |
| | | | PG16 | 10–14 | 24 | 9431169000 |
| | | | PG21 | 13–18 | 30 | 9431170000 |
| | | | PG29 | 18–25 | 40 | 9431171000 |
| | | | PG36 | 24–32 | 50 | 9431172000 |
| | | | PG42 | 30–38 | 57 | 9431173000 |
| | | | PG48 | 34–44 | 64 | 9431174000 |

*  WAF (mm)

Other screwed cable glands available on request.

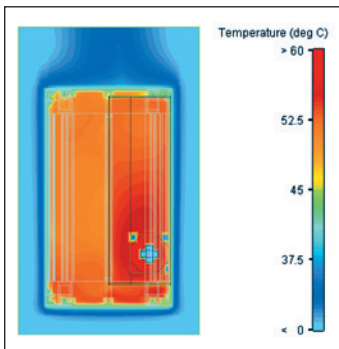
Control Enclosures by BERNSTEIN

Design aspects along with modularity, functionality and ergonomics, are rapidly becoming more and more important for plant and machinery manufacturers, especially when selecting the appropriate control enclosure for their machines and installations. To meet the increasing demand for aesthetically pleasing enclosures, we have developed a new BERNSTEIN Control Enclosure System. See for yourself.



Optimum heat dissipation due to single-walled sections

Due to the single-walled version of the aluminium sections, a good and passive heat dissipation that complies with the protection class IP65 is assured. For applications with an increased requirement for heat dissipation, wear resistant and maintenance-free ventilators or air conditioners are available.



Suspension system attachment

The suspension systems from BERNSTEIN also combine functionality with attractive design. The high quality material is extremely stable, easy to clean, and simple and quick to install. An extremely high load capacity allows individual configurations for different requirements.



Modular Aluminium Control Enclosure CC-5000 ^{neXt}

Protection in its most beautiful form

The aluminium control enclosure CC-5000 neXt offers a unique design with a number of accessories such as the status light. The rounded contours ensure the enclosure is highly recognisable in machinery and mechanical engineering applications. Dimensions up to a maximum 1000 mm in height and width with possible installation depths from 53 to 334 mm.



Modular Aluminium Control Enclosures CC-4000 and CC-4000 SL

The technical features of the CC-4000 enclosures encapsulate industrial controllers and operator control panels for centralised and decentralised automation in production processes. Thanks to the modular design, the enclosure dimensions can be freely selected (up to 800 x 800) with depths ranging from 52 mm up to maximum 646 mm.

The CC-4000 SL has an elegant and lean profile design, making the complete machine and system appear modern and dynamic.



Modular Aluminium Light-Duty Control Enclosure CC-3000

The CC-3000 is especially suitable for encapsulating control units, industrial computers and display components. It can be freely selected in height and width up to a maximum dimension of approximately 600 x 600 mm.

Different enclosure depths are possible due to the combination of aluminium sections (120 mm and 200 mm) with the additional door section (55 mm). BERNSTEIN offers sections in standard and handle versions.



Modular Aluminium Control Enclosure CC-5000 neXt

Product features

- Custom versions can be supplied to meet individual customer specifications (see "Checklists" chapter)
- Innovative and modern industrial design
- Rounded edges, no risk of physical injury
- High-quality extruded aluminium sections (naturally anodised)
- Customised colours from RAL range
- Single-walled sections that provide outstanding heat dissipation
- Integrated recessed grips for simple handling
- Protection class IP65
- Operating temperature -30 °C to +80 °C
- Internally mounted front panel
- Door configurations for direct access to the interior
- Slimline design for configuring flat screen systems

Material

- | | |
|--|-------------------|
| ● Extruded sections | Aluminium |
| ● Die-cast corners | Aluminium |
| ● Die-cast caps | Aluminium |
| ● Sealings between section and corner module | PUR |
| ● Sealings for front panel and rear panel | EPDM, PUR and PVC |
| ● Hinge (for section combinations) | Aluminium |
| ● Articulated hinge (for enclosure with single sections) | Aluminium |
| ● Front panel, rear panel | Aluminium |

Colour

- Sections naturally anodised (standard)
- Front panel, rear panel naturally anodised (standard)
- Corner modules RAL 9006, white aluminium (standard)
- All components can be optionally powder-coated to a wide variety of RAL colours

Dimensions

- Width x height maximum: 1000 mm x 1000 mm
- Width x height minimum: 277 mm x 377 mm

Control Enclosure versions

The dimensions of the control enclosure CC-5000 neXt (along with our existing series CC-3000, CC-4000 and CC-4000 SL) are freely selectable. Nine possible depths are available. The obtained installation depths range from 53 mm to 334 mm. The width and height dimensions are offered up to 1000 mm in either direction.

Frames can be used in individual or multiple combinations. Innovative console configurations are possible thanks to a connecting element which has been designed in line with the new design.

☒ Checklist CC-5000 neXt on page 94.

Modular system



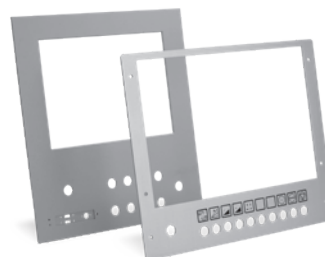
Approvals

c UL us
(label on demand)



Front panel

- Internally-mounted front panel through clamping tie bar
- Machining for integrating IPCs or Panel-PCs, push buttons and interfaces or engravings on demand
- Screen print according to your specifications



Individual colour combination

You are even able to personalise the colour of the enclosure to your specific corporate identity. Corner modules, front and rear panel, as well as the sections can all be optionally powder-coated to a wide variety of RAL colours. The corner modules are powder coated to RAL 9006 as standard, and the extruded sections are anodised (see CC-5000 neXt on page 74).

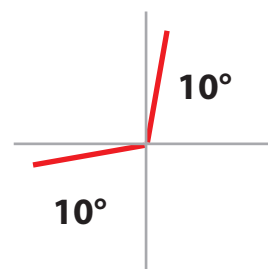
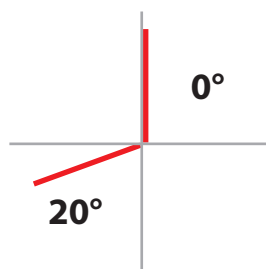


Console version

System features

For console versions, the keyboard is located in a separate housing. The coupling head specially aligned to this enclosure series makes the control panel (upper section) and the keyboard console (lower section) a compact unit.

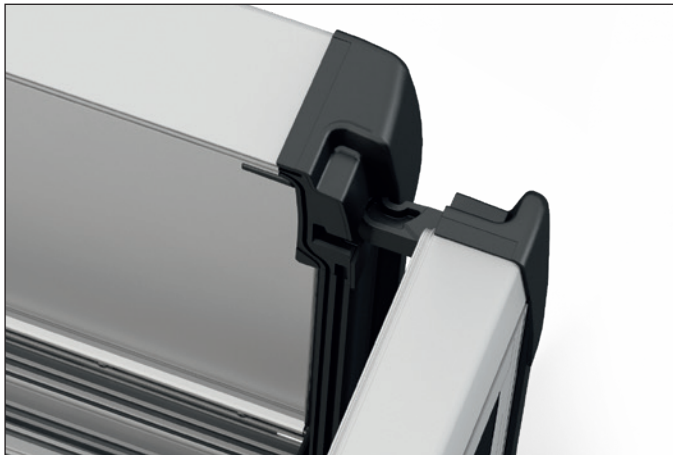
The keyboard console can be inclined downwards by 20 degrees (when the control panel is positioned vertically) or 10 degrees (when the control panel is inclined backwards by 10 degrees).



Modular Aluminium Control Enclosure CC-5000^{next}

Highlights

Hinge



- New concealed hinge design
- Hinge is unseen when door is closed
- Unique in the market today

Door centring



- Door centred via alignment feature
- Invisible in closed position
- Secure door closing



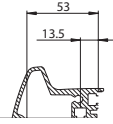

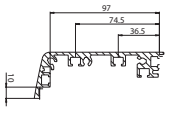

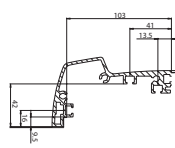

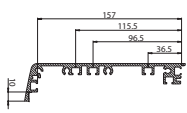

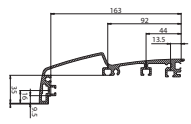

Optional signal light



- Signal light integrated in the design (RGB-LED)







Individual frames



| External dimension | Internal dimension | Horizontal section | | Vertical (handle) section | |
|--------------------|--------------------|---|---|---|---|
| 75 mm | 53 mm |  |  |  |  |
| 125 mm | 103 mm |  |  |  |  |
| 185 mm | 163 mm |  |  |  |  |

Double frames (see figure vertical handle sections)



| External dimension | Internal dimension | |
|---------------------------------------|--------------------|--|
| 150 mm (75 + 75) | 114 mm |  |
| 200 mm (75 + 125 or 125 + 75) | 164 mm |  |
| 250 mm (125 + 125) | 214 mm |  |
| 260 mm (75 + 185 or 185 + 75) | 224 mm |  |
| 310 mm (125 + 185 or 185 + 125) | 274 mm |  |
| 370 mm (185 + 185) | 334 mm |  |

Modular Aluminium Control Enclosures CC-4000 and CC-4000 SL

Product features

- Custom versions can be supplied to meet individual customer specifications (see "Checklists" chapter)
- Simple and modern industrial design
- Freely selectable width and height (max. 800 x 800)
- Depths from 52 mm up to max. 646 mm
- High-quality aluminium casting with surface finish
- Coloured areas that emphasize the design
- Single-walled aluminium sections that provide outstanding heat dissipation
- Integrated handle elements with vertical section
- Protection class IP65
- Front panels internally-mounted or externally-mounted
- Simple installation of control units, or visualisation devices, thanks to all-round mounting grooves inside the enclosure

Product features SL (in addition to CC-4000)

- Two enclosure depths (55 and 99 mm)
- Slimline design



Approvals

- c UL us (label on demand)
- TÜV



 Checklist CC-4000 on page 98 onwards.



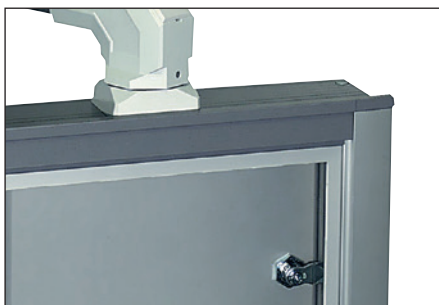
Handle sections left: CC-4000 SL
Handle sections right: CC-4000



Application with control unit, partition and two-row operator control panel



Application with control unit



CC-4000 SL with suspension system attachment CS-2000 SL and front panel aperture



CC-4000 SL with partition and externally-mounted two-row operator control panel

- Externally mounted front panel:
Inner depth = Outer depth – 14 mm
- Internally mounted front panel:
Inner depth = Outer depth – 20 mm

CC-4000

Thanks to a variant modular system, we are able to offer enclosures according to customer needs. The desired width or height can be achieved by cutting and processing the sections. Based on our aluminium frame sections, depths from 52 mm up to maximum of 646 mm are possible.

You determine the type of access

- Hinged rear panel
- Frame section as front door for hinged mounted controller
- Frame section as rear door with articulated hinge (fixed or detachable) for servicing purposes



The single-walled aluminium section offers superior heat dissipation. In double-walled enclosures, the entrapped air acts as an insulator. Rear panel heatsink, internal ventilators or climate devices can be used for challenging applications. You will find further information in our accessory program for control enclosures.

The BERNSTEIN suspension systems are ideal for attaching control enclosures to machines, walls or the floor (see "suspension systems" chapter). Selection of the suitable system depends on the arm length and the total weight of the enclosure. We would be pleased to assist you in selecting the right system for your application.



Opening CC-4000 enclosure from front with hinged frame section



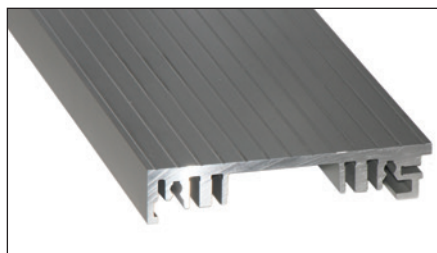
Opening CC-4000 enclosure from rear with flush-closing door



Detaching entire frame section



Ergonomically formed handles make safe handling easy

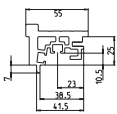

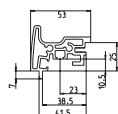

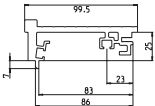

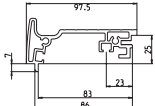



Generously sized cable channels and all-round mounting grooves to install control units

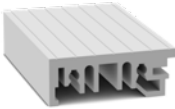
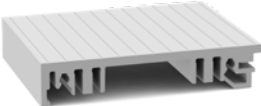
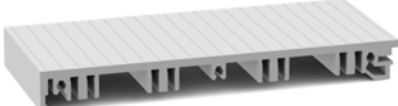


Different enclosure depths thanks to the combination of frame and extension sections

Front section SL version

| External dimension | Internal dimension | Horizontal section | | Vertical (handle) section | |
|--------------------|--------------------|---|---|---|---|
| 55 mm | 35 mm |  |  |  |  |
| 99 mm | 79 mm |  |  |  |  |

Extension section for front section

| External dimension | Internal dimension | |
|--------------------|--------------------|--|
| 68 mm | 68 mm |  |
| 128 mm | 128 mm |  |
| 228 mm | 228 mm |  |

Modular Aluminium Light-Duty Control Enclosure CC-3000

Product features

- Custom versions can be supplied to meet individual customer specifications (see "Checklists" chapter)
- Monitor-based industrial design
- Freely selectable width and height (max. 600 x 600)
- Customised colours from RAL range
- Five possible enclosure designs
- Optimum heat dissipation due to single-walled sections
- Front panels internally-mounted or externally-mounted
- Protection class IP65
- Screw-fixed or hinged rear panel
- Rear panel attachments without restricting installation space
- Internal grooves for fixing components
- Extensive range of accessories (see chapter „Accessories“)

Material

- Extruded aluminium section Al Mg Si 05
- Pressure die-cast aluminium corners Al Si 12
- Seals between section and corner module Plastic
- Seal between front panel and rear panel CR
- Hinge, articulated hinge Al Mg Si 05
- Front panel, rear panel Al Mg

Colour

- Sections naturally anodised
- Front panel, rear panel naturally anodised
- Corner modules RAL 9006



Approvals

c UL us
(label on demand)



✓ Checklist CC-3000 on page 102.



No handles



Handles on left and right



Handles on left, right and bottom (U-shaped)



Handles all round

Besides width, the height and depth can also be freely selected:

- Door hinge mounted on left or right
- Machining of the enclosures for mounting suspension systems
- Colour of corner modules
- Ready-to-use front panels according to customer specifications (incl. screen print or engraving)
- Specific preparation and wiring (see page 12, „System Solutions“)

A checklist will help you to define the required enclosure configuration while also serving as enquiry and order form (see page 102, „Checklists“).

Modular Aluminium Light-Duty Control Enclosure CC-3000



Fixed rear panel



Hinged rear panel with lock

The rear panel can be screwed down or configured as a door. The door version is used with hinges or articulated hinges and the installation space is not restricted.



Internally-mounted front panel

BERNSTEIN offers a practical assembly system to make installation simple - machining of the front plate is not necessary in this case. The fixing elements can easily be moved inside the enclosure, making it easier for the user to adjust if required.



Externally-mounted front panel

The advantages of an externally mounted front panel are that there is no longer a profile edge, and an additional installation space is created. Elements including threaded studs welded on the back of the front panel enable fixing - the same applies when the door extension is used.

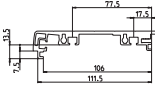
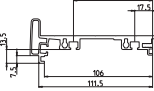
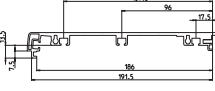
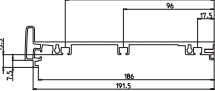
Built-in components

The extruded aluminium section features all-round grooves, allowing components to be simply secured with spring nuts without the need for mechanical modification to the enclosure.



All-round mounting grooves simplify installation



Frame section

| External dimension | Internal dimension | Horizontal section | Handle section |
|--------------------|--------------------|---|---|
| 120 mm | 103 mm |  |  |
| 200 mm | 183 mm |  |  |

Door section

| External dimension | Internal dimension | Horizontal section | Handle section |
|--------------------|--------------------|--|--|
| 55 mm | 46 mm |  |  |

Double frames (see figure vertical handle sections)

| External dimension | Internal dimension | |
|----------------------|--------------------|--|
| 175 mm (120 + 55) | 149 mm |  |
| 255 mm (200 + 55) | 229 mm |  |

Front panel / rear panel externally mounted lead to an additional installation depth of 8 mm.

Aluminium section depth comparison: 200 mm (left) and 120 mm (right) Version: hinged door



Example photo Single frame



Example photo Double frame

Attachment solutions for control enclosures

Single coupling head (suspended console version)

Article number 9808013100



The coupling head (single) combines the upper section of the console that is attached to a suspension system from above with the lower section. The lower section of the console can be seamlessly adjusted between 0 and 30°. Through the installation openings to the sides, cables can easily be positioned. The coupling head is available in RAL 7035 or in RAL 9006. Other colours are available on request.

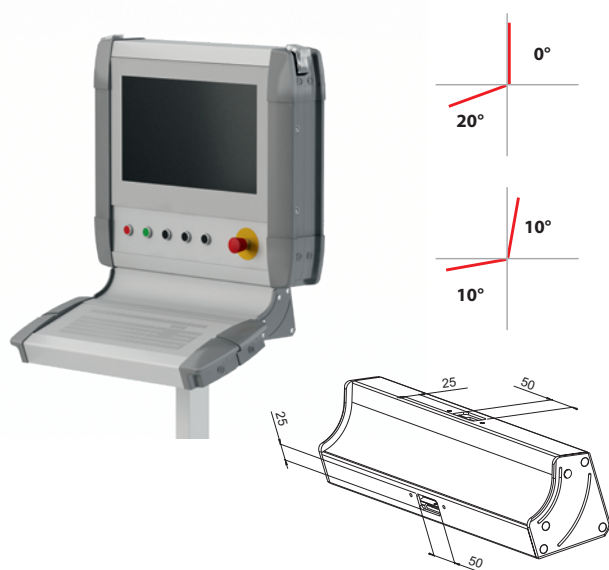
Double coupling head (console version with suspension system attachment)

Article number 9808013000



The coupling head (double) combines the upper section of the console with the lower section. The suspension system is attached using a CS-3000 coupling head. An infinitely variable angle adjustment of the upper section (0 - 30°) and of the lower section (0 - 20°) is possible. The coupling head is available as standard in RAL 7016 and in RAL 9006, other colours are available on request.

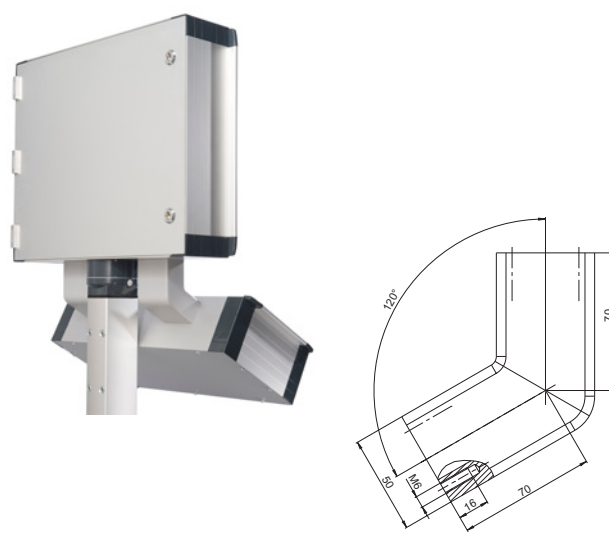
Coupling head CC-5000 neXt



The coupling head section is particularly suitable for applications where the focus is on a design-based solution. The section offers a very solid connection when using heavy and large enclosures thanks to plane support. The rear side has an installation opening for optimal cable leadthrough. The section is anodised and the side caps are offered in RAL 9006 as standard - other colours can be defined when filling out the checklist.

Rigid coupling head

Article number 9806493000



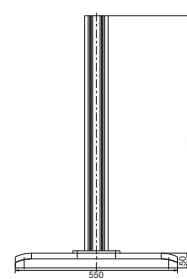
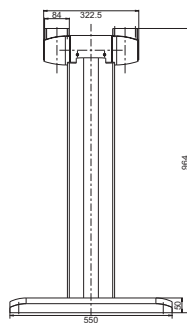
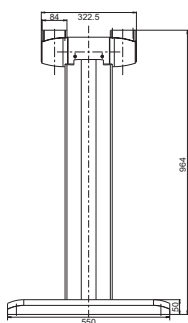
For the attachment of the console upper section to the lower section. The lower section of the console is fixed and inclined by 30°. The cable channel is realised by the coupling head. The coupling heads are coated similar to RAL 9006. Set of 2 pieces, complete with installation material.



Single stand
Article number 1016786000

Console stand
Article number 1016787000

Stand CC-3000
Article number 1016509100



Upright stand with integrated coupling head for hinged attachment (infinitely variable adjustment from 0° to 30°) on BERNSTEIN control enclosures. Colour RAL 7035
Complete with installation material and instructions; mechanical machining in control enclosures is necessary.

Upright stand with integrated coupling head for hinged attachment of BERNSTEIN control enclosures (infinitely variable adjustment from 0° to 30°) and keyboard enclosures (infinitely variable adjustment from 0° to 20°). Colour RAL 7035
Complete with installation material and instructions; mechanical machining in control and keyboard enclosures is necessary.

Upright stand with straight column for mounting control enclosures. Coated similar to RAL 7035. Please order castors and coupling components separately.

Tube 80 with cable channel

Industrial castors
Article number 9808012800



Set of castors, consisting of 4 swivel wheels. Complete with installation material and instructions. Load-bearing capacity of each castor 50 kg
Construction height 100 mm
Castors Ø 75 mm

Equipment castors
Article number 9808015300



Set of castors, consisting of 4 swivel wheels, including 2 with brake. Complete with installation instructions. Load-bearing capacity of each castor 70 kg.
Construction height 90 mm
Castors Ø 75 mm

Support feet
Article number 9808012900



Vertically adjustable feet (1 set = 4 pieces). Complete with installation material and instructions.

Adjustable construction height approx. 37 - 50 mm

Accessories for control enclosures

Accessories for control enclosures

CC-3000, CC-4000, CC-4000 SL and CC-5000

BERNSTEIN not only offers innovative control enclosures that can be perfectly configured to suit your specific requirements with our comprehensive range of accessories that you will find on the following pages but our system solution service also realises complete enclosure solutions.

The range of accessories covers the following areas:

- **Attachment solutions**
Whether suspended, upright or mobile – we have the right system for any configuration.
- **Interface solutions**
With the interfaces laptops, programming devices, diagnostic facilities, modems etc. can be easily connected to built-in components for servicing purposes. Simply open the cover and connect. Protection class IP65 is retained (cover closed).
- **Keyboard solutions**
Data input devices do not always have to be in the way. We have available excellent solutions for storing such devices and cleverly integrating them in the overall concept while retaining the user-friendly ergonomics of the system.
- **Handle solutions**
The BERNSTEIN range of accessories also includes practical handles to ensure the enclosures are handled safely.
- **Safety solutions**
Your safety is our concern – we therefore offer a range of accessories that help and protect.
- **Heat dissipation solutions**
Heat dissipation is a key problem which we will gladly resolve for you. Take the easy way out and contact us. We have the right enclosures, suitable equipment and the necessary know-how to effectively solve heat dissipation problems.
- **Cable solutions**
It is often necessary to route cables into the enclosure – whether single core or preassembled cables, we have the right solution.
- **Front panel solutions**
The front is the most important side of the enclosure. Here everything must be right and should look exactly as you imagined. Take advantage of our service to help you find the appropriate accessories.

Our comprehensive range of accessories is listed on the following pages.

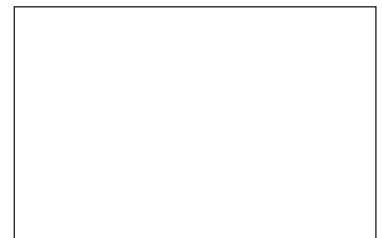
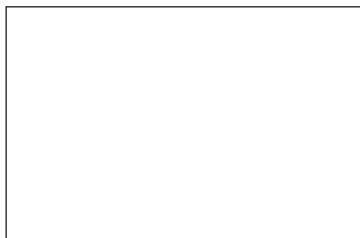
| | | | |
|----------------|--|----------------------------------|---------------------------------|
| Article | Thin Client wall mount bracket – enclosure attachment | Tabletop feet, adjustable | Tabletop feet (StopChoc) |
| Article number | 9805332000 | 9806014000 | 9806500000 |

Accessories



| | | | |
|--------|--|---|--|
| Design | <p>Particularly suitable for mounting an enclosure on safety gate posts that can accept 40, 60 and 80 mm post attachments. The plastic mount is silicone-free. Designed for standard M6 attachment. The maximum load for central mounting is 20 kg. The wall / post attachment, Art. No. 9805333000, is additionally required for a complete system.</p> | <p>Simple plastic tabletop feet for control enclosures; feet can be set upright to adjust enclosure inclination.</p> <p>Installation altitude 48 mm Set of 4 pieces</p> | <p>Vibration-absorbing tabletop feet for control enclosures, ideal for mobile use in close proximity to machines or sensitive electronic equipment.</p> <p>Set of 4 pieces</p> |
|--------|--|---|--|

| | | | |
|----------------|--|--------------------------|--|
| Article | Suspension system covers | | |
| | CS-2000 SL / CS-3000 / CS-3000 neXt | CS-2000 System 80 | |
| Article number | 9806495000 | 9806499000 | |



| | | | |
|--------|---|--|--|
| Design | <p>For closing off unused BERNSTEIN suspension system connection points (Couplings). Finish similar to RAL 9006. Other RAL colours available on request.</p> <p>9806495000 Flange size 60 mm 9806499000 Flange size 80 mm</p> | | |
|--------|---|--|--|

| | | | |
|----------------|------------------------|--|--|
| Article | Carrying handle | | |
| Article number | 9806490000 | | |

Handle solutions



| | | | |
|--------|--|--|--|
| Design | <p>Black carrying handle especially for small enclosures in mobile applications.</p> | | |
|--------|--|--|--|

Accessories for control enclosures

| | | | |
|----------------|-------------------|-------------------|--------------------|
| Article | CC handle | Corner handle set | Positioning handle |
| Article number | see specification | 9806026000 | see specification |

Handle solutions



| | | | |
|--------|---|--------------------------------------|--|
| Design | Straight, anodised aluminium handle. 9808015000 Length 140 mm 9808014900 Length 200 mm 9808014600 Length 350 mm | 2x black foam-coated corner handles. | Anodised, ergonomically designed, formed aluminium positioning handle. 9808015100 Length 250 mm 9808015200 Length 350 mm |
|--------|---|--------------------------------------|--|

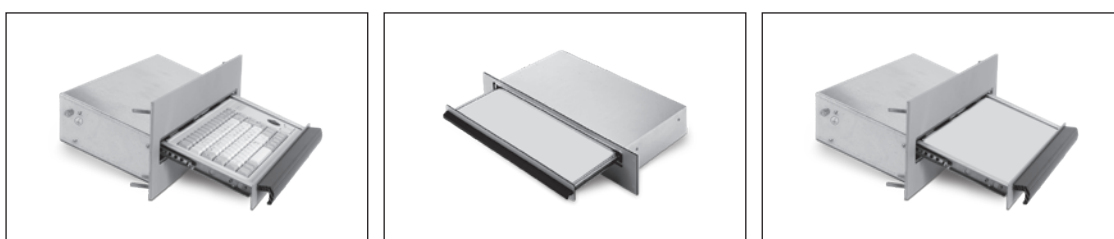
| | | | |
|----------------|----------------|--------------------------|---|
| Article | Keyboard shelf | Fold-down keyboard panel | Keyboard drawer 483 x 89 x 155 mm (19"/2HM) |
| Article number | 9806175000 | 9806488000 | 9806744000 |

Keyboard / support solutions



| | | | |
|--------|---|--|--|
| Design | Sheet metal, finish similar to RAL 9006. 2x M5 holes required in enclosure. Stainless steel version available on request. 495 x 255 mm | Made from coated sheet steel, finish similar to RAL 9006. Dimensions: 483x249x50 mm. IP54 rating when open. | With mounting pin, no lock, IP65 rating when closed. Including German USB keyboard with integrated trackball. Other language-version keyboards and drawer with lock available. |
|--------|---|--|--|

| | | | |
|----------------|--|--|---|
| Article | Keyboard drawer 483 x 134 x 155 mm (19"/3HM) 20° inclination | Keyboard drawer 483 x 89 x 155 mm (19"/2HM) without keyboard | Keyboard drawer 483 x 134 x 155 mm (19"/3HM) 20° inclination without keyboard |
| Article number | 9806745000 | 9286098000 | 9286112000 |



| | | | |
|--------|---|--|--|
| Design | With mounting pin, no lock, IP65 rating when closed. Including German USB keyboard. Other language-version keyboards and drawer with lock available. Keyboard is inclined by 20°. | With mounting pin, no lock, IP65 rating when closed. | With mounting pin, no lock, IP65 rating when closed, without keyboard. |
|--------|---|--|--|

| Article | Interface insert | | Interface insert |
|----------------|------------------|--|------------------|
| Article number | | | 9421311000 |

Interface solutions



| | | | |
|--------|--|--|---|
| Design | 9421300000 2x USB 2.0 Type A shielded 9421284000 2x USB 2.0 Type A with 0.7 m cable and connector | 9421310000 1x Sub-D9 / 1xSub-D25, female / male 9421308000 1x Sub-D9 / 1xSub-D15, female / female | 1x RJ45 / USB BF-A / Sub-D9 Other interface inserts on request |
|--------|--|--|---|

| Article | Interface insert | Interface flap single | double | RJ-45 interface | USB interface |
|----------------|------------------|-----------------------|------------|-----------------|---------------|
| Article number | 9421307000 | 9421283000 | 9421306000 | 9806519000 | 9421319000 |



| | | | | | |
|--------|----------------------------|--|--|--|--|
| Design | Earthed socket outlet 250V | Metal silver-coloured interface cover, various snap-in inserts for modular configurations. Plastic, transparent version and latching on request. 3 mm two-way key or rotary knob. Dimension: 66 x 120 mm Dimension: 131 x 120 mm | | Interfaces with captive dust cap, protection class IP65. Mounted in a 22.5 mm hole in the enclosure or front panel. With connector and cable | |
|--------|----------------------------|--|--|--|--|

| Article | Set of spring nuts | | Mounting brackets | Mounting rail service |
|----------------|--------------------|------------------|-------------------|-----------------------|
| Article number | M4 9806006000 | M5 9806007000 | 9806008000 | On request |

Interior accessories



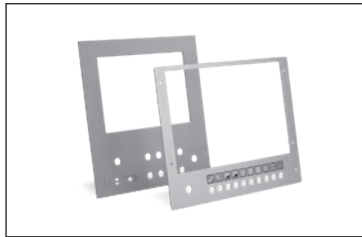
| | | | |
|--------|-----------|--|--|
| Design | Set of 10 | For attaching mounting plates or other built-in components in enclosures. Dimension: 30 x 20 mm for M5 screws Set of 4 including installation material | On request we will cut mounting rails to size for your enclosure (TS32 / TS35 for accepting terminal blocks). Please contact us. |
|--------|-----------|--|--|

Accessories for control enclosures

| | | | |
|----------------|---|---|--|
| Article | Earthing kit, door and externally mounted front panel | Earthing kit, door and externally mounted front panel | Set of clamping elements (PC477/577/677) |
| Article number | 9806507000 | 9806506000 | 9806324000 |
| |  |  |  |
| Design | Copper strap | Additional earthing kit for earthing externally mounted front panels or doors (green / yellow). | Set of 6 clamping elements for direct installation of Siemens Simatic Panel PC 477/577/677 |
| Article | Front panel seal | Front panel mounting kit CC-3000 / CC-4000 | Front panel mounting kit CC-5000 neXt |
| Article number | 9806373000 | 9806925000 | 9806893000 |
| |  |  |  |
| Design | 2 m front panel flat seal, 6 x 2 mm, grey | For internal / external mounting of the front panel 10 mounting elements | For internal fixing of the front panel 10 mounting elements |
| Article | Door arrester | | |
| Article number | 9806503000 | | |
| |  | | |
| Design | For locking door in open position and for limiting opening range (approx.100°) for CC-3000 / CC-4000. | | |

| | | | |
|----------------|---------------------------------|------------------------------------|------------------------------|
| Article | Front panel preparation service | Crystal clear makrolon front cover | TFT monitor mounting bracket |
| Article number | on request | on request | 9806679000 |

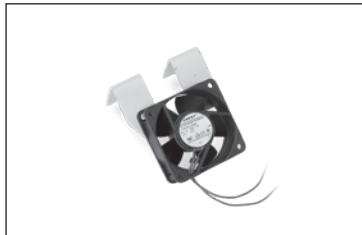
Machining service / special solutions



| | | | |
|--------|--|---|--|
| Design | We machine aluminium front and rear panels individually to suit your specific requirements. Engraving or various printing processes also possible on request. Simply provide us with a drawing with your requirements. | Please contact us regarding the protection of a commercially available monitor that is secured in the enclosure by means of a TFT monitor mounting bracket. | Commercially available displays can be easily secured in modern control enclosures, thus encapsulating them in a way that meets industrial standards. For display, pivotable with Vesa adapters 75 or 100 (15" to 20"). |
|--------|--|---|--|

| | | | |
|----------------|--------------------------|-----------------------|--|
| Article | Fan mounting bracket set | Filter fan set PF1000 | Air conditioner |
| Article number | 9806491000 | 9806492000 | 230 V, 320 W, L35L35 230 V, 400 W, L35L35 9421279000 9421276000 |

Heat dissipation solutions



| | | | |
|--------|--|---|---|
| Design | Set of 2 brackets for axial or radial fan, RAL 7035. | 230 V filter fan + outlet filter 24 m³/h, IP54 Dimension: 109 x 109 x 49/19 mm 1 pc per unit 12 V / 24 V / 48 V on request | 9421279000 270 x 520 x 110 mm, 13.3 kg 9421276000 520 x 340 x 110 mm, 14.8 kg further cooling capacities on request |
|--------|--|---|---|

BERNSTEIN Services

New system integration approaches such as the installation and preassembly of:

- Power supply systems
- Operating and control elements
- Membrane keypads
- Displays, power supply and data cables
- I/O assemblies
- Ethernet components
- PLC/IPC solutions of all renowned manufacturers

Services:

- Wiring
- Worked-out circuit diagram
- Installation of components
- Acceptance test

Checklist Enclosure CC-5000 neXt

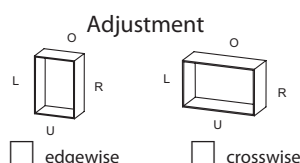
| | | |
|--|-----------------|---------------------|
| Customer: | Customer No.: * | Article No.: * |
| Address: | | |
| Telephone: | E-mail: | |
| Contact person: | Department: | |
| <input type="checkbox"/> Pricing enquiry | Target price: | Quantity: |
| <input type="checkbox"/> Enquiry | Enquiry No.: * | Annual requirement: |
| <input type="checkbox"/> Order | KPA: * | Delivery date: |

1 Checklist for:



- ☐ Standard
☐ Console encl., upper part
☐ Console encl., lower part

please fill in checklist for console versions



Anticipated installation weight: _____ kg

2 Dimensions (mm)

Installation area (X x Y)

_____ x _____

Enclosure dimensions (W x H)

_____ x _____

= X + 152 = Y + 91

Front panel dimensions (e x f)

with airflow humidity of 0.5 mm

_____ x _____

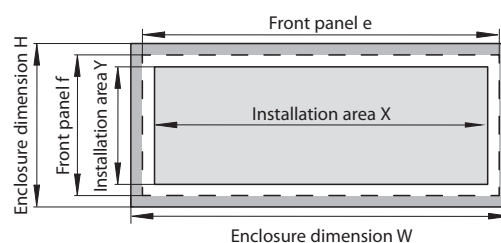
= X + 20 = Y + 21

Rear panel dimensions b x h

with airflow humidity of 1 mm

_____ x _____

= X + 107 = Y + 78

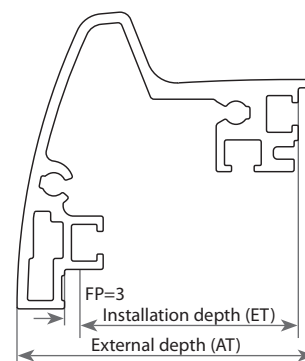


External dimensions min. 277 x 392 mm, max. 1000 x 1000 mm (W x H)

3 Profile selection

Select 1 enclosure section (optional, add up to a maximum of 1 door section!)

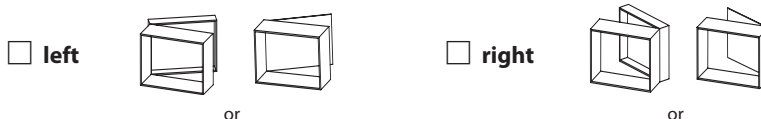
| External depth 0 mm | Front door | Enclosure section (fixed area!) | Rear door |
|-------------------------------------|------------------------------|---------------------------------|------------------------------|
| Choice of desired external depth AT | <input type="checkbox"/> 75 | <input type="checkbox"/> 75 | <input type="checkbox"/> 75 |
| | <input type="checkbox"/> 125 | <input type="checkbox"/> 125 | <input type="checkbox"/> 125 |
| | <input type="checkbox"/> 185 | <input type="checkbox"/> 185 | <input type="checkbox"/> 185 |



| Information about section depth dimensions | | | | | | | | | | |
|--|-----|-----|-----|-------|-----|--------|---------|--------|---------|---------|
| Installation depth ET (mm) | 53 | 103 | 114 | 163 | 164 | 214 | 224 | 274 | 334 | |
| External depth AT (mm) | 75 | 125 | 150 | 185 | 200 | 250 | 260 | 310 | 370 | |
| Basis section | 75 | 75 | | 75+75 | | 75+125 | | | | |
| | 125 | | 125 | | | | 125+125 | | | |
| | 185 | | | | 185 | | | 185+75 | 185+125 | 185+185 |

Section combination: Hinges with BERNSTEIN logo (Ø 20 mm)

4 Door mounting



5 Lock

Square (mm): ☐ 6 ☐ 7 ☐ 8 ☐ T-handle without lock**
 Triangle (mm): ☐ 7 ☐ 8 ☐ 6,5 (CNOMO) ☐ T-handle with lock**
 Two-way bit (mm): ☐ 3 Standard ☐ 5 ☐ E1 (without key)
 Daimler Benz: ☐ ☐ T-handle E1 (without key)**
 Special lock _____ (** = not for 75 section)

6 Front panel *Internally mounted*

- ☐ none
☐ mounted
☐ Front panel mounting kit

Rear panel

Enclosure with door section

- ☐ none
☐ mounted

Rear panel

Enclosure without door section

- ☐ Standard hinge (with BERNSTEIN logo)
☐ screw-mounted (externally)
☐ VESA attachment to the rear
(screw-fixed rear panel); (rear panel thickness of 4 mm, possible at an installation area height of Y > 500 mm)

7 Partition

- ☐ not mounted
☐ vertical Qty: _____
☐ horizontal Qty: _____
 Partition height 28 mm.
 Leave 1 mm space between front panel and partition.
 Partition protrudes 3.7 mm beyond the front panel.

Operator panel

- 1st Operator panel (w x h) _____ x _____ ☐ not mounted
 2nd Operator panel (w x h) _____ x _____ ☐ mounted
 3rd Operator panel (w x h) _____ x _____

8 Keyboard drawer *(at 155 mm installation depth)* *(interlock via magnetic lock)*

- ☐ without keyboard, 0°, Height 89 mm
☐ without keyboard, 20°, Height 134 mm
☐ with keyboard, 0°, USB, Height 89 mm
☐ with keyboard, 20°, USB, Height 134 mm
☐ to customer specification (description under 11)
☐ secured via lock (optional)

- ☐ none

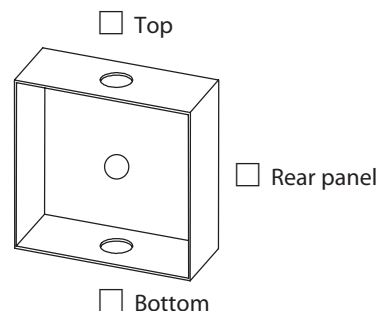
Keyboard configuration

- ☐ German (Standard)
☐ English (GB)
☐ English (USA)
☐ Other language: _____

9 Preparation for susp. system

| | Com- ponent selection | 75 | 125 | 185 |
|---|-----------------------------|----|-----|-----|
| CS-3000 neXt adapter small | <input type="checkbox"/> | | | |
| Flange coupling standard* | <input type="checkbox"/> | | | |
| Flange coupling system 80 | <input type="checkbox"/> | | | |
| Turn/tilt coupling | <input type="checkbox"/> | | | |
| Tilt adapter | <input type="checkbox"/> | | | |
| CS-2000 SL base coupling | <input type="checkbox"/> | | | |
| Coupling head | <input type="checkbox"/> | | | |
| Coupling head, single | <input type="checkbox"/> | | | |
| Automotive adapter | <input type="checkbox"/> | | | |
| WS coupling | <input type="checkbox"/> | | | |
| CS-3000/48 | <input type="checkbox"/> | | | |
| VESA-100 <i>(Rear panel attachment)</i> | <input type="checkbox"/> | | | |
| Preparation on customer request (see below) | <input type="checkbox"/> | | | |

Entry/support position



- ☐ no preparation
☐ Susp. Syst. cover, top
☐ Susp. Syst. cover, bottom

☒ = Component not possible

* CS-3000 neXt / CS-3000 / CS-2000 SL/50/60

** CS-3000 neXt/ CS-3000 with adapter (narrow sect. 1015300011)

10 Surface finish

Standard

- Horizontal sections ☐ anodised, natural
 Vertical sections ☐ anodised, natural
 Corner modules ☐ RAL 9006 Standard
 Front panel ☐ anodised, natural
 Rear panel ☐ anodised, natural
 Partition ☐ anodised, natural

Special colour RAL

- ☐ _____
☐ _____
☐ _____
☐ _____
☐ _____
☐ _____

11 Accessories, Remarks

| | | | | |
|--|------|-----|-----|--|
| <input type="checkbox"/> Annexes number of _____ | VKF* | TA* | AV* | |
| <input type="checkbox"/> No Annexes | | | | |

* Completed by BERNSTEIN

Checklist Console Version CC-5000 neXt

1 Checklist for:



Console attachment

Article No. Console Enclosure, upper part *

Article No. Console Enclosure, lower part *

2 Type of console connection Only one choice is possible

| Console connector section | Console connector | Console coupling |
|---------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | | |

3 Preparation for suspension system in the console connector section ★

Only one choice is possible

- ☐ preparation
☐ no preparation
☐ = Component not possible

| | CS-2000 SL45/60, CS-3000, CS-3000 neXt | CS-2000 Sys80 |
|---------------------------------|--|---------------|
| Coupling or Elbow coupling | <input type="checkbox"/> | |
| New adapter flange (Automotive) | | |

4 Surface finish

- Standard**
 Console connector section (section) ☐ anodised, natural
 Console connector section (end caps) ☐ RAL 9006 Standard
 Console connector ☐ RAL 9006 Standard
 Console coupling ☐ RAL 9006 Standard

Special colour RAL

- ☐ _____
☐ _____
☐ _____
☐ _____

5 Accessories, Remarks

| | | | | |
|--|------|-----|-----|--|
| <input type="checkbox"/> Annexes number of _____ | VKF* | TA* | AV* | |
| <input type="checkbox"/> No Annexes | | | | |

Notes

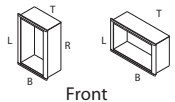
Checklist Enclosure CC-4000

| | | | |
|--|----------------|--------------|--------------------|
| Customer | *Product group | *Code | *Article number |
| Address | | Customer No. | |
| Telephone | Telefax | Industry | |
| Contact person | | Department | |
| <input type="checkbox"/> Pricing enquiry | | | |
| | | Target price | Quantity |
| <input type="checkbox"/> Enquiry | | | |
| | | *Enquiry No. | Annual requirement |
| <input type="checkbox"/> Order | | | |

Delivery date

1 Enclosure

- ☐ **Standard**
☐ Console encl., upper section
☐ Console encl., lower section



Anticipated installation weight
 _____ kg

2 Dimensions (mm)

External encl. dimensions

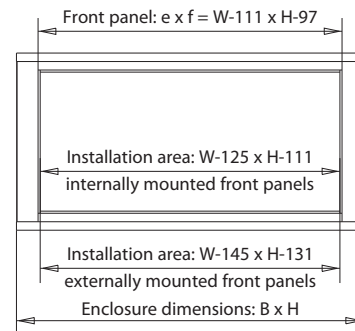
Width x height (W x H) _____ X _____

19" Enclosure W x H _____ X _____

H = (n x HM) + 97 - 1 HM = 44,45 HM = _____

***Front panel dim.** (e x f) _____ X _____
 e x f = W - 111 x H - 97

****Rear panel dim.** (w x h) _____ X _____
 W x H = W - 61 x H - 47
 W x H = W - 63 x H - 47 (hinged rear panel)



3 Type of section

☒ Section without ribbing

4 Enclosure depth, ext.

Frame section

with 3 mm deep FP support
☐ 140 ☐ 200 ☐ 290

with 6,5 mm deep FP support
☐ 52 ☐ 80

Extension

☐ 68 ☐ 128 ☐ 228 ☐ 128 ☐ 68

☐ 68 ☐ 128 ☐ 228 ☐ 128 ☐ 68

Internal depth for internally mounted FP with 3 mm deep FP support

When using 6,5 mm FP support, the internal depth is reduced by 3,5 mm

| Sec- tion | 52 | 80 | 120 | 140 | 148 | 180 | 188 | 200 | 208 | 216 | 248 | 268 | 276 | 280 | 290 | 308 | 328 | 336 | 348 | 358 | 368 | 376 | 396 | 408 | 418 | 426 | 428 | 436 | 456 | 486 | 496 | 518 | A** | |
|--------------|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------------|
| | 38 | 66 | 106 | 126 | 134 | 166 | 174 | 186 | 194 | 202 | 234 | 254 | 262 | 266 | 276 | 294 | 314 | 322 | 334 | 344 | 354 | 362 | 382 | 394 | 404 | 412 | 414 | 422 | 442 | 472 | 482 | 504 | I** | |
| 52 | ● | | ● | | | ● | ● | | | | ● | | | ● | | ● | | | ● | | | | | ● | | | | | | | | | | Expansion |
| 80 | | ● | | | ● | | | | ◆ | ● | | | ◆ | | | ◆ | | ■ | | | | ● | | | | | | ◆ | | | | | | |
| 140 | | | | ● | | | | | ● | | | ● | ● | | | | | ● | | | ● | | ● | | | | | ● | | | | ● | | |
| 200 | | | | | | | | ● | | | | ◆ | | | | | ● | ◆ | | | | | ◆ | | | | ● | | | ● | | ◆ | | |
| 290 | | | | | | | | | | | | | | | ● | | | | | ● | | | | | ● | ● | | | | | ● | ● | | |
| 68 | | | ● | | ● | | ● | | ● | ● | ● | ◆ | ◆ | ● | | | | ◆ | ● | ● | ● | | ● | ◆ | | | ● | | ● | | ● | ◆ | | Frame section |
| 68 | | | | | | ● | ● | | | ● | | | ● | | | | | ◆ | | | | | | | | ● | | | | | | | | |
| 128 | | | | | | ● | | | ◆ | | ● | ● | ◆ | | | ● | ● | ■ | ● | | | | ◆ | ● | ● | ● | | | ◆ | ● | ● | ● | | |
| 128 | | | | | | | | | | | | | | | | ● | | ■ | | | | | ● | | | | | | | ● | | | | |
| 228 | | | | | | | | | | | | | | ● | | ◆ | | | ● | | ● | ● | | ● | | | ● | ◆ | ● | | | ◆ | ● | ● |

** A = External depth, I = Internal depth

Internal depth is increased by 6 mm for external mounting.

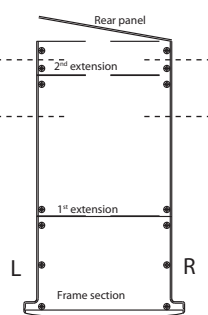
◆ = Alternative combination

* Completed by BERNSTEIN AG

5 Door mount. (susp. syst.)

☐ Automotive version

| | | | |
|--|--------------------------|--------------------------|--|
| <input type="checkbox"/> Rear panel | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> 2 nd extension | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> 2 nd extension |
| <input type="checkbox"/> 1 st extension | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> 1 st extension |
| Section/fixed rear panel | | | <input type="checkbox"/> Fr. sect. (from 140) |
| | | | Suspension syst. position |



6 Partition

☐ not mount.

☐ vertical

☐ mount.on right

☐ horizontal

☐ bottom mount.

Qty _____

☐ mount. on left

Qty _____

☐ top mounted

☐ Operator panel, anodis., int. mount.
Dim.: g x h (g = Width, h = Height)

☐ 1st operator panel _____ x _____

☐ 2nd operator panel _____ x _____

☐ 3rd operator panel _____ x _____

(Important! Partition height for frame section with 3 mm FP support = 20 mm/front panel support 6.5 mm = 25 mm)

7 Front panel

☐ none

Rear panel

☐ none

with ☐ 3 mm, int. mount.

☐ ext. screw-mounted

☐ 3 mm, ext. mount.

☐ heat sink rear panel

☐ standard hinge

☐ screw-moun. rear pan. art hinge

Access., front panel

☐ for INTERNALLY mounted panels: seal strip and mounting material

☐ for EXTERNALLY mounted panels: seal strip/washers/nuts M5

☐ 19" installation kit (9806232000): screws and captive nuts M6

☐ set of clamping elements for SIMATIC Panel PC

Keyboard drawer from 180 mm depth

(2HM = 89 mm, 3HM = 134 mm)

☐ without keyboard, 0°, without lock, 2HM

☐ without keyboard, 20°, without lock, 3HM

☐ with keyboard, 0°, without lock, Germ., PS2, 2HM

☐ with keyboard, 20°, without lock, Germ., PS2, 3HM

☐ to customer specification (description under 13)

8 Lock

Square (mm):

☐ 6

☐ 7

☐ 8 (Standard)

Triangle (mm):

☐ 7

☐ 8

Two-way bit (mm):

☐ 3

☐ 5

☐ Daimler Benz

☐ T-handle without lock

☐ T-handle with lock

☐ Customer specification

9 Preparation for susp. syst.

Type of coupling

☐ Turn/tilt coupling (from section 128)

☐ Flange (see System)

☐ Tilt adapter (from section 200)

☐ Coupling head CC-4000

☐ Console connector

☐ Automotive adapter

☐ KDL 16/4

☐ No

☐ WS coupling

☐ CS-3000/48

☐ Special preparation
to customer specificat.

☐ KDL 24/5

only with automotive adapter without Susp. Syst. preparation (KDL = cable gland strip)

☐ Grommet 3–4 mm

_____ Qty

☐ Grommet 6–7 mm

_____ Qty

System

☐ SL (only section 80)

☐ CS-3000 (fr. sect. 128)

☐ 80 (from section 128)

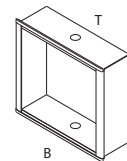
☐ Susp. Syst. cover, top

☐ Susp. Syst. cover, bottom

☐ Susp. Syst. in section _____

☐ Top

☐ Bottom



10 Surface finish

Horizontal sections:

Vertical sections:

Partition:

Front panels:

Rear panels:

Standard

☐ RAL 9006, powder-coated

☐ anodised, natural

☐ RAL 9006, powder-coated

☐ anodised, natural

☐ anodised, natural

Customer specification

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

11 ☐ Automotive version: double GK seal, braided earthing strap, front door arrester

12 ☐ Climate control data for checking heat dissipation over enclosure surface

_____ (Pv) total installed power loss

_____ (°C) ambient temperature at enclosure location

_____ (°C) max. temperature, installation (e.g. PC)

_____ (V) power supply for active cooling

13 Accessories, Remarks

☐ annexes

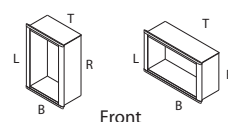
☐ no annexes

Checklist Enclosure CC-4000 SL

| | | | |
|--|----------------|----------|--------------------|
| Customer | *Product group | *Code | *Article number |
| Address | | | Customer No. |
| Telephone | Telefax | Industry | |
| Contact person | | | Department |
| <input type="checkbox"/> Pricing enquiry | | | |
| Target price | | | Quantity |
| <input type="checkbox"/> Enquiry | | | |
| *Enquiry No. | | | Annual requirement |
| <input type="checkbox"/> Order | | | |
| Delivery date | | | |

1 Enclosure

- ☐ Standard
☐ Console enclosure, upper section
☐ Console enclosure, lower section



Anticipated installation weight _____ kg

2 Dimensions (mm)

External enclosure dimensions

Width x height (w x h) _____ x _____

19" Enclosure

$H = (n \times HM) + 73 - 1 \text{ HM} = 44,45$ HM = _____

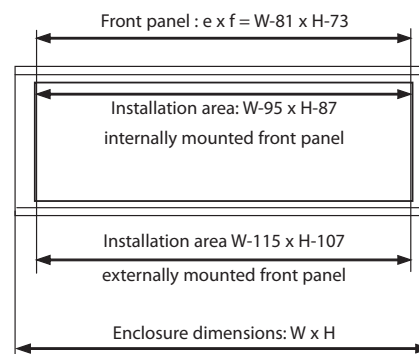
Front panel dim. (e x f)

$e \times f = B - 81 \times H - 73$ _____ x _____

Rear panel dim. (w x h)

$w \times h = W - 31 \times H - 23$ _____ x _____

$w \times h = W - 33 \times H - 23$ (hinged rear panel)



3 Type of section

- ☒ Section without ribbing

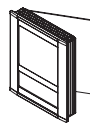
4 Enclosure depth, ext. (frame section with 6.5 mm deep FP support)

- ☐ 55 ☐ 99

| Section | 55 | 99 | External depth (mm) |
|---------|----|----|---------------------|
| | 35 | 79 | Internal depth (mm) |

(Internal depth increased by 6 mm for external mounting)

5 Door mounting



Door mounting, **left**

Door mounting, **right**

- ☐ Fixed rear panel

- ☐ Standard hinge

- ☐ Standard hinge

- ☐ Screw-mount. rear pan. articul. hinge

- ☐ Screw-mounted rear panel articulated hinge

* Completed by BERNSTEIN AG

6 Partition (Important! Partition height for frame section = 25 mm)

☐ not mounted(Standard)

☐ vertical

_____ Qty.

☐ waagerecht

_____ Qty.

☐ mounted on right

☐ mounted on left

☐ bottom mounted

☐ top mounted

☐ operator panel anodised, natural
(not mounted for inside) s = 3 mm

Dimension: g x h
(g = Width, h = Height)

1st operator control pan. _____ X _____

2nd operator control pan. _____ X _____

7 Front panel

☐ none

with: ☐ 3 mm, int. mounted

☐ 3 mm, ext. mounted

Rear panel

☐ none

with: ☐ 3 mm, externally screw-mount.

☐ 3 mm, hinged

Accessories, front panel

☐ for INTERNALLY mounted panels: seal strip and mounting material

☐ for EXTERNALLY mounted panels: seal strip/washers/nuts M5

☐ 19" installation kit (9806232000): screws and captive nuts M6

☐ set of clamping elements for SIMATIC Panel PC 670/870

8 Lock

Square (mm): ☐ 6

Triangle (mm): ☐ 7

Two-way bit (mm): ☐ 3

Daimler Benz: ☐

☐ 7

☐ 8

☐ 5

☐ 8 (Standard)

☐ T-handle without lock

☐ E1

☐ Special lock/customer specification

9 Preparation for suspension syst. ☐ No

Type of coupling/system

☐ SL flange / turn/tilt coupling (only section 99)

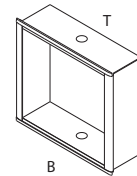
☐ Coupling head CC-4000

☐ Special preparation to customer specification

☐ Top

Side:

☐ Bottom



10 Surface finish

Horizontal sections:

Vertical sections:

Partition:

Front panels:

Rear panels:

Standard

☐ RAL 9006, powder-coated

☐ anodised, natural

☐ RAL 9006, powder-coated

☐ anodised, natural

☐ anodised, natural

Customer specification

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

11 EMV Version (electromagnetic compatibility)

☐ Conductive connection between enclosure body, door, FP and RP

☐ Automotive version; braided earthing strap

☐ Climate control data for checking heat dissipation over enclosure surface

_____ (PV) total installed power loss

_____ (°C) ambient temperature at enclosure location

_____ (°C) max. temperature of installation (e.g. PC)

_____ (V) power supply for active cooling

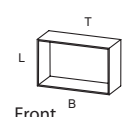
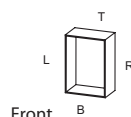
14 Accessories, Remarks ☐ annexes ☐ no annexes

Checklist Enclosure CC-3000

| | | | |
|--|----------------|--------------|--------------------|
| Customer | *Product group | *Code | *Article number |
| Address | | Customer No. | |
| Telephone | Telefax | Industry | |
| Contact person | | Department | |
| <input type="checkbox"/> Pricing enquiry | | | |
| | | Target price | Quantity |
| <input type="checkbox"/> Enquiry | | | |
| | | *Enquiry No. | Annual requirement |
| <input type="checkbox"/> Order | | | |
| Delivery date | | | |

1 Enclosure

- ☐ Standard
☐ Console enclosure, upper section
☐ Console enclosure, lower section



Anticipated installation weight _____ kg

2 Dimensions (mm) (always referred to the standard section)

External enclosure dimensions

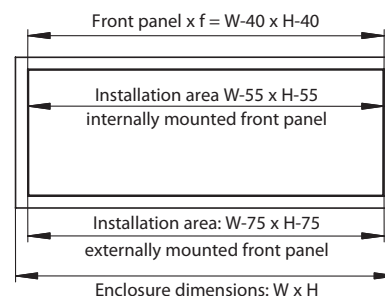
Width x height (W x H) _____ x _____

Front panel dimensions (e x f)

e x f = W - 40 x H - 40 _____ x _____

Rear panel dimensions W x H

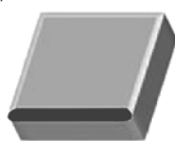
Screw-fixed rear panel: W x H = W - 7 x H - 7 _____ x _____
 Hinged rear panel: W x H = W - 9 x H - 9 _____ x _____



3 Front design (handle selection)



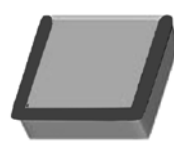
☐
None



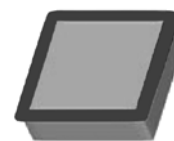
☐
Bottom



☐
Left + right



☐
Left + right + bottom



☐
All-round

(Important! The external enclosure dimensions increase by 16.5 mm on the side where a handle strip is selected)

4 Enclosure without door section

Enclosure depth

External depth

☐ 120 mm

☐ 200 mm

Front panel position

Installation depth

Internal ☐ 103 mm

External ☐ 111 mm

Internal ☐ 183 mm

External ☐ 191 mm

Rear panel position

Screw-fixed or hinged

☐ Screw-fixed

☐ With standard hinge

☐ With screw-mounted rear panel hinge

5 Enclosure with door section 55 (FP = Front panel, RP = Rear panel)

Front door or Rear door
☐ 55 + 120
☐ 55 + 200
 External articulated hinges

☐ 120 + 55
☐ 200 + 55

FP and RP internal
☐ Installation depth 149 mm
☐ Installation depth 229 mm

FP internal and RP external
☐ Installation depth 157 mm
☐ Installation depth 237 mm

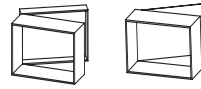
FP external and RP internal
☐ Installation depth 157 mm
☐ Installation depth 237 mm

FP and RP external
☐ Installation depth 166 mm
☐ Installation depth 246 mm

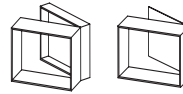
* Completed by BERNSTEIN AG

6 Door mounting

☐ Left



or



or

☐ Right

7 Lock

Square (mm): ☐ 6

☐ 7

☐ 8 (Standard)

☐ T-handle without lock

Triangle (mm): ☐ 7

☐ 8

☐ 6,5 (CNOMO)

☐ T-handle with lock

Two-way bit (mm): ☐ 3

☐ 5

☐ E1 (without key)

Daimler Benz: ☐

☐ Special lock/customer specification

☐ T-handle E1 (without key)

8 Front panel

☐ None

☐ With

Keyboard drawer

from 175 mm depth

(2HE = 89 mm, 3HE = 134 mm)

☐ Without keyboard, 0°, without lock, 2HM

19" Installation kit _____ Qty.

☐ Without keyboard, 20°, without lock, 3HM

☐ Clamping element for Simatic

☐ With keyboard, 0°, without lock, German, PS2, 2HM

☐ With keyboard, 20°, without lock, German, PS2, 3HM

☐ To customer specification (description under Point 14)

9 Rear panel

☐ None

☐ With

10 Partition (partition height 13 mm)

☐ Vertical

_____ Qty.

☐ Not mounted (standard)

☐ Mounted on right

☐ Mounted on left

☐ Horizontal

_____ Qty.

☐ unmounted (standard)

☐ Bottom mounted

☐ Top mounted

11 Partial front panels

☐ none

1st operator panel: _____ Width x _____ Height

☐ Not mounted

☐ INTERNALLY mounted

☐ EXTERNALLY mounted _____ (Art. No. BP)

2nd operator panel: _____ Width x _____ Height

☐ Not mounted

☐ INTERNALLY mounted

☐ EXTERNALLY mounted _____ (Art. No. BP)

12 Preparation for suspension system ☐ None

☐ Standard preparation (flange SL/CS-3000)

☐ Turn/tilt coupling

☐ Tilt adapter (only section 200)

☐ Flange coupling 80 (only section 200)

☐ Console connector

☐ Automotive adapter

☐ WS coupling

☐ CS-3000/48

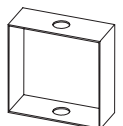
☐ Special preparation to

customer specification (see below)

☐ Top

Side

☐ Bottom



☐ Susp. S. cover, top ☐ Susp. S. cover, bottom

13 Surface finish

Basic sections:

Door sections:

Corner modules/end caps:

Partition:

Front panels:

Rear panels:

Standard

☐ Anodised, natural

☐ Anodised, natural

☐ RAL 9006, powder-coated

☐ Anodised, natural

☐ Anodised, natural

☐ Anodised, natural

Customer specification

☐ _____

☐ _____

☐ _____

☐ _____

Article number FP: _____

Article number RW: _____

14 Accessories, Remarks (included in delivery specification: key (except E1 lock) and earthing kit)

☐ KDL 16/4

☐ KDL 24/5

☐ Grommet 3–4 mm

☐ Grommet 6–7 mm

☐ Dummy grommet

Only with automotive adapter or without Susp. Sys. preparation (KDL = cable gland strip)

_____ Qty.

_____ Qty.

_____ Qty.

Additionally: _____

☐ Annexes

Slsmn. _____ TAV _____ TAV _____

☐ No Annexes

Free-standing column CS-4000^{neXt}

Flexible concept as console or column configuration

The new suspension system CS-4000 neXt ideally combines ergonomic visualisation and optimum integration of operating and input devices.

The console and column version design offers individual solutions for customer specific applications.

In contrast to traditional suspension system visualisation solutions with individual screens or IPCs, the CS-4000 neXt fulfills the requirements of the Machinery Directive through the integration of emergency stop devices.

Product features

- High protection class IP65 at area of closed column chamber
- Internal cable routing
- IPC and keyboard shelf holder can be positioned individually
- IPC holder with graduated tilt control
- Optional integrated control elements (to fulfil the Machine Directive 2006/42/EG)
- Column of high-quality extruded aluminium sections (naturally anodised, 2-chamber column)
- Customer-specific length of the column possible

Scopes of application

- Production lines in the automotive industry
- Plant and machine construction with decentralised controlling concept
- Decentralised display or HMI positioning

CS-4000^{neXt}

Console version

Column version



- ① Column
- ② Slider or mounting element
- ③ IPC with holder: Mounting height variable, graduated tilt control
- ④ Push button cover for control elements
- ⑤ Keyboard shelf (pull-out mousepad is optional)
- ⑥ Cable conduit cover (access through open column chamber)
- ⑦ Base – fixed or rotatable

Extensive accessories see on page 113

Free-standing column CS-4000~~next~~

The compact console version



Fixed tilt angle

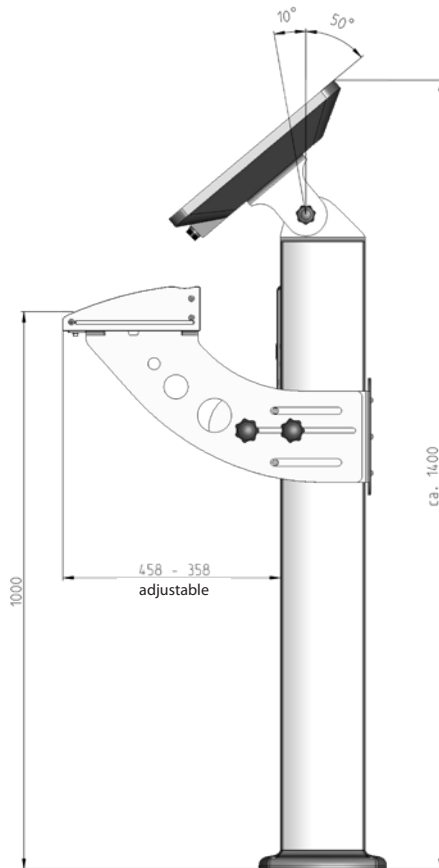
- Fixed tilt angle of 35°
- Suitable for VESA 75/100, 48 mm round tube (customer specific attachment on request)



Tilt adapter flex for console column

- For the adjustment of the IPC tilt angle for console configurations
- Inclination in 5° steps adjustable from 0° to 60°
- Star grip for locking the selected position
- Suitable for VESA 75/100, 48 mm round tube (customer specific attachment on request)
- Optional gaiter for IPC with open connection area

Ergonomic measurements according to DIN 33402-2

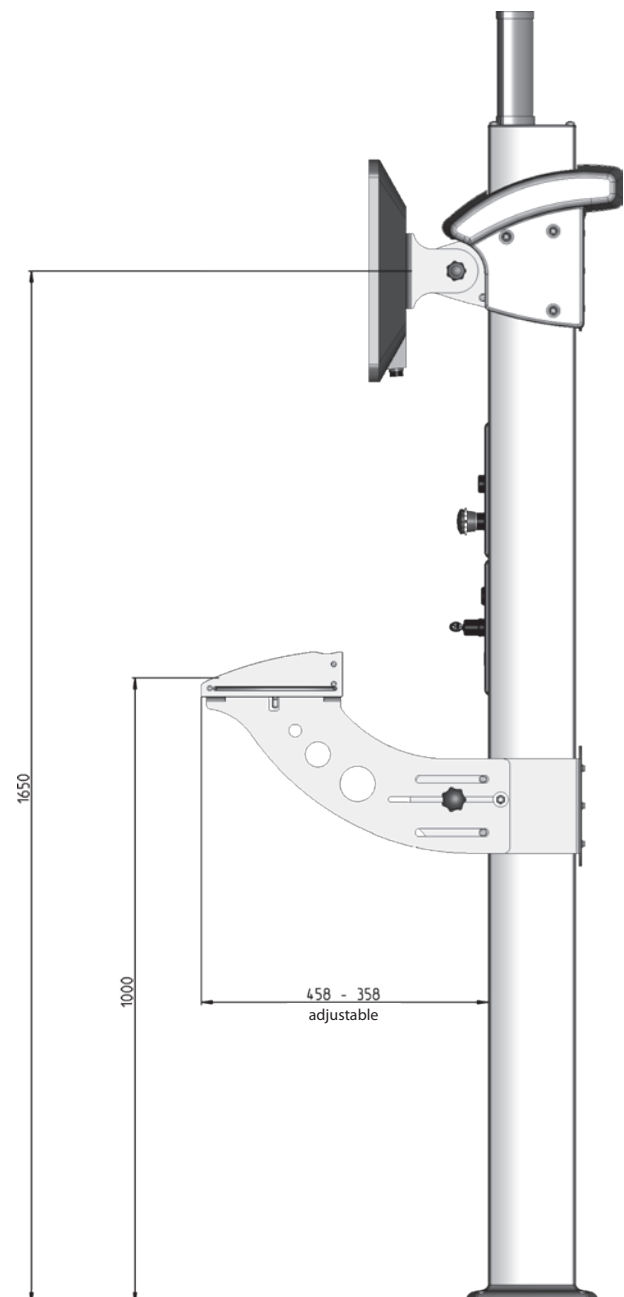


Console version

- Max. height 1350 mm for 35°
- Direct assembly of the IPC on tilt adapter
- Inclination in 5° steps adjustable from 0° to 60°
- Keyboard height (standard value 1,000–1,100 mm)
 - Bottom edge of keyboard 950–1,100 mm
 - Corresponding fixing position of the mounting element / slider

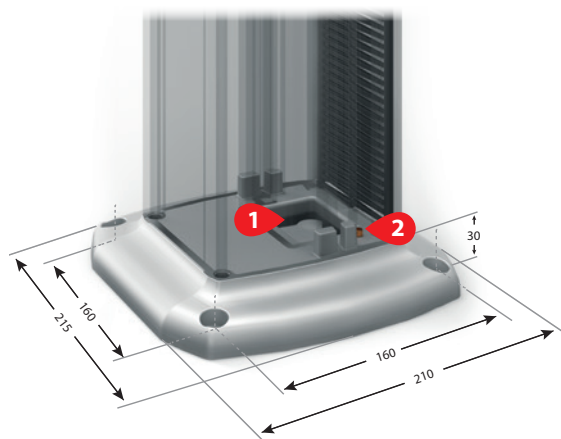
Column version

- Visualisation height (standard value 1,650 mm)
 - Centre of the screen $1,650 \pm 50$ mm
 - Corresponding fixing position of the mounting element / slider
- Desk area height (standard value 1,000 - 1,100 mm)
 - Lower edge of the keyboard 950 - 1,100 mm
 - Corresponding fixing position of the mounting element / slider



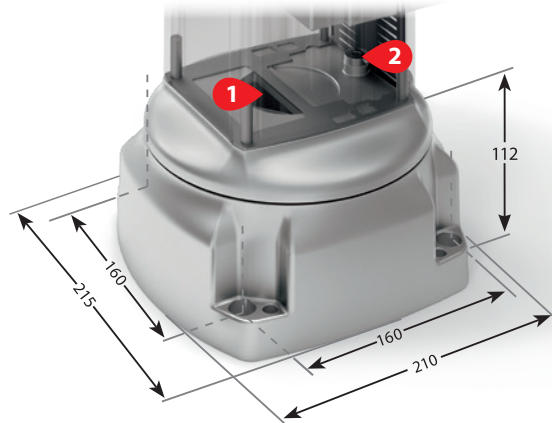
Free-standing column CS-4000~~next~~

Base plate versions



Fixed base plate

- Cable entry into the open column chamber (1)
- Connection for potential equalisation (2)
- Optionally supplied with levelling adjustment screws

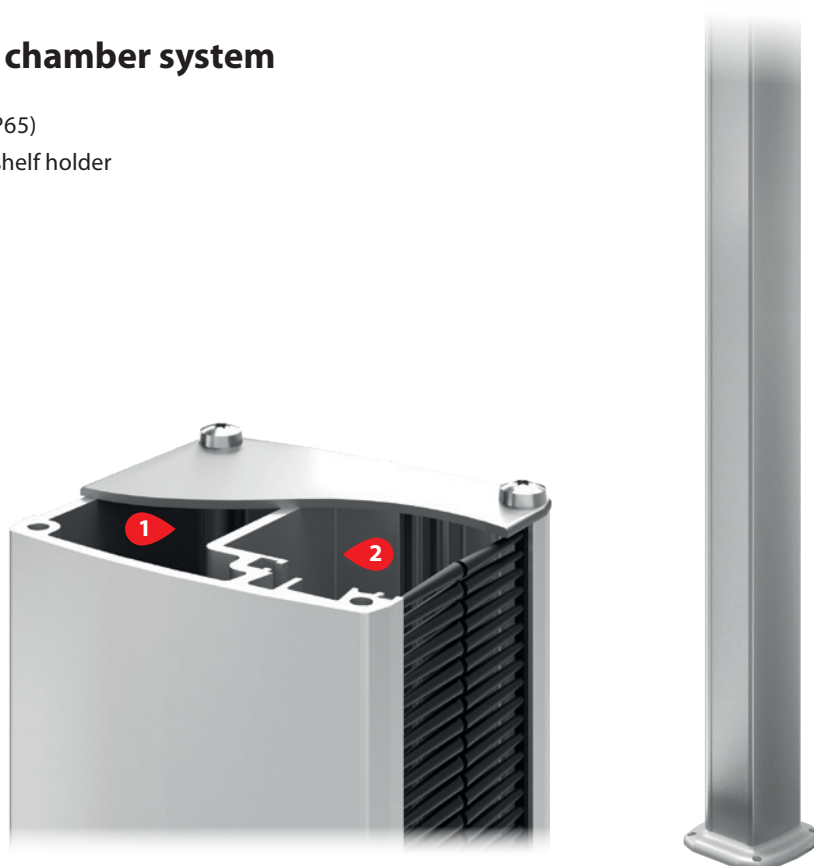
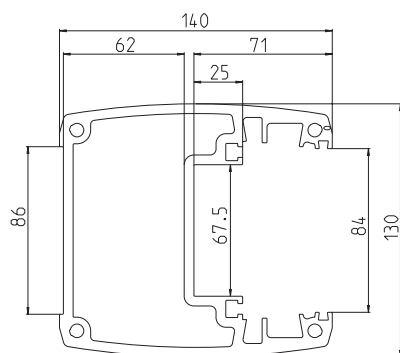


Rotatable base

- Angle of rotation 300° with limit stop
- Protection degree IP65
- Installation area for mounting the cable entry system (e.g. Icotek KEL, Contaclip KDSClick) for cable entry into the closed column chamber (1)
- Connection for potential equalisation (2)
- Optionally supplied with levelling adjustment screws

Aluminium column with double chamber system

- Closed column chamber (1) (Protection degree IP65)
- Open column chamber (2) for IPC and keyboard shelf holder positioning and cable routing
- Cable routing via open column chamber
- Open column chamber (back side) optically closed through brush strip



Slider Individual height adjustment

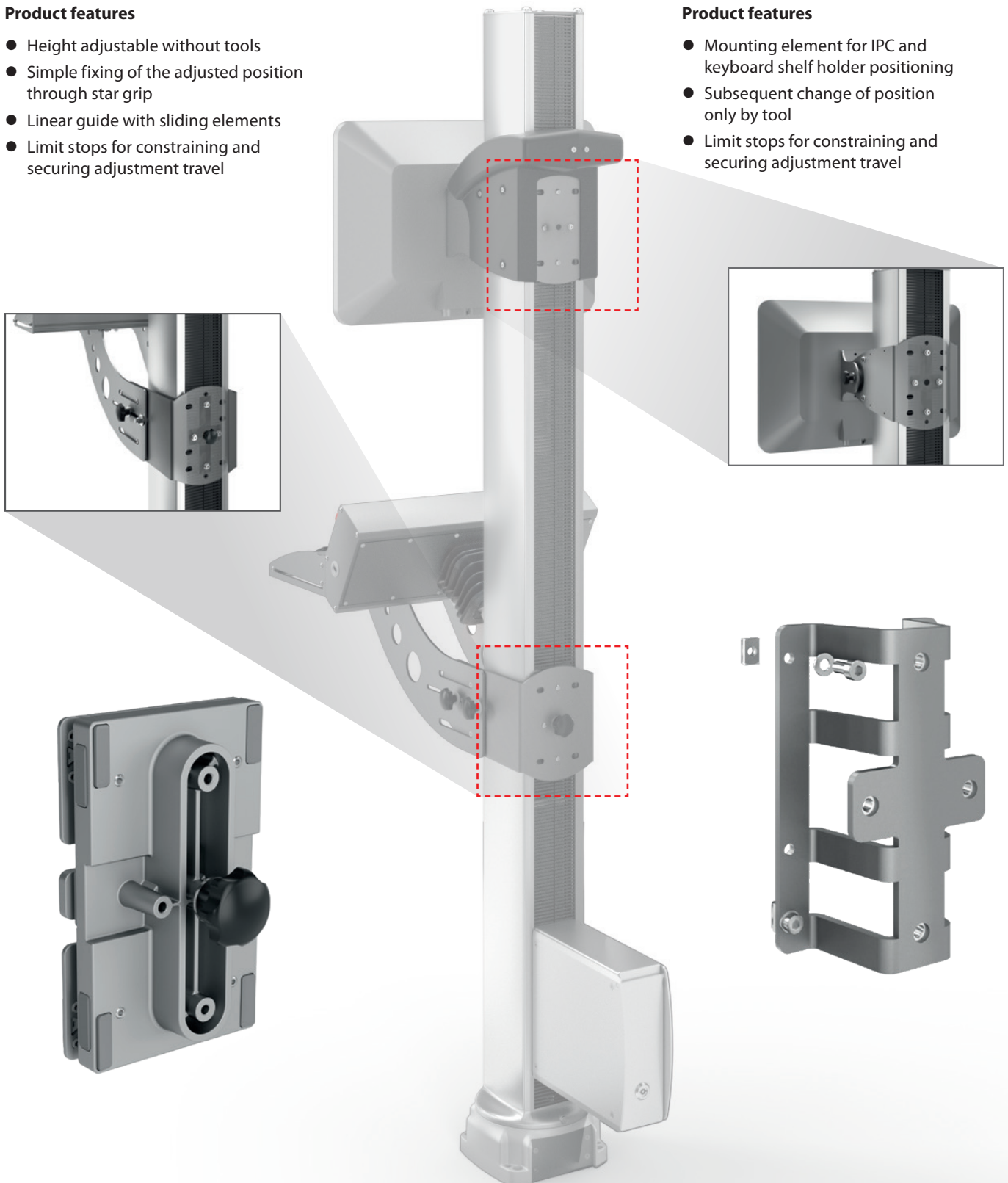
Product features

- Height adjustable without tools
- Simple fixing of the adjusted position through star grip
- Linear guide with sliding elements
- Limit stops for constraining and securing adjustment travel

Mounting element for a fixed height

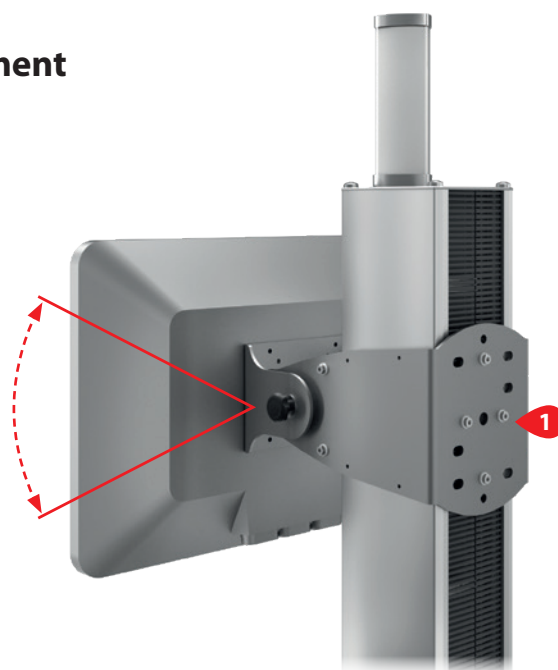
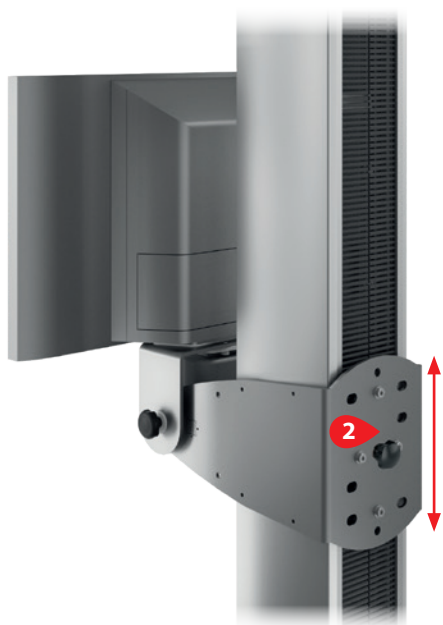
Product features

- Mounting element for IPC and keyboard shelf holder positioning
- Subsequent change of position only by tool
- Limit stops for constraining and securing adjustment travel



Free-standing column CS-4000~~next~~

IPC holder – Variable height and tilt adjustment

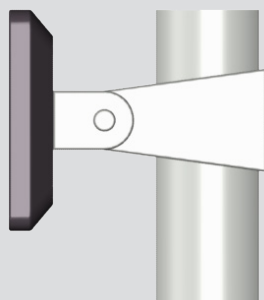


- Height variable through mounting element ❶ (tool-bound) or slider ❷ (without tools) freely selectable
- Connection of IPC/display/monitor with VESA 75/100 or Ø 48 round tube
- Maximum inclination $\pm 24^\circ$ (depending on connection type)

Possible connection type

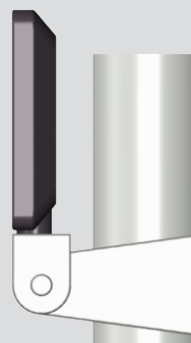
VESA 75/100

Connection from behind



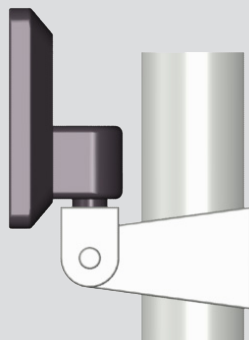
Siemens Pro

Connection from below



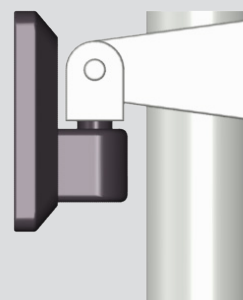
Round tube Ø 48 mm

Connection from below



Round tube Ø 48 mm

Connection from above



Keyboard shelf – Choice of two versions

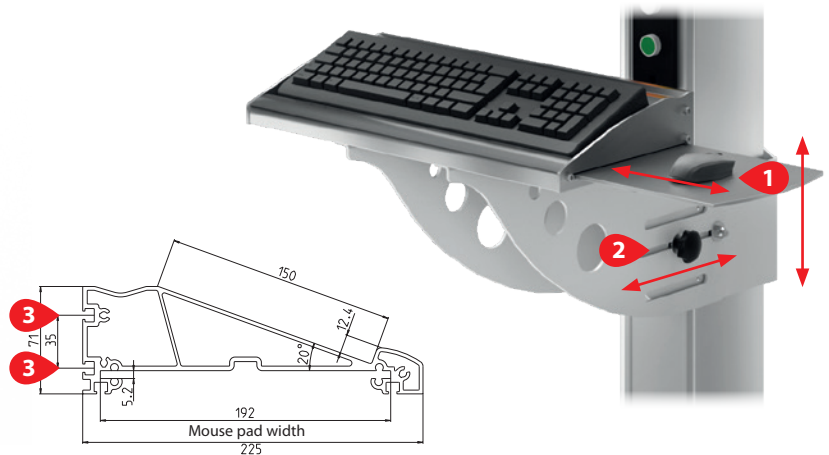
Fixed keyboard shelf

- Height variable through mounting element/slider
- Extruded aluminium sections (naturally anodised)
- Optional mousepad to be pulled out to the right or left side ❶
- Fastening option in the back cover ❸



Adjustable keyboard shelf

- Height variable through mounting element/slider
- Extruded aluminium sections (naturally anodised)
- Optional mousepad to be pulled out to the right or left side ❶
- Maximum possible depth adjustment 100 mm ❷
- Fastening option in the back cover ❸



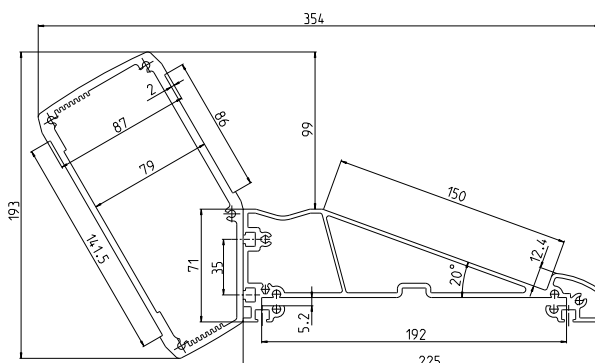
Control console

Integration of all necessary command modules and signal units

The emergency stop function is still fully guaranteed in case of necessary replacement of the IPC.

For the installation of ...

- Command and signalling devices such as push buttons, emergency stop buttons, etc.
- Main switches, key switches
- *Electronic KeySystem* (EKS) – Transponder-based read/write stations
- Adaptable in width individually
- Extruded aluminium sections (naturally anodised)
- Adaptation to keyboard shelf
- Screw-fixed rear panel

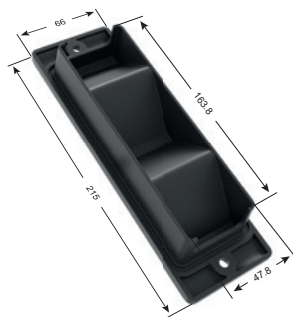
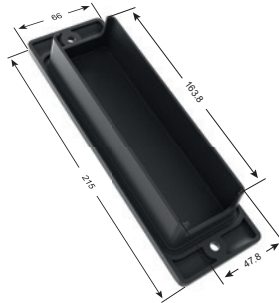


Free-standing column CS-4000 ~~neXt~~

Covers and inspection window with various equipment variants

Push button cover

- Cover for control elements
- Optional integrated emergency stop device and key switch
- Maximum of 5 push buttons or 3 push buttons with identification label
- Installation from the front
- IP65 due to foamed sealing
- Installation area 165 × 60 mm



Cable conduit cover

- Cable conduit cover with 45-degree bevelled curve for optimum bending radius
- Cable entry into the closed column chamber ①
- IP65 due to foamed sealing
- Maximum installation area 2 × M25

Inspection window cover

- For monitoring and control of signalling and built-in devices such as MURR compact module
- Aluminium cover with acrylic glass cover
- Compatible with CS-4000 neXt column section
- Adaptable to AIDA mixing module



Aluminium cover

- Main switches
- Machine operator identification systems
- Key Panels

Accessories

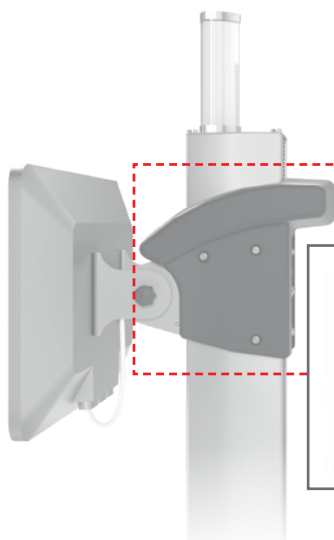
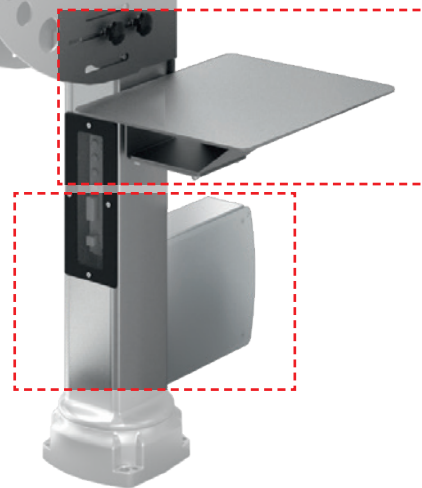


Universal tray

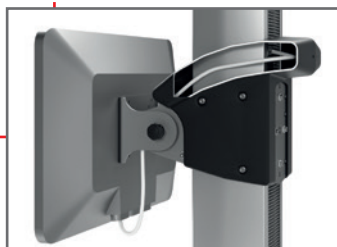
- Safe storage area for printers, PC hardware or similar periphery units
- Fixing to the assembling element or slider on the back side of the column
- Individual mounting on left, on right or even on both sides
- Storage area 450 × 300 mm (adjustable according to your wish)

Box PC holder

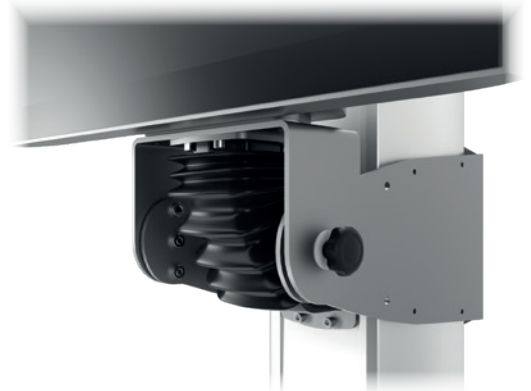
- For safe storage of customary box PCs
- Front side with opening flap – lockable with customary sash locks, e.g. two-way bit
- Protection degree IP65
- Cable entry via closed column chamber
- Inside dimensions (LxWxH): 210 x 60 x 215 mm



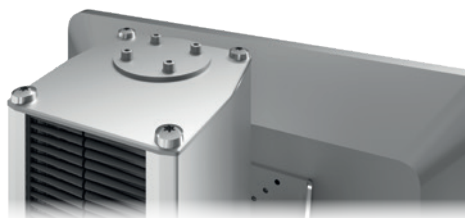
Cable channel



Gaiter channel



Signal lamp cover



Selection criteria for suspension systems

Mechanical load

Different types of suspension systems can support different loads. The most important parameter when determining the right type of suspension system is the mechanical load in the respective application, which consists of the suspended enclosure with its built in components and the length of the extension arm.

After determining the suspended weight and the length of the extension arm in the suspension system, the overview opposite will help you select the right system.

Please note that when using a turn / tilt coupling for mounting the enclosure at the end of the suspension system, the enclosure itself should not exceed a load of 300 N.

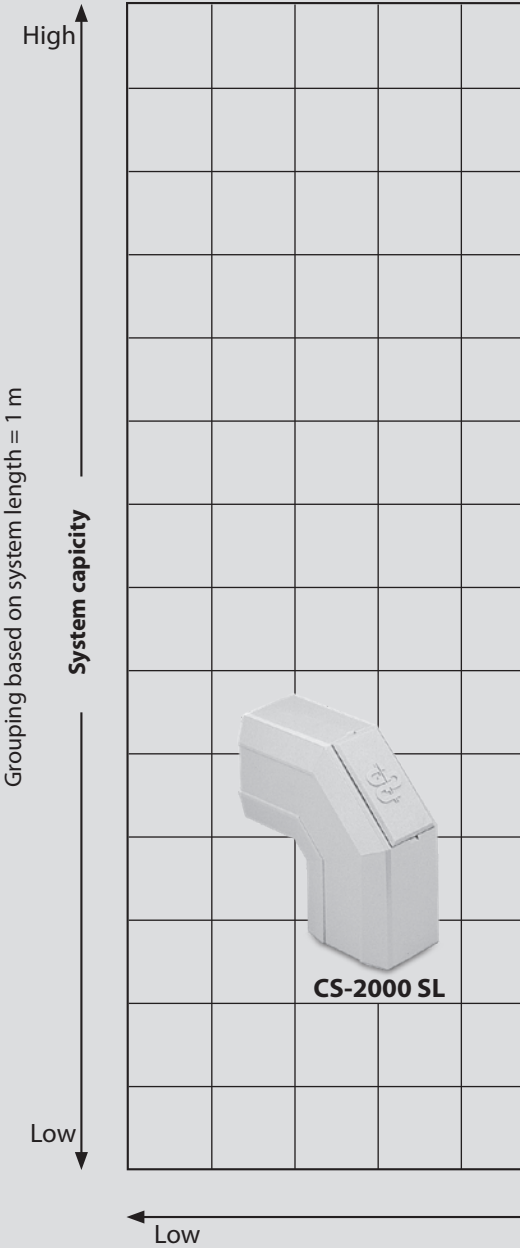
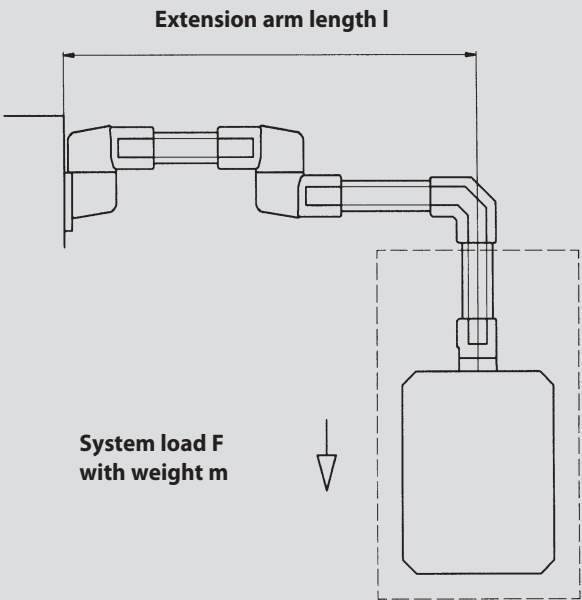
Calculation of force F (system load) as a function of enclosure weight m:

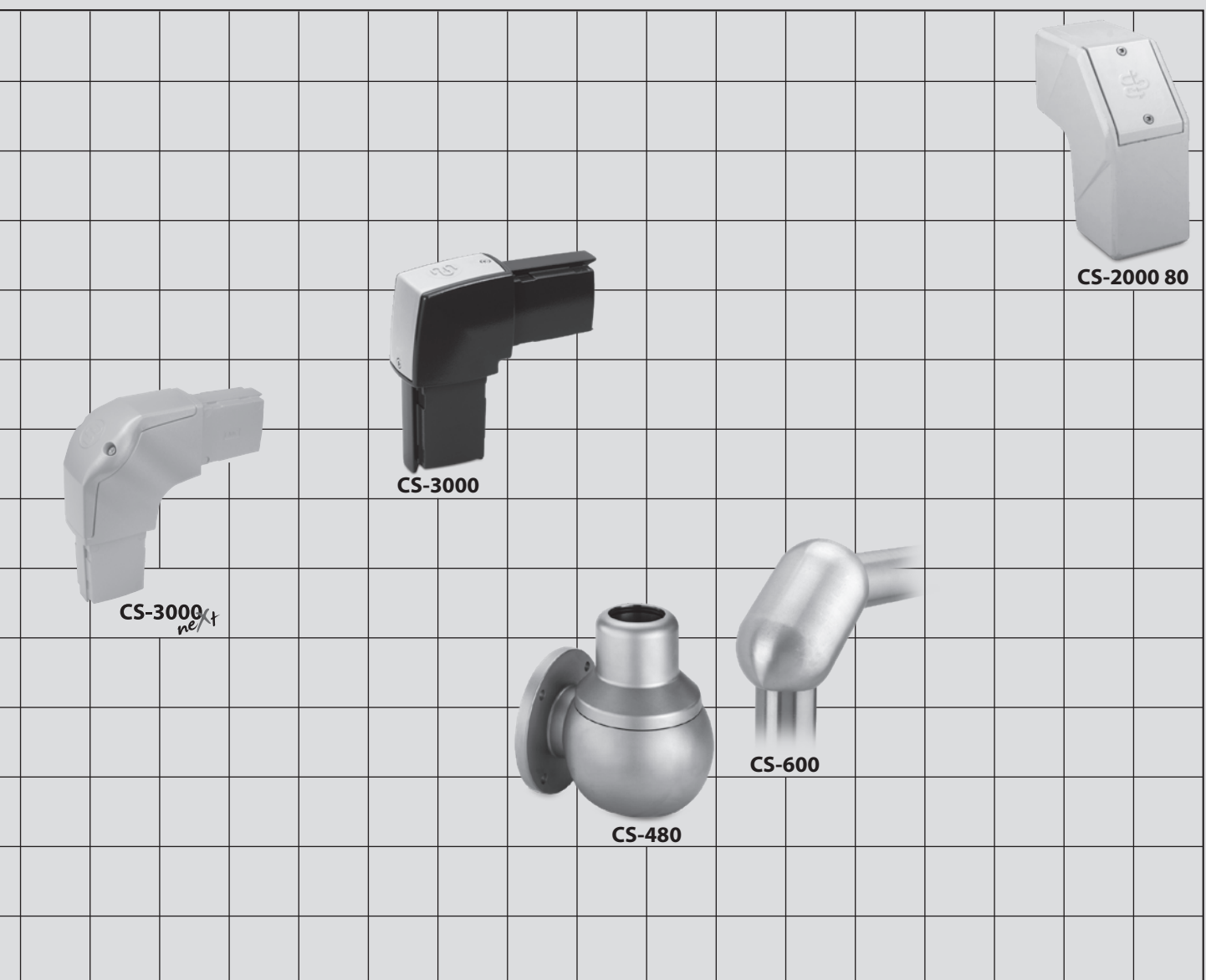
$F\ (N) = m\ (kg) \times g\ (ms^{-2})$

System load F = enclosure weight m multiplied by acceleration due to gravity

$F\ (N) = m\ (kg) \times 9,81\ (ms^{-2})$

The illustration opposite shows an overview of the various suspension systems. You will find more detailed information on the exact loads of the individual systems in the following sections.





Performance

- Configuration options
- Mechanical stability
- Resistance

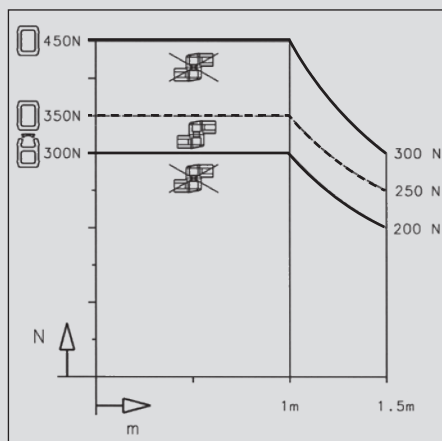
High →

Light-Duty Suspension System CS-2000 SL 45 / 60

The CS-2000 SL light-duty suspension system is specially designed for accepting small, lightweight control enclosures and features short extension arms. In addition to the components in light grey RAL 7035, a version in white aluminium RAL 9006 is now available that elegantly complements our CC-3000, CC-4000 / CC-4000 SL and CC-5000 neXt control enclosures (see page 72 onwards).

System structure

Individual components of the suspension system are combined with an optionally closed or partially open aluminium connection section to achieve the required configuration in accordance with the load diagram (with the exception of panel couplings).



Load diagram

The above diagram shows the load bearing capacity of the CS-2000 SL range of suspension systems (with the exception of panel couplings).

The load bearing capacity of the system changes depending on the type of connecting section used (partially open or closed) or whether an intermediate joint is used.

The following safety factor generally applies:

With an additional load of 75 kg, the suspension system can be subjected to load for 5 seconds without plastic deformation occurring.

The overview on pages 114 / 115 is designed to help you determine the load bearing capacity of all BERNSTEIN suspension systems.



CS-2000 SL Standard
RAL 7035 light grey or
RAL 9006 white aluminium

Materials

- Components: cast aluminium
- Installation opening: POM
- Bearing: POM
- Seals: CR
- Extruded aluminium connecting section
- Connecting section covers on open section: EPDM

Colours

- Suspension system components:
light grey RAL 7035
alternatively: white aluminium RAL 9006
- Connecting section:
silver (natural) anodised

System features

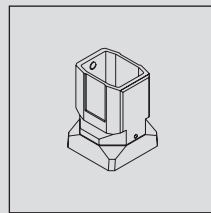
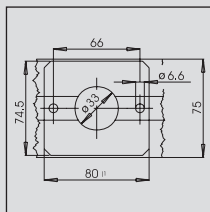
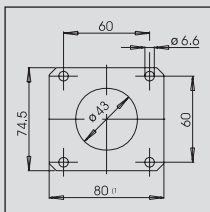
Installation opening at all joints

- Optionally closed or open connecting section can be used
- Clear passage opening in closed system:
 $\varnothing 40 \text{ mm} = 12.5 \text{ cm}^2$ at narrowest point (bearing opening)
- Clear passage opening in partially open system:
– 2.76 cm^2 at narrowest point (entry of section in components)
– 7.40 cm^2 in closed tube
- Easily retrofittable swivel angle limitation on couplings and joints
- Couplings have a small narrow flange for mounting on very narrow enclosures
- Overhead installation of all components possible
- Protection class IP65 (closed aluminium connection section)

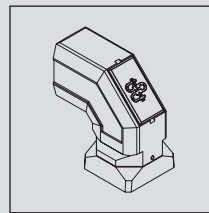
Enclosure preparation for mounting couplings

The geometry of the flange on the straight coupling and on the elbow coupling makes it possible to mount even extremely narrow enclosures. Two centrally arranged threads, with which the coupling is secured to narrow enclosures, are additionally provided for this purpose.

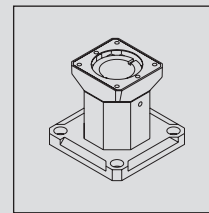
However, the coupling is mounted as standard by means of the four outer flange mounting threads, compatible and interchangeable with the flange mounting pattern of the CS-3000 suspension system. With a diameter of 43 mm, the hole for the cable leadthrough is adapted to the narrowest point in the suspension system (a minimum diameter of 40 mm is available in the bearing opening in the components).



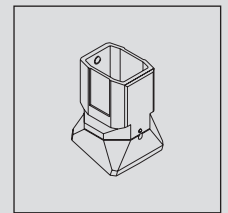
Straight coupling
Article number
1015163000
1015328000



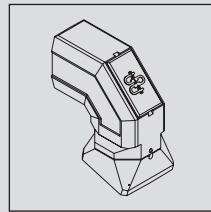
Elbow coupling
Article number
1015165000
1015329000



Base coupling
Article number
1015167000
1015343000

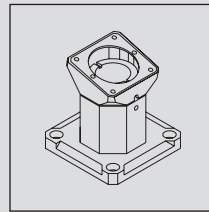


Tilt coupling
Article number
1015164000
1015330000



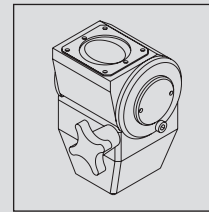
Tilt elbow coupling

Article number
1015166000
1015331000



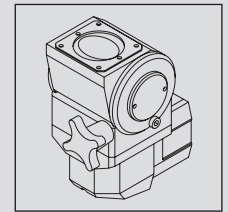
Tilt base coupling

Article number
1015168000
1015344000



Turn / tilt coupling

Article number
1015169000
1015332000

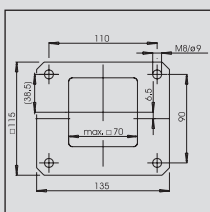


Turn / tilt elbow couplin

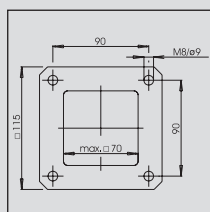
Article number
1015170000
1015333000

Machining mounting surfaces for suspension systems

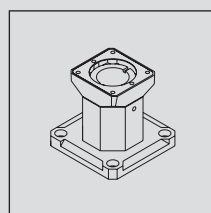
The various elements of the suspension systems can be mounted on walls or floors as well as on or at machines and systems. The corresponding machining drawings for the individual components of the suspension system are shown here.



Wall joints

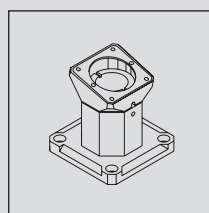


Base and top joint components



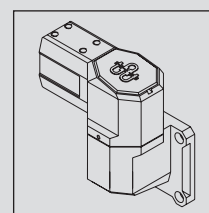
Base coupling

Article number
1015167000
1015343000



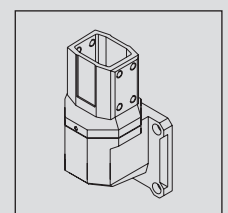
Tilt base coupling

Article number
1015168000
1015344000



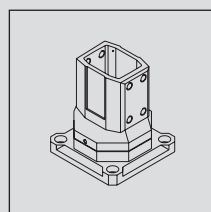
Wall joint, horizontal outlet

Article number
1015176000
1015339000



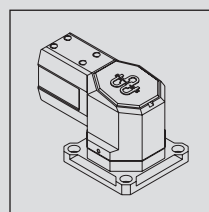
Wall joint, vertical outlet

Article number
1015177000
1015338000



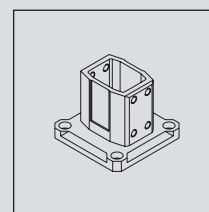
Rotary base

Article number
1015178000
1015341000



Top joint

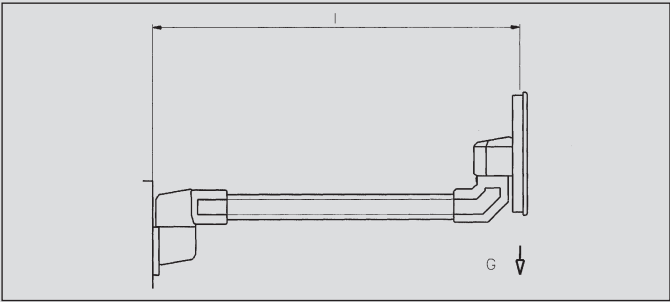
Article number
1015175000
1015340000



Base / wall flange

Article number
1015179000
1015342000

Light-Duty Suspension System CS-2000 SL 45 / 60



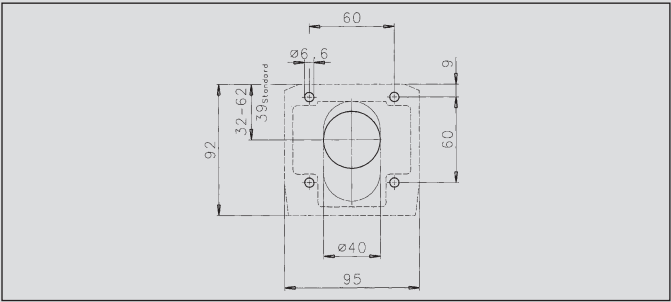
Load, panel components

Mechanical properties

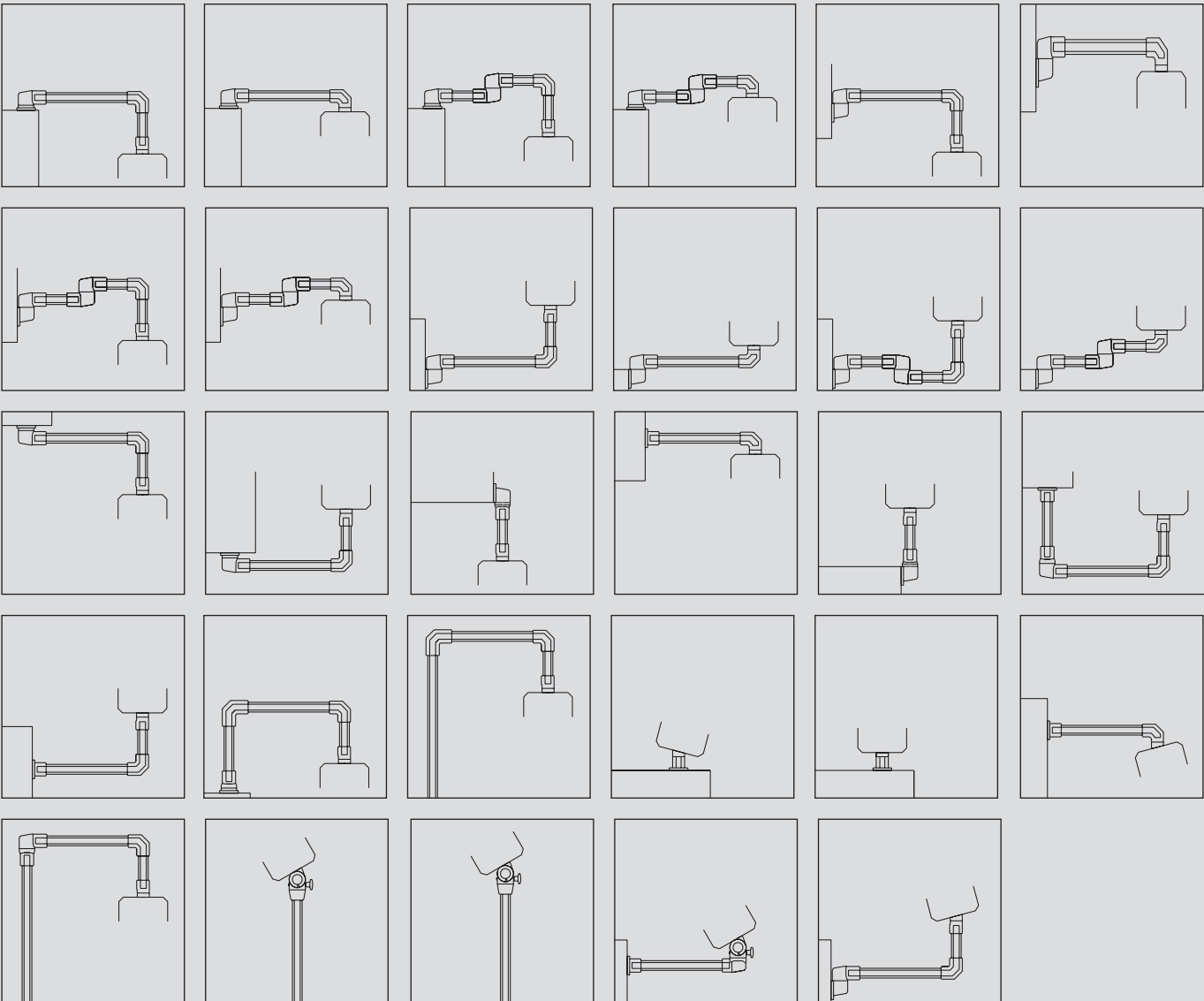
| | |
|----------------------|---------|
| Max. load G | 250 N |
| Max. System length L | 1500 mm |

System combinations

The large number of components and different versions of the connecting sections enable many different combinations. A selection of the possible configuration is shown below

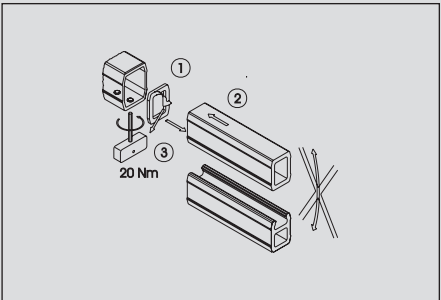


Drawing for preparing enclosure rear panel for attaching panel couplings



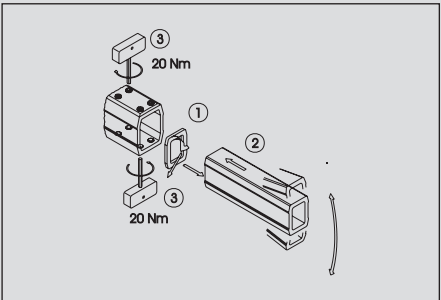
Connecting Section CS-2000 SL 45 / 60

Assembling the connecting sections



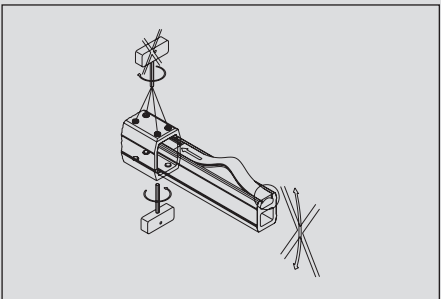
[A] Open or closed section in straight coupling and elbow coupling:

Adhere seal to connecting section (1), fit connecting section in suspension system component (2, 3).



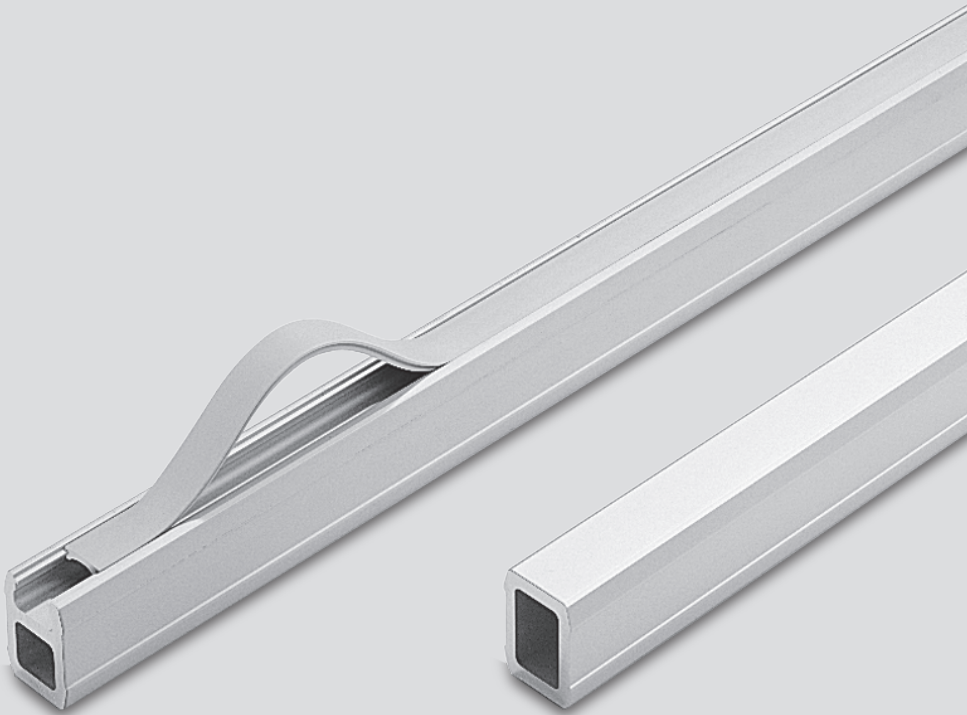
[B] Closed section in suspension system components with eight mounting screws:

Adhere seal to connecting section (1), fit connecting section in suspension system component (2, 3) while adjusting the section.



[C] Open section in suspension system components with eight mounting screws:

Adhere seal to connecting section, fit connecting section in suspension system component, only fit the four mounting screws on the closed part of the tubing, install cover seal.

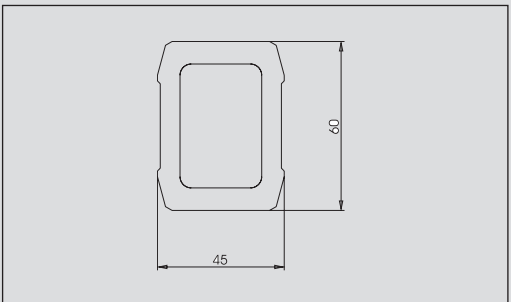
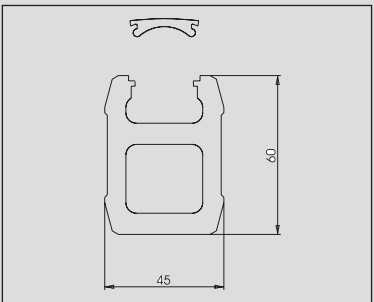


Connecting sections

The connecting section is a drawn aluminium AlMgSi 0.5 bar. The surface is anodised and therefore corresponds to a colour similar to RAL 9006. The connecting section can be used both in open as well as in completely closed cable ducts. The partly open section has an EPDM cover, coloured similar to RAL 7042. This flexible plastic cover can be easily withdrawn and reinserted.

| Open section | |
|-----------------|----------------|
| Dimensions (mm) | Article number |
| 45 x 60 x 250 | 9524001000 |
| 45 x 60 x 500 | 9524002000 |
| 45 x 60 x 750 | 9524003000 |
| 45 x 60 x 1000 | 9524004000 |
| 45 x 60 x 1250 | 9524005000 |
| 45 x 60 x 1500 | 9524006000 |
| 45 x 60 x 2000 | 9524008000 |

| Closed section | | |
|-----------------|----------------|---------------|
| Dimensions (mm) | Article number | Weights in kg |
| 45 x 60 x 250 | 9524301000 | 0.90 |
| 45 x 60 x 500 | 9524302000 | 1.80 |
| 45 x 60 x 750 | 9524303000 | 2.60 |
| 45 x 60 x 1000 | 9524304000 | 3.50 |
| 45 x 60 x 1250 | 9524305000 | 4.40 |
| 45 x 60 x 1500 | 9524306000 | 5.20 |
| 45 x 60 x 2000 | 9524308000 | 6.90 |



You will find an aid for selecting the load bearing capacity on pages 114 / 115.

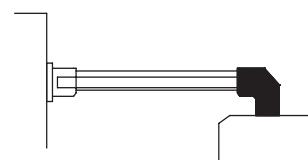
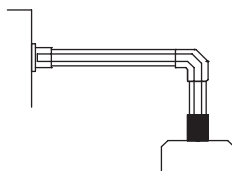
Light-Duty Suspension System CS-2000 SL 45 / 60

| Article | | Straight coupling CS-2000 SL | | Elbow coupling CS-2000 SL | |
|----------------|----------|------------------------------|--------------------------|---------------------------|--------------------------|
| Article number | (colour) | 1015163000 | RAL 7035 light grey | 1015165000 | RAL 7035 light grey |
| | | 1015369000 | RAL 9006 white aluminium | 1015370000 | RAL 9006 white aluminium |

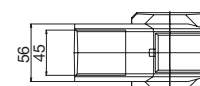
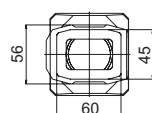
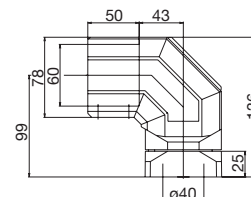
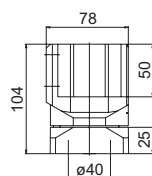
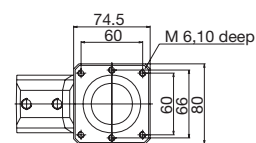
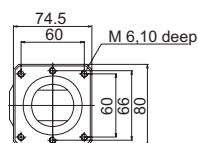


| | | |
|---|--|--|
| Details | Angle of rotation 300° with stop. Complete with installation material and seals | Installation opening with snap-on plastic cover. Angle of rotation 300° with stop. Complete with installation material and seals |
| Weight in g | 740 | 960 |
| Material | Aluminium | Aluminium |
| Accessories (retrofitable) see pages 166 / 167 | Swivel angle limiter 9805129000 | Swivel angle limiter 9805129000 |

Application example



Dimensions in mm



CAD files available
at www.bernstein.eu

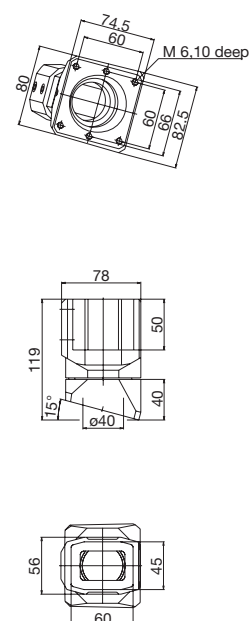
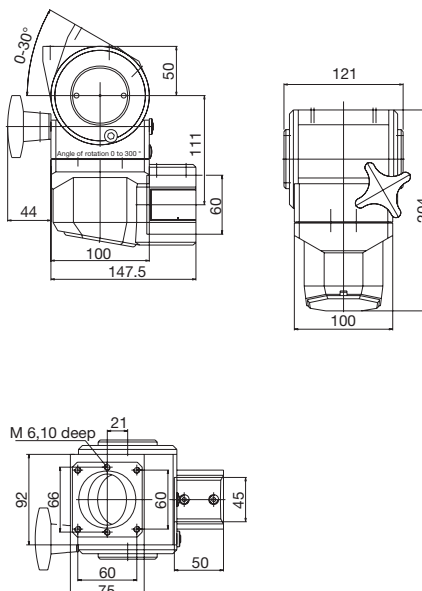
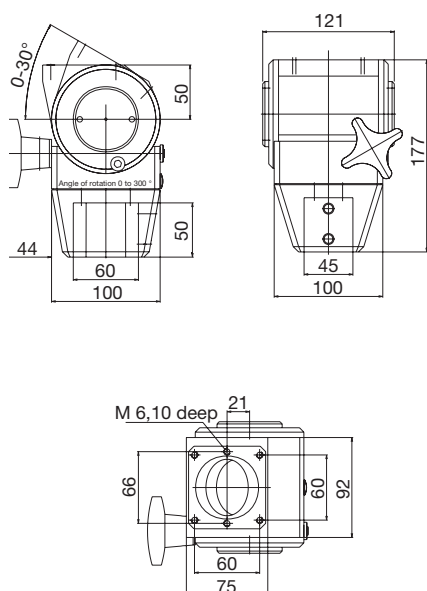
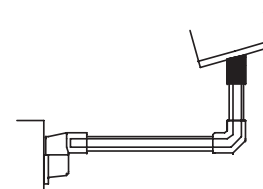
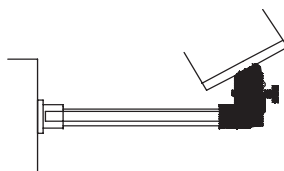
| Turn / tilt coupling CS-2000 SL | | Turn / tilt elbow coupling CS-2000 SL | | Tilt coupling CS-2000 SL | |
|---------------------------------|--------------------------|---------------------------------------|--------------------------|--------------------------|--------------------------|
| 1015169000 | RAL 7035 light grey | 1015170000 | RAL 7035 light grey | 1015164000 | RAL 7035 light grey |
| 1015371000 | RAL 9006 white aluminium | 1015372000 | RAL 9006 white aluminium | 1015373000 | RAL 9006 white aluminium |



| | | |
|--|--|---|
| Angle of rotation 300° with stop. Infinitely variable inclination from 0 to 30°. Complete with installation material and seals. Enclosure max. 300 N | Angle of rotation 300° with stop. Infinitely variable inclination from 0 to 30°. Complete with installation material and seals. Enclosure max. 300 N | Tilt angle 15°. Angle of rotation 300° with stop. Complete with installation material and seals |
|--|--|---|

| | | |
|-----------|-----------|-----------|
| 3000 | 3300 | 1100 |
| Aluminium | Aluminium | Aluminium |

| | | | | | |
|-----------------------------|-------------------|-----------------------------|-------------------|-----------------------------|-------------------|
| Swivel angle limiter | 9805130000 | Swivel angle limiter | 9805130000 | Swivel angle limiter | 9805129000 |
|-----------------------------|-------------------|-----------------------------|-------------------|-----------------------------|-------------------|

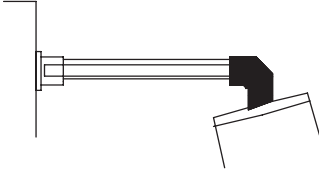
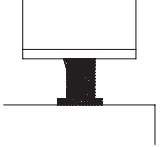


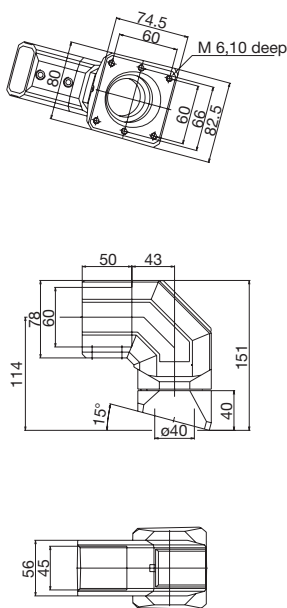
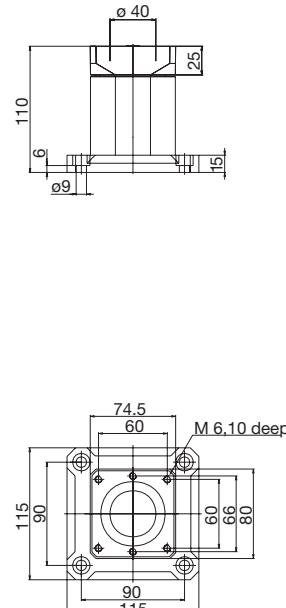
Light-Duty Suspension System CS-2000 SL 45 / 60

| Article | | Tilt elbow coupling CS-2000 SL | Base coupling CS-2000 SL |
|----------------|----------|---|---|
| Article number | (colour) | 1015166000 RAL 7035 light grey 1015374000 RAL 9006 white aluminium | 1015167000 RAL 7035 light grey 1015375000 RAL 9006 white aluminium |



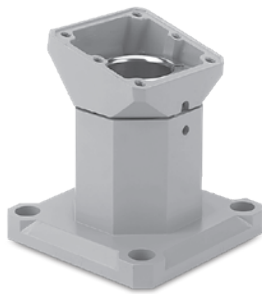
| | | |
|---|--|---|
| Details | Tilt angle 15°. Installation opening with snap-on plastic cover. Angle of rotation 300° with stop. Complete with installation material and seals | Angle of rotation 300° with stop. Complete with installation material for enclosure and seals |
| Weight in g | 1400 | 1180 |
| Material | Aluminium | Aluminium |
| Accessories (retrofitable) see pages 166 / 167 | Swivel angle limiter 9805129000 | Swivel angle limiter 9805129000 |

| | | |
|---------------------|---|---|
| Application example |  |  |
|---------------------|---|---|

| | | |
|------------------|---|---|
| Dimensions in mm |  |  |
|------------------|---|---|

CAD files available
at www.bernstein.eu

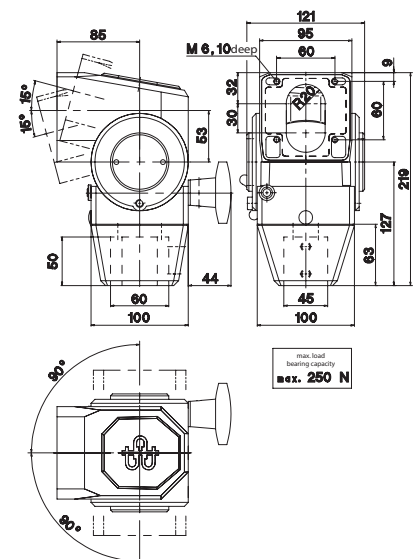
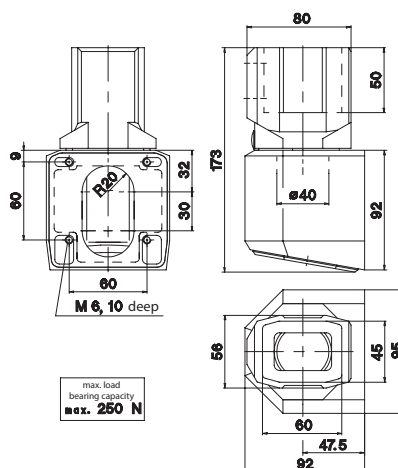
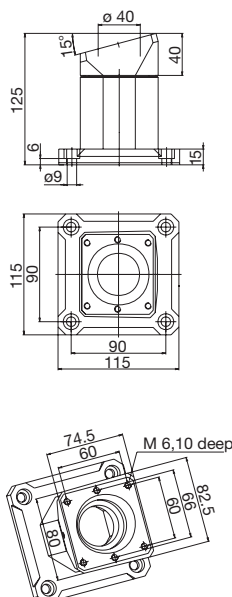
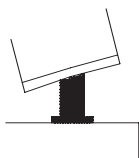
| Tilt base coupling CS-2000 SL | | Panel coupling | | Panel turn / tilt coupling S | |
|-------------------------------|--------------------------|-------------------|--------------------------|------------------------------|--------------------------|
| 1015168000 | RAL 7035 light grey | 1015232000 | RAL 7035 light grey | 1015235000 | RAL 7035 light grey |
| 1015376000 | RAL 9006 white aluminium | 1015377000 | RAL 9006 white aluminium | 1015378000 | RAL 9006 white aluminium |



| | | |
|---|---|---|
| Angle of rotation 300° with stop. Fixed inclination of 15°. Complete with installation material for enclosure and seals | For rear connection of narrow and lightweight controller panels to the CS-2000 SL light-duty suspension system; the maximum load of this component is 250 N at a maximum system length of 1500 mm | For rear connection of narrow and lightweight controller panels to the CS-2000 SL light-duty suspension system; the maximum load of this component is 250 N at a maximum system length of 1500 mm |
|---|---|---|

| | | |
|-----------|-----------|-----------|
| 1200 | 3000 | 3400 |
| Aluminium | Aluminium | Aluminium |

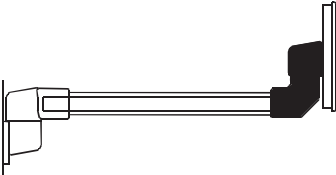
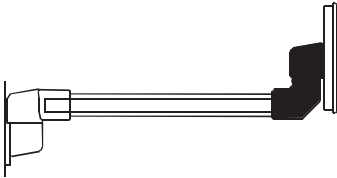
| | | |
|-----------------------------|-------------------|--|
| Swivel angle limiter | 9805129000 | |
|-----------------------------|-------------------|--|



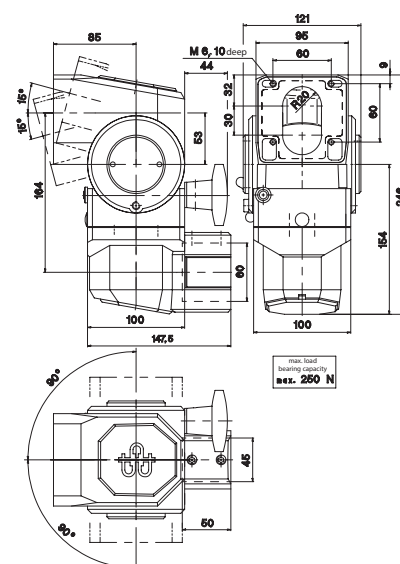
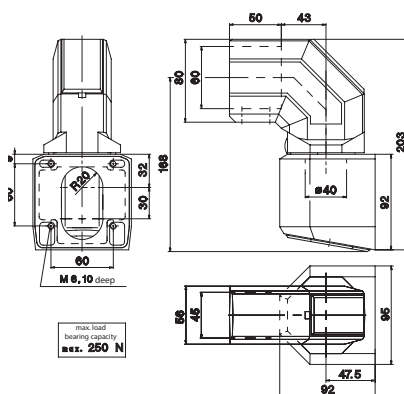
Light-Duty Suspension System CS-2000 SL 45 / 60

| Article | | Panel elbow coupling | | Panel tilt / turn elbow coupling W | |
|----------------|----------|----------------------|--------------------------|------------------------------------|--------------------------|
| Article number | (colour) | 1015233000 | RAL 7035 light grey | 1015236000 | RAL 7035 light grey |
| | | 1015379000 | RAL 9006 white aluminium | 1015380000 | RAL 9006 white aluminium |



| | | |
|--|---|---|
| Details | For rear connection of narrow and lightweight controller panels to the CS-2000 SL light-duty suspension system; the maximum load of this component is 250 N at a maximum system length of 1500 mm | For rear connection of narrow and lightweight controller panels to the CS-2000 SL light-duty suspension system; the maximum load of this component is 250 N at a maximum system length of 1500 mm |
| Weight in g | 3000 | 3460 |
| Material | Aluminium | Aluminium |
| Accessories (retrofitable) see pages 166 / 167 | | |
| | | |
| Application example |  |  |
| Dimensions in mm | | |

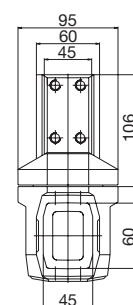
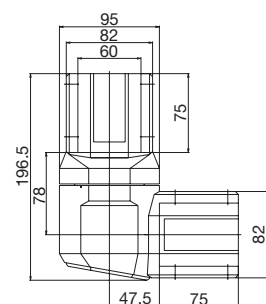
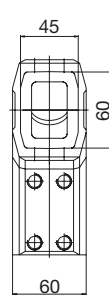
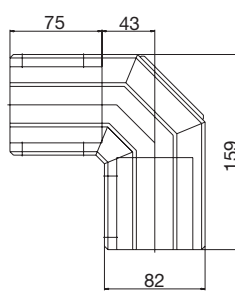
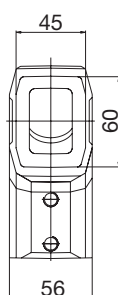
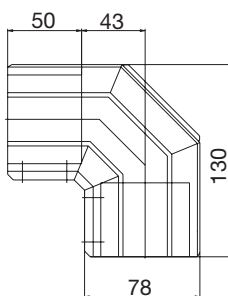
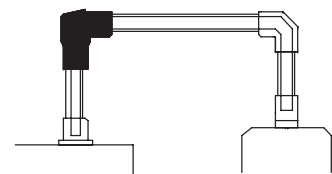
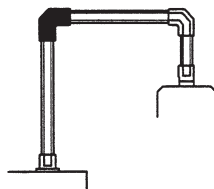
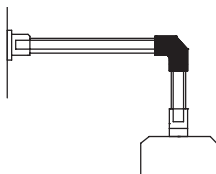
**CAD files available
at www.bernstein.eu**



| Elbow CS-2000 SL | | Elbow for torque load CS-2000 SL | | Plug-on joint CS-2000 SL | |
|-------------------|--------------------------|----------------------------------|--------------------------|--------------------------|--------------------------|
| 1015171000 | RAL 7035 light grey | 1015172000 | RAL 7035 light grey | 1015173000 | RAL 7035 light grey |
| 1015381000 | RAL 9006 white aluminium | 1015382000 | RAL 9006 white aluminium | 1015383000 | RAL 9006 white aluminium |



| | | |
|---|--|---|
| Installation opening with snap-on plastic cover. Complete with seals | Increased wall strength. Adjustment facility. Installation opening with snap-on plastic cover. Complete with seals | Swivel angle 300° with stop. Installation opening with snap-on plastic cover. Complete with seals |
| 590 | 1000 | 1850 |
| Aluminium | Aluminium | Aluminium |
| | | Swivel angle limiter 9805132000 |

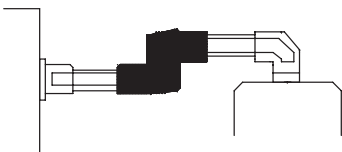
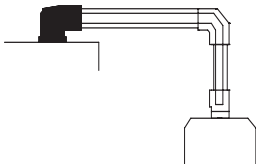


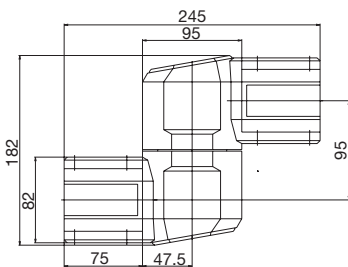
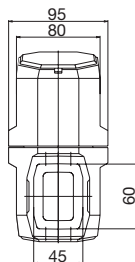
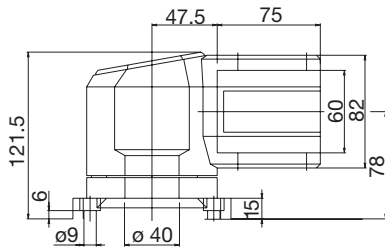
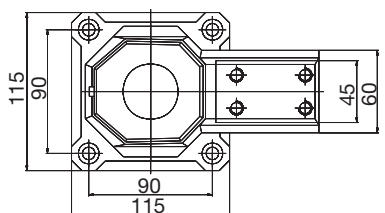
Light-Duty Suspension System CS-2000 SL 45 / 60

| Article | | Intermediate joint CS-2000 SL | | Top joint CS-2000 SL | |
|----------------|----------|-------------------------------|--------------------------|----------------------|--------------------------|
| Article number | (colour) | 1015174000 | RAL 7035 light grey | 1015175000 | RAL 7035 light grey |
| | | 1015384000 | RAL 9006 white aluminium | 1015385000 | RAL 9006 white aluminium |



| | | |
|---|--|--|
| Details | Swivel angle 360° with limit stop. Installation openings both ends. Adjustment facility. Complete with seals | Swivel angle 300° with stop. Adjustment facility. Installation opening with snap-on plastic cover. Complete with seals |
| Weight in g | 2130 | 1720 |
| Material | Aluminium | Aluminium |
| Accessories (retrofitable) see pages 166 / 167 | Swivel angle limiter 9805132000 | Swivel angle limiter 9805132000 |

| | | |
|---------------------|---|---|
| Application example |  |  |
|---------------------|---|---|

| | | |
|------------------|---|---|
| Dimensions in mm |   |   |
|------------------|---|---|

CAD files available
at www.bernstein.eu

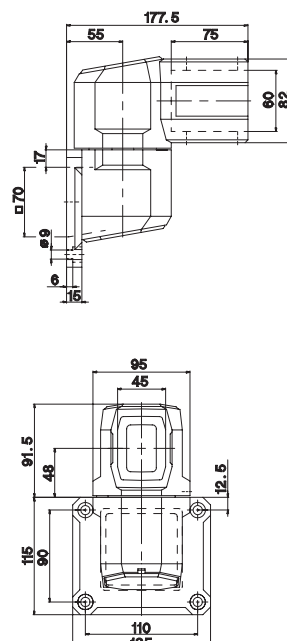
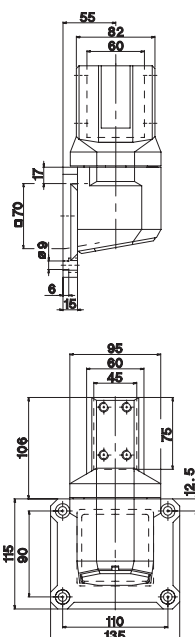
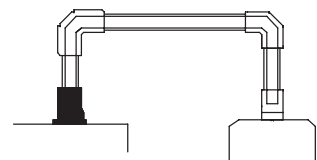
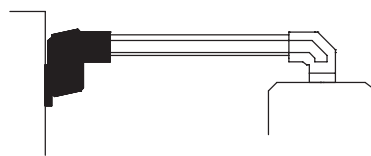
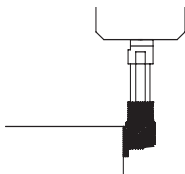
| Wall joint, vertical outlet CS-2000 SL | | Wall joint, horizontal outlet CS-2000 SL | | Base, rotary CS-2000 SL | |
|--|--------------------------|--|--------------------------|-------------------------|--------------------------|
| 1015177000 | RAL 7035 light grey | 1015176000 | RAL 7035 light grey | 1015178000 | RAL 7035 light grey |
| 1015386000 | RAL 9006 white aluminium | 1015387000 | RAL 9006 white aluminium | 1015388000 | RAL 9006 white aluminium |



| | | |
|--|--|---|
| Swivel angle 300° with stop. Adjustment facility. Installation opening with snap-on plastic cover. Complete with seals | Swivel angle 300° with stop. Adjustment facility. Installation opening with snap-on plastic cover. Complete with seals | Angle of rotation 300° with stop Adjustment facility. Complete with seals |
|--|--|---|

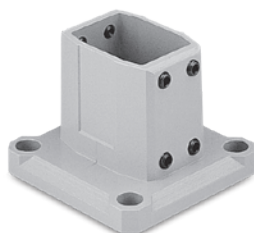
| | | |
|-----------|-----------|-----------|
| 1840 | 2090 | 1460 |
| Aluminium | Aluminium | Aluminium |

| | | | | | |
|-----------------------------|-------------------|-----------------------------|-------------------|-----------------------------|-------------------|
| Swivel angle limiter | 9805132000 | Swivel angle limiter | 9805132000 | Swivel angle limiter | 9805132000 |
|-----------------------------|-------------------|-----------------------------|-------------------|-----------------------------|-------------------|

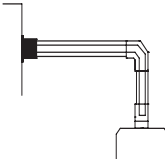
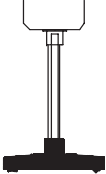


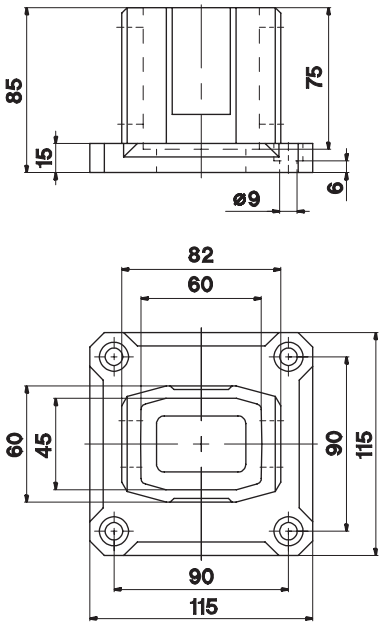
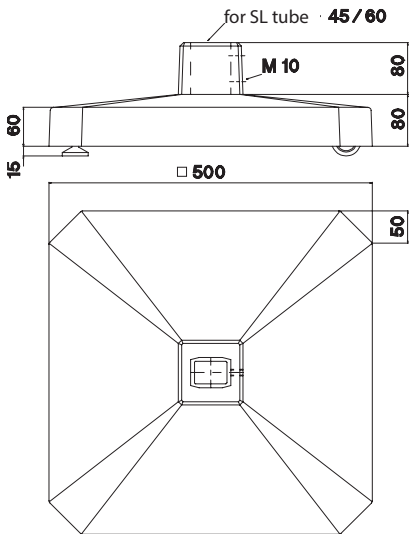
Light-Duty Suspension System CS-2000 SL 45 / 60

| Article | | Base, wall flange CS-2000 SL | Free-standing base CS-2000 SL |
|----------------|----------|---|---|
| Article number | (colour) | 1015179000 RAL 7035 light grey 1015389000 RAL 9006 white aluminium | 1015180000 RAL 7035 light grey 1015390000 RAL 9006 white aluminium |



| | | |
|----------------------------|--|---------------------------------------|
| Details | Adjustment facility. Complete with seals | Base for free-standing applications |
| Weight in g | 690 | 11820 |
| Material | Aluminium | Aluminium |
| Accessories (retrofitable) | | Castors and support feet see page 167 |

| | | |
|---------------------|---|---|
| Application example |  |  |
|---------------------|---|---|

| | | |
|------------------|---|---|
| Dimensions in mm |  |  |
|------------------|---|---|

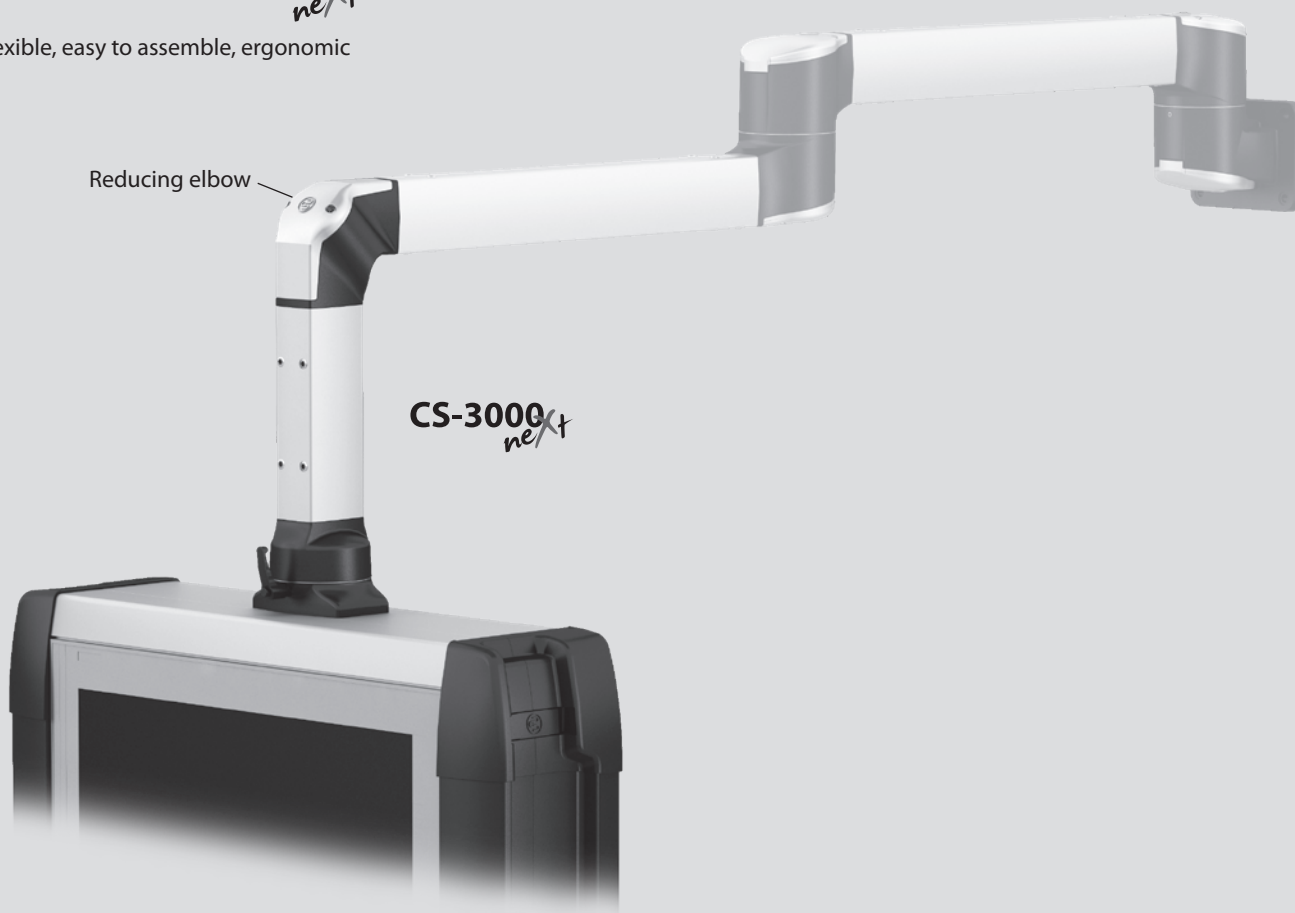
CAD files available
at www.bernstein.eu

BERNSTEIN Aluminium Suspension Systems

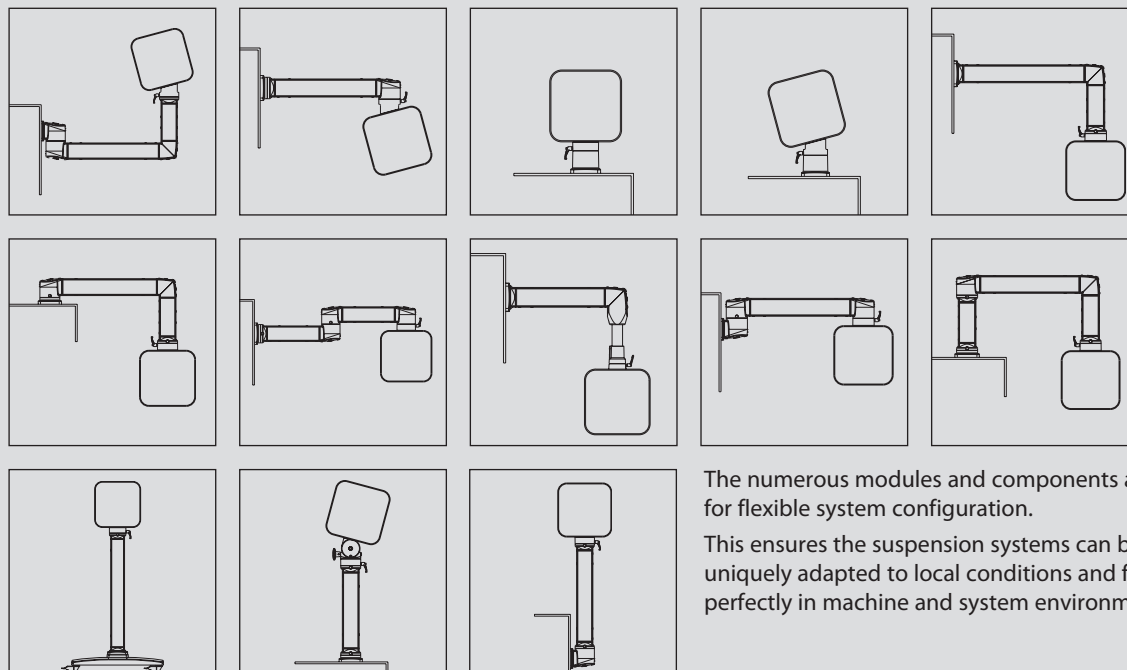
CS-3000 and CS-3000_{next}

flexible, easy to assemble, ergonomic

CS-3000



Application examples for CS-3000 / CS-3000_{next} suspension system – Versatile configuration options



The numerous modules and components allow for flexible system configuration.

This ensures the suspension systems can be uniquely adapted to local conditions and fit perfectly in machine and system environments.

Suspension System CS-3000 Family

Flexible and efficient: The BERNSTEIN CS-3000

In the main, system constructors expect modern suspension systems to feature variable configuration, progressive design and complete ease installation.

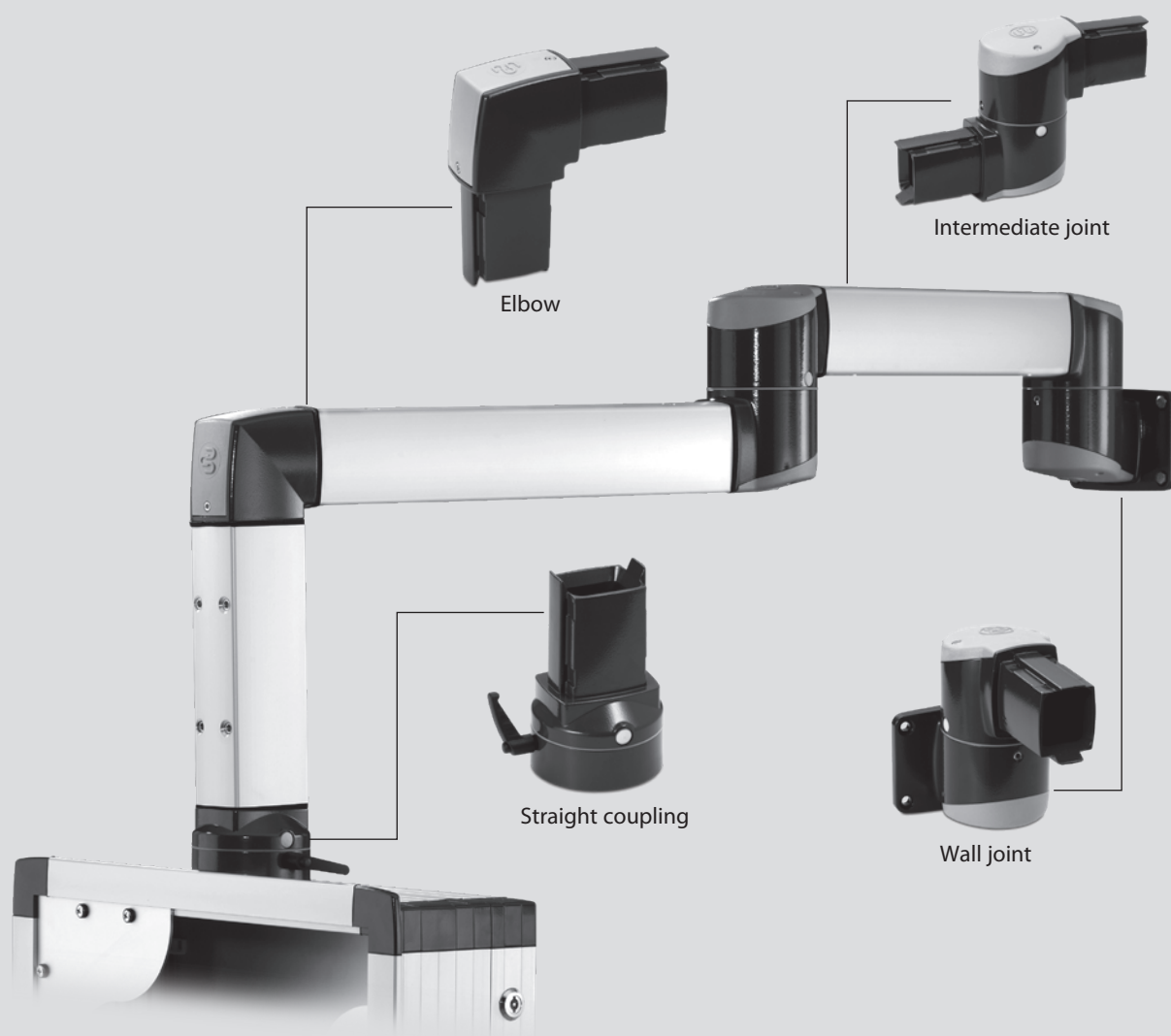
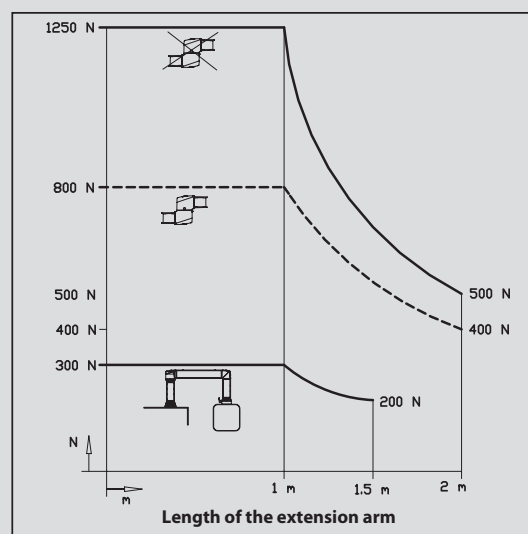
BERNSTEIN sets standards with the CS-3000:

Modern industrial design, well-conceived ergonomics!

The combinable components create an innovative system solution based on modular principles for attaching enclosures, especially the BERNSTEIN CC-3000, CC-4000, CC-4000 SL and CC-5000 neXt enclosures (see page 72 onwards), to machines and systems.

The particular ease of assembly and installation of the CS-3000 is reflected in substantial time savings and cost efficiency.

Load diagram for static load capacity CS-3000

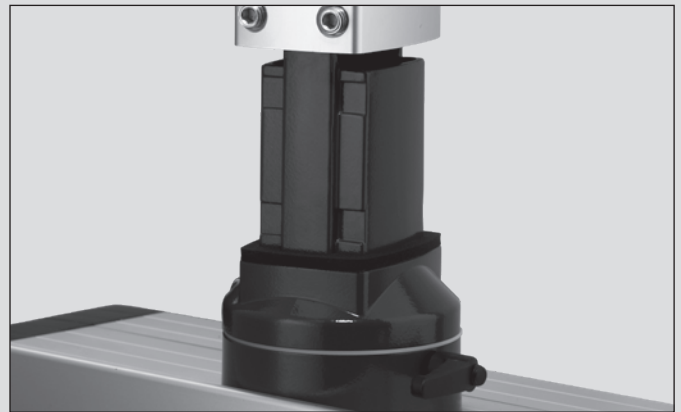


In addition to the positively locking tube mounting screws other features include:

- **Six-fold form-fit** thanks to component contour in tube attachment area (the otherwise optional safety hole additionally required for overhead installation is rendered unnecessary)
- **One-man installation** of the complete system
- **Infinitely variable system alignment** by means of tube mounting screws
- **Subsequent alignment** at any time without dismantling the complete system
- Cable and installation openings at all joints in the system
- Different tube lengths for variable configuration
- Tube machined at one end can be cut to required length (machining templates supplied)
- **Adjustable torque**
Fine adjustment of firmness by means of clamping lever or screw



Intelligent design with smooth flowing transition lines for ease of cleaning



Six-fold form-fit thanks to component contour in tube attachment area



Effortless readjustment possible at any time without the need to dismantle the complete system

Other system features:

- Anodises aluminium tubes for long service life and reliable operation
- Smooth flowing transition lines from the tube to other components prevent dirt built-up (easy to clean)
- Coated tube mounting screws for sealing threaded holes and secure screw connections
- Elegant appearance with narrow sections connected by adapting the cross section from square to round tube
- Modular coupling configurations possible (also subsequently), e.g. with adapter for narrow enclosures or tilt adapter
- Well-conceived ergonomics for easy and virtually fatigue-free operation
- An ideal single-source solution for BERNSTEIN control enclosures
- Protection class IP65

Suspension System CS-3000 *neXt*

Technology meets design: The BERNSTEIN CS-3000 neXt

The CS-3000 neXt combines functionality with an appealing design. The new system is an important addition to the CS-3000 series, it is easy to clean and benefits from simplified installation, outstanding visual characteristics such as smooth transitions between tube and component and the high quality which BERNSTEIN is known for. The wide range of components, the high strength of the system and the load capacity provide individual solutions.

Standard colouring:

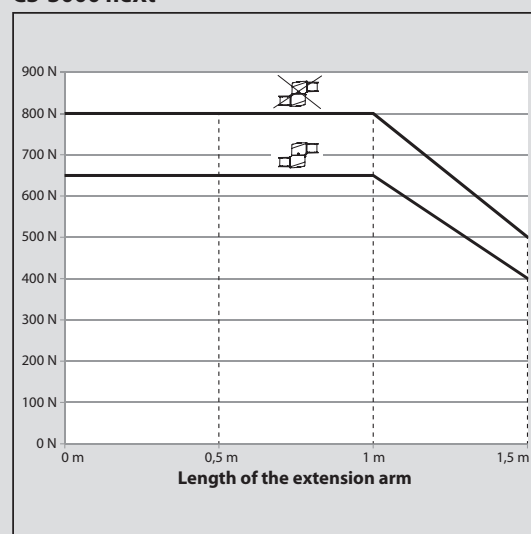
Components finished to RAL 9006 white aluminium or

RAL 7016 anthracite grey

Connection section: Natural anodised finish

Components (incl. caps) and connection sections can be optionally special-coated to a wide variety of RAL colours.

Load diagram for static load capacity CS-3000 neXt

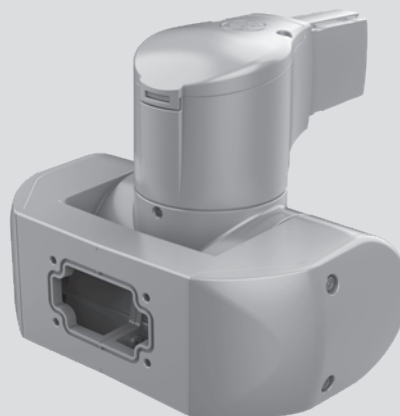


NEW

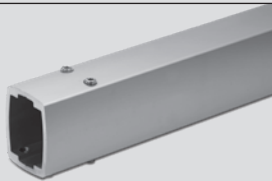
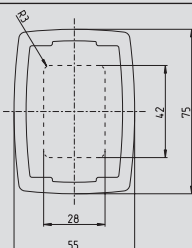
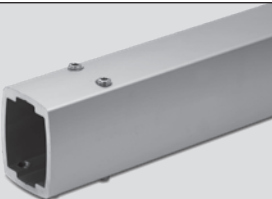
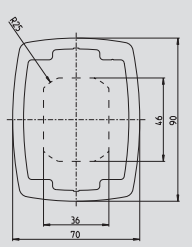
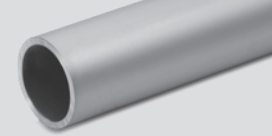
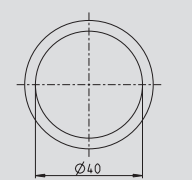
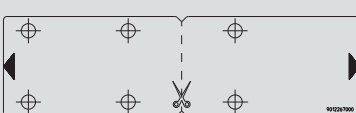
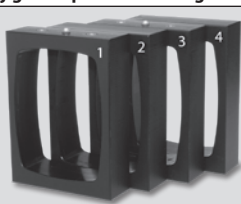

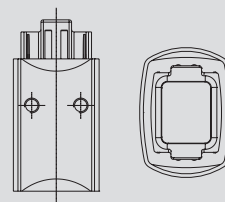
Highlights



Turn/tilt coupling S
for CS-3000 and CS-3000 neXt



Turn/tilt coupling W
for CS-3000 and CS-3000 neXt

| CS-3000 neXt Aluminium connection section | | | | | |
|---|---|--|----------------|---------------|---|
|  | Standard lengths (available from stock) | | Article number | Weights in kg |  |
| | Tube cross section x Length | | | | |
| | Length 55 x 75 x 250 mm | | 9524700001 | 0.90 | |
| | Length 55 x 75 x 500 mm | | 9524700002 | 1.70 | |
| | Length 55 x 75 x 750 mm | | 9524700003 | 2.60 | |
| | Length 55 x 75 x 1000 mm | | 9524700004 | 3.40 | |
| | Length 55 x 75 x 1250 mm | | 9524700005 | 4.30 | |
| | Length 55 x 75 x 1500 mm | | 9524700006 | 5.20 | |
| CS-3000 Aluminium connection section | | | | | |
|  | Tube cross section x Length | | | |  |
| | Length 70 x 90 x 250 mm | | 9524500001 | 1.30 | |
| | Length 70 x 90 x 500 mm | | 9524500002 | 2.50 | |
| | Length 70 x 90 x 750 mm | | 9524500003 | 3.70 | |
| | Length 70 x 90 x 1000 mm | | 9524500004 | 5.00 | |
| | Length 70 x 90 x 1250 mm | | 9524500005 | 6.20 | |
| | Length 70 x 90 x 1500 mm | | 9524500006 | 7.50 | |
| | Length 70 x 90 x 1750 mm | | 9524500007 | 8.70 | |
| | Length 70 x 90 x 2000 mm | | 9524500008 | 10.00 | |
| | Tubes machined at one end (machining templates supplied, available from stock) | | | | |
| | 70 x 90 x 1000 mm | | 9524500009 | 5.00 | |
| | 70 x 90 x 2000 mm | | 9524500010 | 10.00 | |
| If one of our standard lengths does not suit your requirements, we can also supply tubes machined at one end. Simply shorten to the required length and use the supplied template to machine the shortened end. | | | | | |
| CS-3000 neXt | | | | | |
| Round aluminium tubing | | | | | |
| Round aluminium tubes are available in different lengths. We can also supply completely machined tubes to the length you require. (prices and delivery time on request) | | | | | |
|  | Diameter x Wall thickness x Length | | | |  |
| | Length 48 x 4 x 250 mm | | 9521400000 | 0.40 | |
| | Length 48 x 4 x 500 mm | | 9521401000 | 0.80 | |
| | Length 48 x 4 x 750 mm | | 9521402000 | 1.10 | |
| | Length 48 x 4 x 1000 mm | | 9521403000 | 1.50 | |
| Special tube lengths | | Machined tubes to required lengths | | | |
| | | We can also supply completely machined tubes to the length you require (price and delivery time on request). | | | |
| Drilling label for special tube lengths | | | | | |
|  | Using the template, bore the holes in the exact positions. Choose the appropriate connection section and order the number of drilling templates required. | | | | |
| | CS-3000 | | 9012267000 | | |
| | CS-3000 neXt | | 9012328000 | | |
| Drilling jigs for special tube lengths | | | | | |
|  | Once the tube has been cut to its desired length, drilling jigs can be fitted. The jigs ensure a stable base and help prevent tube damaged. The integrated drill bushes specify the location of the threaded holes and guide the drill. | | | | |
| | CS-3000 (Four-part set) | | 9806935000 | | |
| | CS-3000 neXt (Three-part set) | | 9806936000 | | |
| Tube adapter for CS-3000 for special lengths without tube preparation | | | | | |
|  | Once the tube had been shortened, the adapter can be screwed to the tube. The tube adapter can then be fixed to the component and the system can be adjusted as required. Attention: Install the tube adapter only onto the housing side, see application example on page 153! Additional information is also available on page 153. | | | |  |
| | RAL 9006 white aluminium | | 1015300208 | 0.70 | |
| | RAL 7016 anthracite grey | | 1015300039 | 0.70 | |
| | | | | | |
| | | | | | |

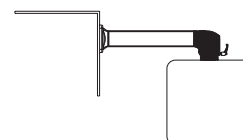
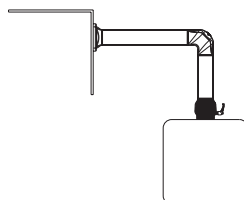
Suspension System CS-3000^{next}

| Article | | Straight coupling | | Elbow coupling | |
|----------------|----------|-------------------|--------------------------|----------------|--------------------------|
| Article number | (colour) | 1017300002 | RAL 9006 white aluminium | 1017300003 | RAL 9006 white aluminium |
| | | 1017300017 | RAL 7016 anthracite grey | 1017300018 | RAL 7016 anthracite grey |



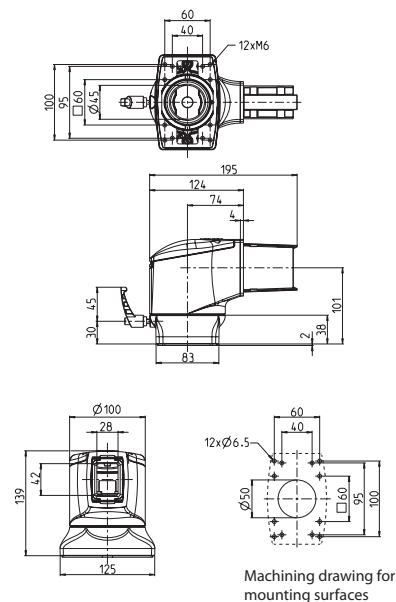
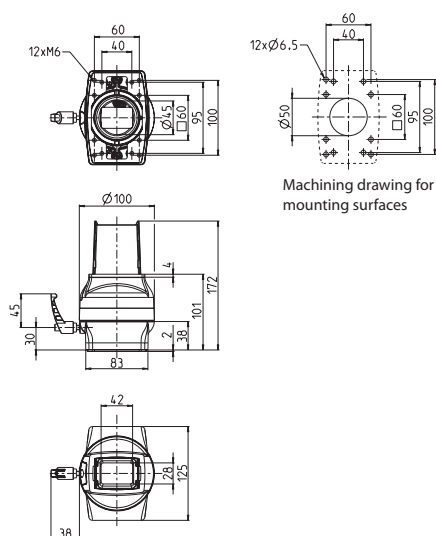
| | | |
|---|--|---|
| Details | Angle of rotation 300° with stop. Adapter (narrow enclosures) is required for attachment to enclosures < 83 mm | Angle of rotation 300° with stop, screw-fit installation opening |
| Weight in g | 1630 | 2070 |
| Material | Aluminium | Aluminium |
| Accessories (retrofitable) see page 155 | Swivel angle limiter 9806906000 | Swivel angle limiter 9806906000 Signal lamp adapter 9805400000 |

Application example

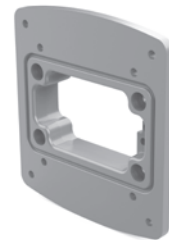


Dimensions in mm

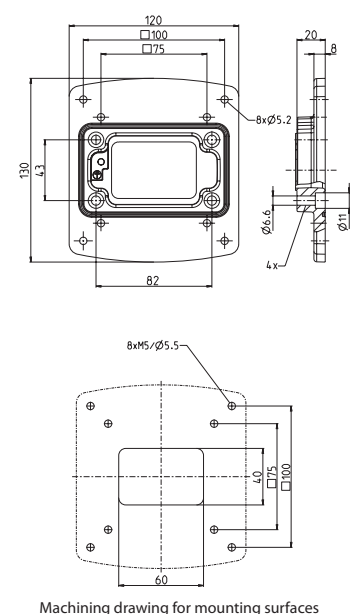
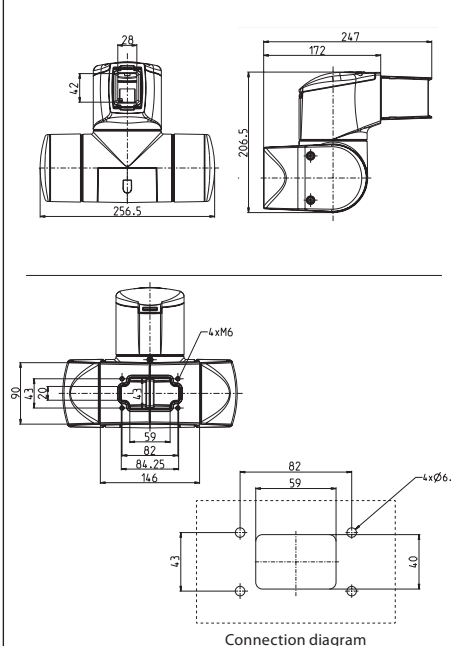
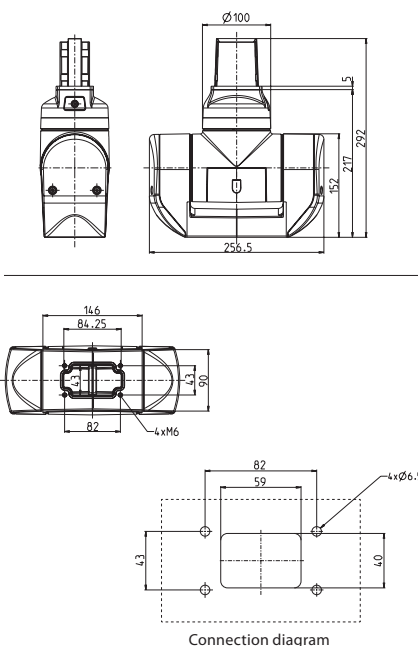
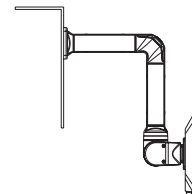
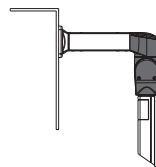
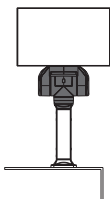
**CAD files available
at www.bernstein.eu**



| Turn/tilt coupling S | | Turn/tilt coupling W | | Adapter plate VESA 75/100 | |
|----------------------|--------------------------|----------------------|--------------------------|---------------------------|--------------------------|
| 1017300072 | RAL 9006 white aluminium | 1017300070 | RAL 9006 white aluminium | 9806000044 | RAL 9006 white aluminium |
| 1017300073 | RAL 7016 anthracite grey | 1017300071 | RAL 7016 anthracite grey | 9806000045 | RAL 7016 anthracite grey |



| | | | | | |
|---|--|---|--|--|--|
| <p>For connecting panels / displays / IPC with screw-fixed rear panel, fixing hole pattern adaptable to customer specifications.</p> <p>Angle of rotation 300° with stop</p> <p>Tilt angle with adjustable stop: +/-105° (without attachments like panel / display / IPC)</p> <p>Screw-fixed installation opening, suitable for DVI connectors</p> <p>4600</p> <p>Aluminium</p> | | <p>For connecting panels / displays / IPC with screw-fixed rear panel, fixing hole pattern adaptable to customer specifications.</p> <p>Angle of rotation 300° with stop</p> <p>Tilt angle with adjustable stop: +/-105° (without attachments like panel / display / IPC)</p> <p>Screw-fixed installation opening, suitable for DVI connectors</p> <p>5100</p> <p>Aluminium</p> | | <p>All that will be needed (in addition for the turn/tilt coupling) to connect with panels / displays / IPC to the rear side with VESA 75/100 hole pattern</p> <p>300</p> <p>Aluminium</p> | |
| Swivel angle limiter 9806906000 | | Swivel angle limiter 9806906000 | | | |
| | | Signal lamp adapter 9805400000 | | | |



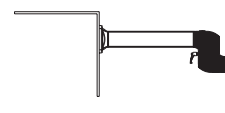
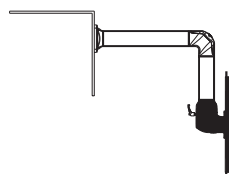
Suspension System CS-3000 next

| Article | | Panel coupling S | Panel coupling W |
|----------------|----------|--|--|
| Article number | (colour) | 1017300004 1017300019 | 1017300005 1017300020 |
| | | RAL 9006 white aluminium RAL 7016 anthracite grey | RAL 9006 white aluminium RAL 7016 anthracite grey |

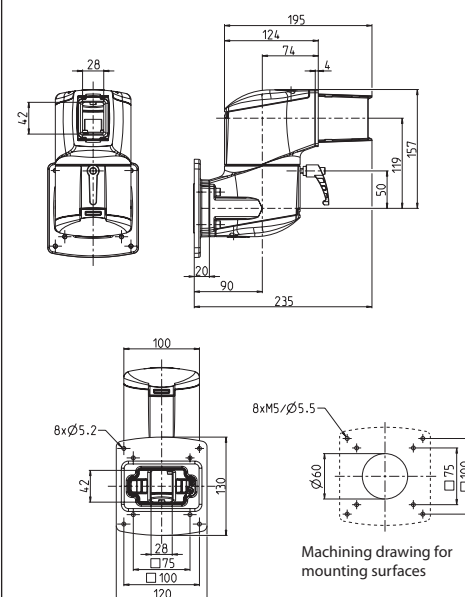
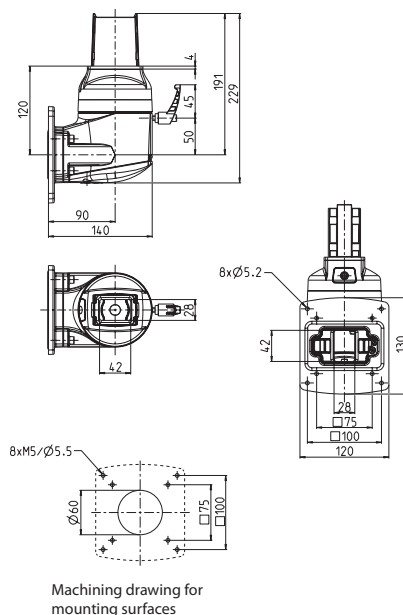


| | | |
|--|--|--|
| Details | For attachments to the rear of panels / displays or control enclosures with screw-fit rear panel. Standard hole pattern VESA 75/100 Angle of rotation 300° with stop, screw-fit installation opening | For attachments to the rear of panels / displays or control enclosures with screw-fit rear panel. Standard hole pattern VESA 75/100 Angle of rotation 300° with stop, screw-fit installation opening |
| Weight in g | 2530 | 2970 |
| Material | Aluminium | Aluminium |
| Accessories (retrofitable) see page 155 | Swivel angle limiter 9806906000 | Swivel angle limiter 9806906000 Signal lamp adapter 9805400000 |

Application example



Dimensions in mm



CAD files available
at www.bernstein.eu

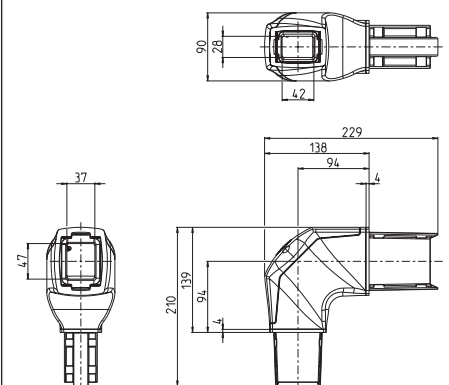
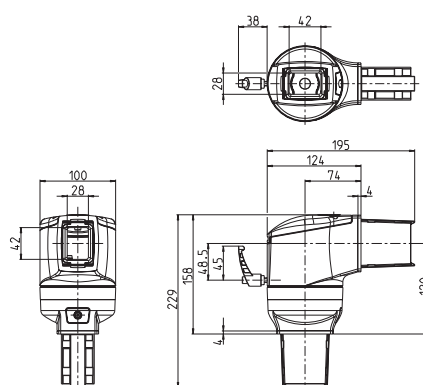
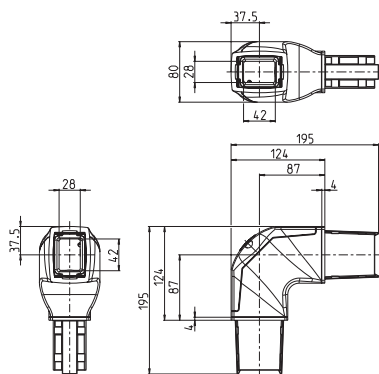
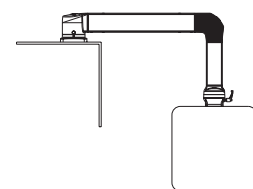
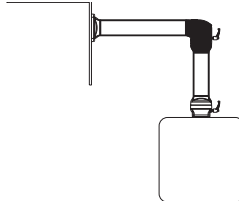
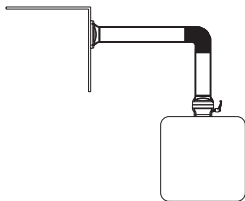
| Elbow | | Elbow, rotary | | Reducing elbow | |
|-------------------|--------------------------|-------------------|--------------------------|-------------------|--------------------------|
| 1017300007 | RAL 9006 white aluminium | 1017300008 | RAL 9006 white aluminium | 1017300009 | RAL 9006 white aluminium |
| 1017300022 | RAL 7016 anthracite grey | 1017300023 | RAL 7016 anthracite grey | 1017300024 | RAL 7016 anthracite grey |



| | | |
|--------------------------------|--|---|
| Screw-fit installation opening | Angle of rotation 300° with stop, screw-fit installation opening | Elbow coupling for combining CS-3000 neXt with the CS-3000 suspension systems, screw-fit installation opening |
|--------------------------------|--|---|

| | | |
|-----------|-----------|-----------|
| 1250 | 2320 | 1770 |
| Aluminium | Aluminium | Aluminium |

| | | | | | |
|----------------------------|-------------------|-----------------------------|-------------------|----------------------------|-------------------|
| Signal lamp adapter | 9805401000 | Swivel angle limiter | 9806906000 | Signal lamp adapter | 9805402000 |
| | | Signal lamp adapter | 9805400000 | | |



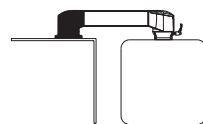
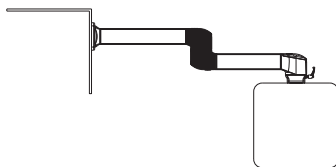
Suspension System CS-3000

| Article | | Intermediate joint | Top joint |
|----------------|----------|--|--|
| Article number | (colour) | 1017300010 1017300025 | 1017300014 1017300029 |
| | | RAL 9006 white aluminium RAL 7016 anthracite grey | RAL 9006 white aluminium RAL 7016 anthracite grey |

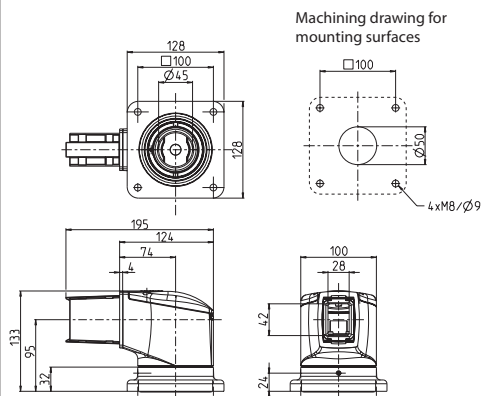
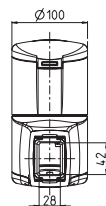
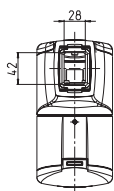
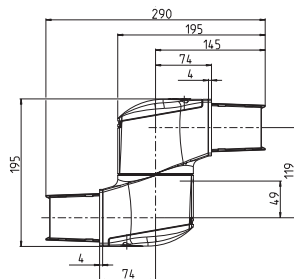


| | | |
|--|--|---|
| Details | Angle of rotation 300° with stop, 2 screw-fit installation openings | Angle of rotation 300° with stop, screw-fit installation opening |
| Weight in g | 2740 | 2200 |
| Material | Aluminium | Aluminium |
| Accessories (retrofitable) see page 155 | Swivel angle limiter 9806906000 Signal lamp adapter 9805400000 | Swivel angle limiter 9806906000 Signal lamp adapter 9805400000 |

Application example

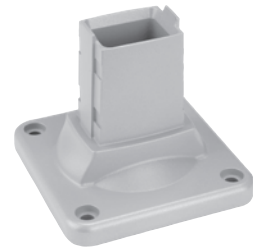
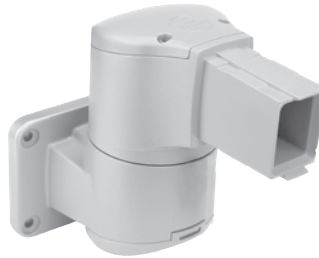


Dimensions in mm

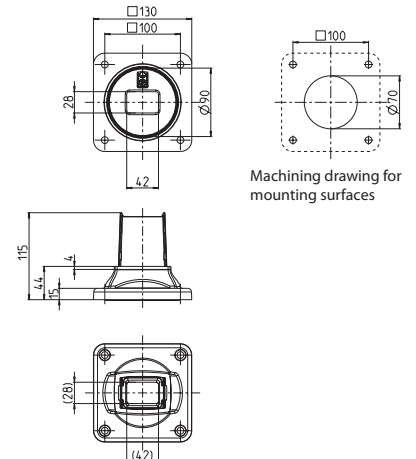
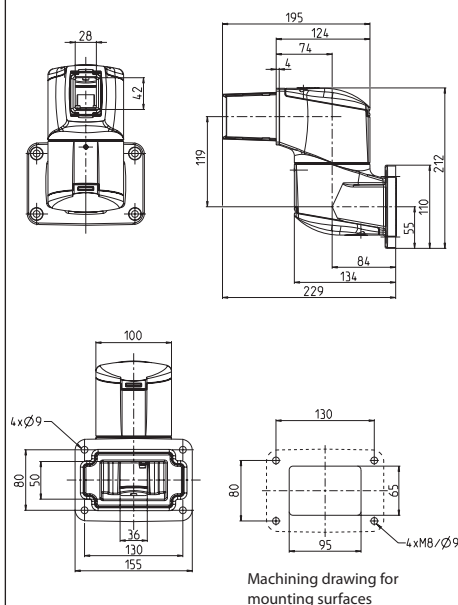
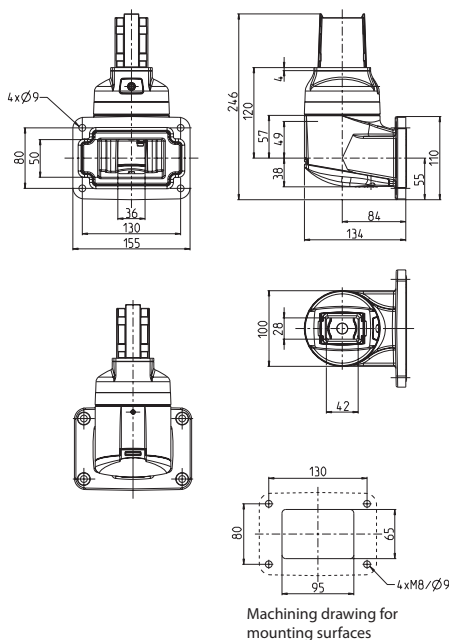
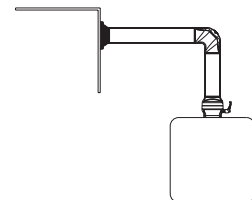
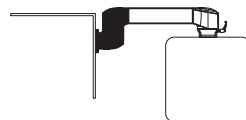
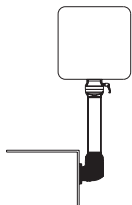


CAD files available
at www.bernstein.eu

| Wall joint S | | Wall joint W | | Base / wall flange | |
|-------------------|--------------------------|-------------------|--------------------------|--------------------|--------------------------|
| 1017300011 | RAL 9006 white aluminium | 1017300012 | RAL 9006 white aluminium | 1017300015 | RAL 9006 white aluminium |
| 1017300026 | RAL 7016 anthracite grey | 1017300027 | RAL 7016 anthracite grey | 1017300030 | RAL 7016 anthracite grey |



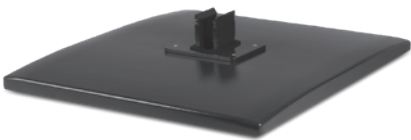
| | | | | |
|---|-------------------|--|-------------------|-----------|
| Angle of rotation 300° with stop, screw-fit installation opening | | Angle of rotation 300° with stop, 2 screw-fit installation openings | | |
| 2490 | | 2930 | | 830 |
| Aluminium | | Aluminium | | Aluminium |
| Swivel angle limiter | 9806906000 | Swivel angle limiter | 9806906000 | |
| Signal lamp adapter | 9805400000 | Signal lamp adapter | 9805400000 | |



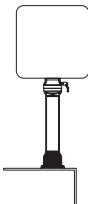

Suspension System CS-3000

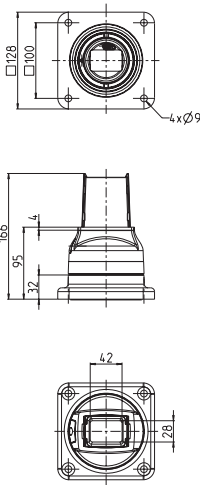
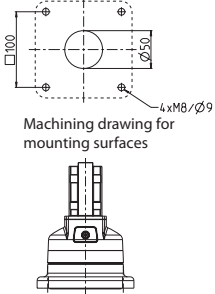
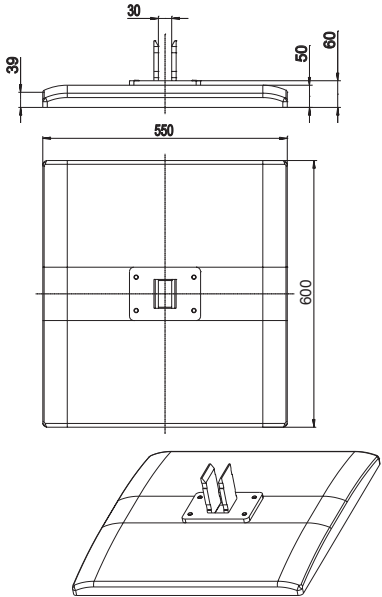
next

| Article | | Base, rotary | Large free-standing base |
|----------------|----------|--|--|
| Article number | (colour) | 1017300013 1017300028 | 1017300068 1017300069 |
| | | RAL 9006 white aluminium RAL 7016 anthracite grey | RAL 9006 white aluminium RAL 7016 anthracite grey |



| | | |
|----------------------------|----------------------------------|---------------------------------------|
| Details | Angle of rotation 300° with stop | |
| Weight in g | 1770 | 11660 |
| Material | Aluminium | Steel / Aluminium |
| Accessories (retrofitable) | Swivel angle limiter 9806906000 | Castors and support feet see page 155 |

| | | |
|---------------------|---|---|
| Application example |  |  |
|---------------------|---|---|

| | | |
|------------------|---|---|
| Dimensions in mm |   <p>Machining drawing for mounting surfaces</p> |  |
|------------------|---|---|

CAD files available at www.bernstein.eu

Adapter (narrow enclosures)

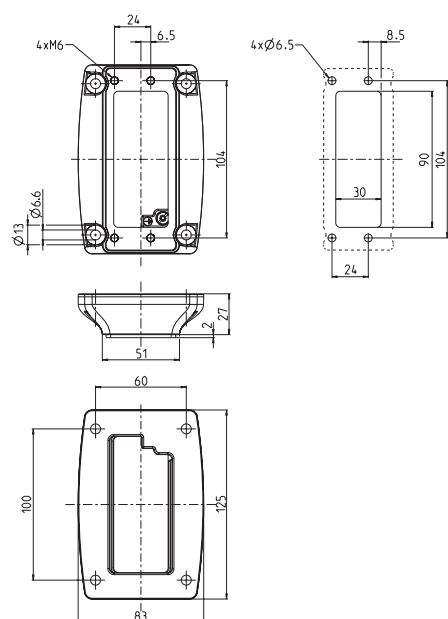
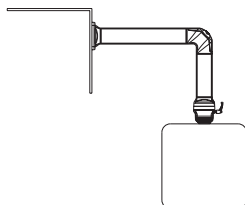
1017300001 RAL 9006 white aluminium
1017300016 RAL 7016 anthracite grey



Only to be used together with couplings.
 (for attachment to narrow enclosures with
 depths < 83 mm)

300

Aluminium



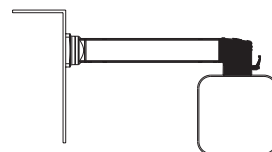
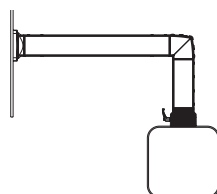
Suspension System CS-3000

| Article | | Straight coupling | Elbow coupling |
|----------------|----------|--|--|
| Article number | (colour) | 1015300177 RAL 9006 white aluminium 1015300001 RAL 7016 anthracite grey | 1015300178 RAL 9006 white aluminium 1015300002 RAL 7016 anthracite grey |



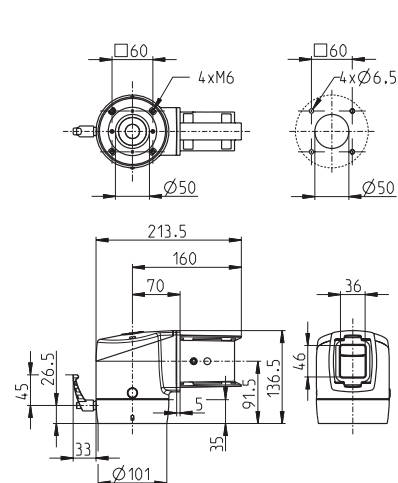
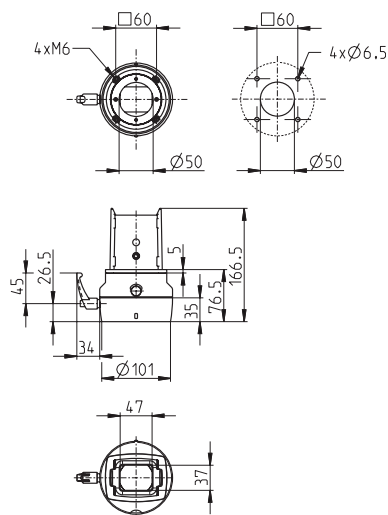
| | | |
|---|--|--|
| Details | Angle of rotation 300° with stop Adaptation on narrow enclosures < 101 mm, see page 153 | Angle of rotation 300° with stop, installation opening including screw-fit plastic cover |
| Weight in g | 1450 | 2070 |
| Material | Aluminium | Aluminium |
| Accessories (retrofitable) see pages 152, 153, 155 | Swivel angle limiter 9805296000 SIMATIC Pro® adapter RAL 9006 9806942000 SIMATIC Pro® adapter RAL 7016 9806941000 Tilt adapter 30° RAL 9006 1015300193 Tilt adapter 30° RAL 7016 1015300012 | Swivel angle limiter 9805296000 SIMATIC Pro® adapter RAL 9006 9806942000 SIMATIC Pro® adapter RAL 7016 9806941000 Tilt adapter 30° RAL 9006 1015300193 Tilt adapter 30° RAL 7016 1015300012 |

Application example



Dimensions in mm

CAD files available
at www.bernstein.eu



Turn/tilt coupling S

1015300265
1015300266

RAL 9006 white aluminium
RAL 7016 anthracite grey



Turn/tilt coupling W

1015300262
1015300263

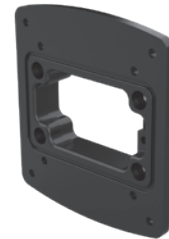
RAL 9006 white aluminium
RAL 7016 anthracite grey



Adapter plate VESA 75/100

9806000044
9806000045

RAL 9006 white aluminium
RAL 7016 anthracite grey



For connecting panels / displays / IPC with screw-fixed rear panel, fixing hole pattern adaptable to customer specifications.

Angle of rotation 300° with stop
Tilt angle with adjustable stop: $\pm 105^\circ$ (without attachments like panel / display / IPC)
Screw-fixed installation opening, suitable for DVI connectors

4700

Aluminium

For connecting panels / displays / IPC with screw-fixed rear panel, fixing hole pattern adaptable to customer specifications.

Angle of rotation 300° with stop
Tilt angle with adjustable stop: $\pm 105^\circ$ (without attachments like panel / display / IPC)
Screw-fixed installation opening, suitable for DVI connectors

5200

Aluminium

All that will be needed (in addition for the turn/tilt coupling) to connect with panels / displays / IPC to the rear side with VESA 75/100 hole pattern

300

Aluminium

Swivel angle limiter

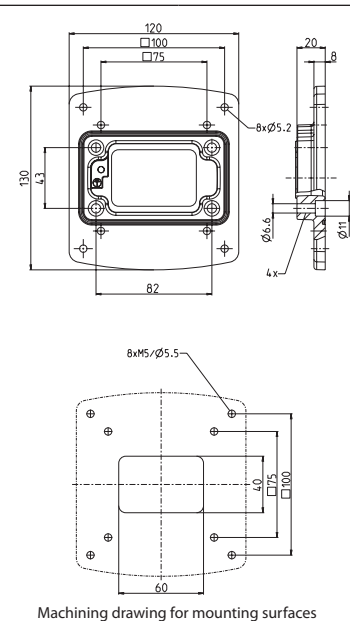
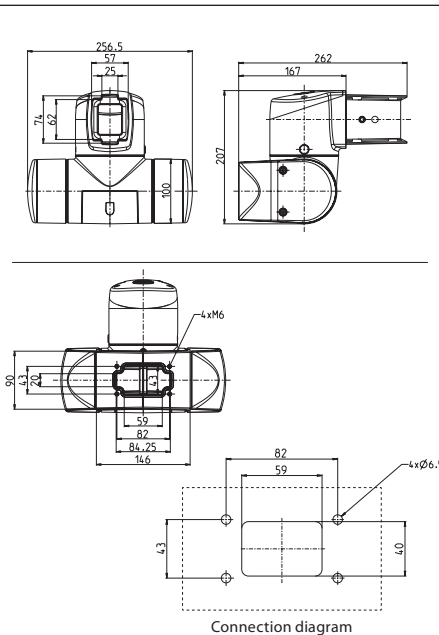
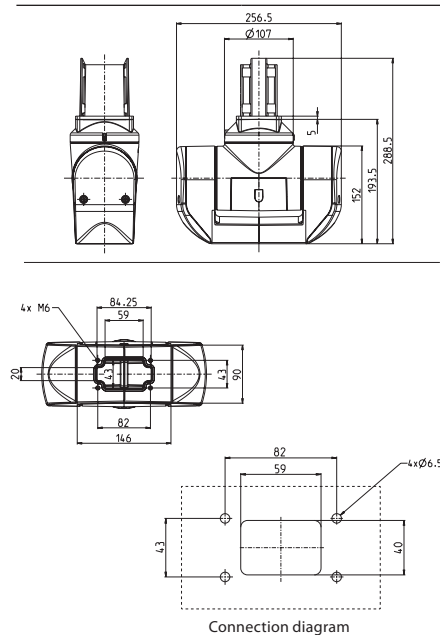
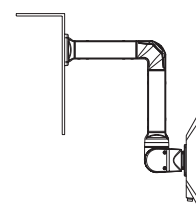
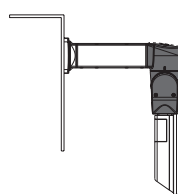
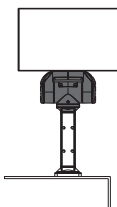
9805296000

Swivel angle limiter

9805296000

Signal lamp adapter

9805317000



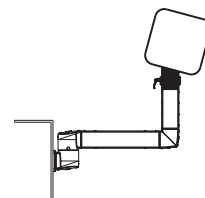
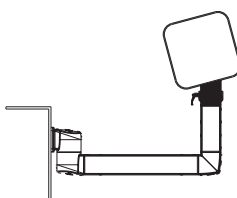
Suspension System CS-3000

| Article | | Tilt coupling 15° A | Tilt coupling 15° B |
|----------------|----------|--|--|
| Article number | (colour) | 1015300179 RAL 9006 white aluminium 1015300013 RAL 7016 anthracite grey | 1015300180 RAL 9006 white aluminium 1015300014 RAL 7016 anthracite grey |



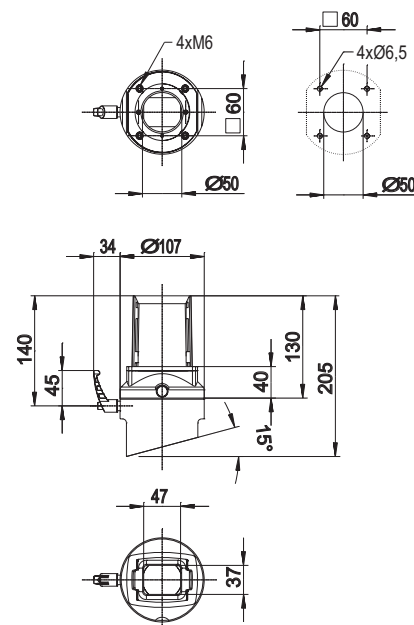
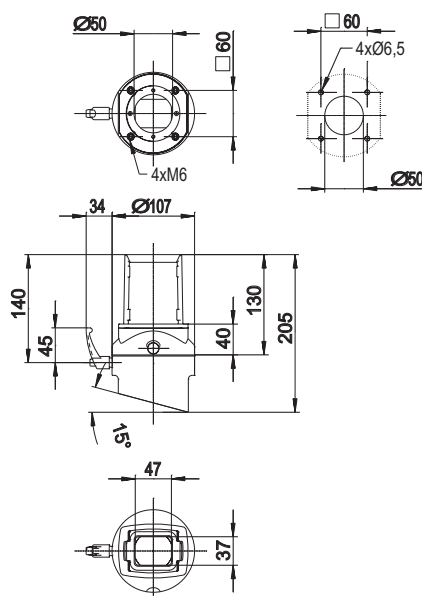
| | | |
|----------------------------|--|---|
| Details | Angle of rotation 300° with stop, fixed tilt of 15° (variant A tilted back) | Angle of rotation 300° with stop, fixed tilt of 15° (variant B tilted forward) |
| Weight in g | 1680 | 1680 |
| Material | Aluminium | Aluminium |
| Accessories (retrofitable) | Swivel angle limiter 9805296000 | Swivel angle limiter 9805296000 |
| see pages 152, 153, 155 | SIMATIC Pro® adapter RAL 9006 9806940000 | SIMATIC Pro® adapter RAL 9006 9806940000 |
| | SIMATIC Pro® adapter RAL 7016 9806939000 | SIMATIC Pro® adapter RAL 7016 9806939000 |

Application example



Dimensions in mm

CAD files available
at www.bernstein.eu



Tilt elbow coupling 15° A

1015300181 RAL 9006 white aluminium
1015300015 RAL 7016 anthracite grey


Tilt elbow coupling 15° B

1015300182 RAL 9006 white aluminium
1015300016 RAL 7016 anthracite grey


Base coupling

1015300183 RAL 9006 white aluminium
1015300017 RAL 7016 anthracite grey



Angle of rotation 300° with stop, fixed tilt of 15°, installation opening including screw-fit plastic cover (variant A tilted back)

2160
 Aluminium

Angle of rotation 300° with stop, fixed tilt of 15°, installation opening including screw-fit plastic cover (variant B tilted forward)

2160
 Aluminium

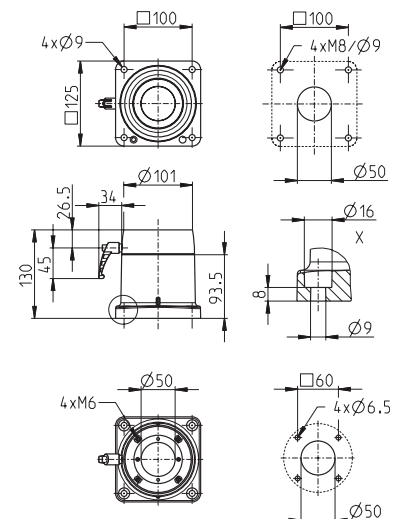
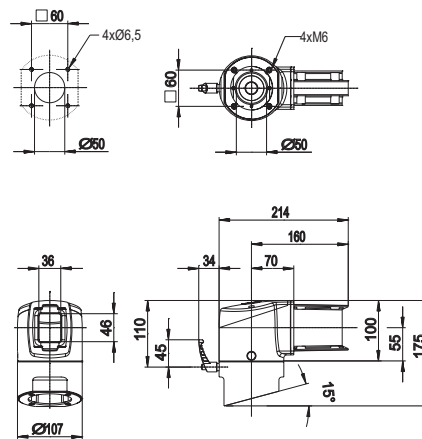
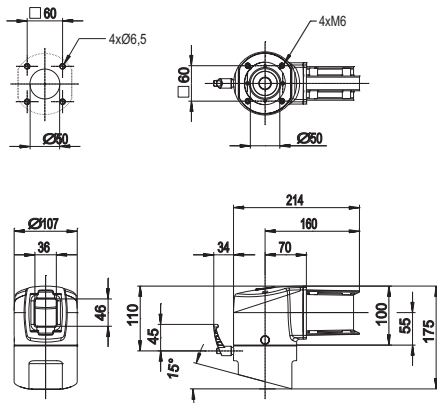
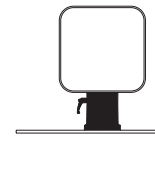
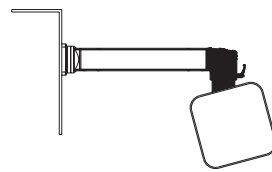
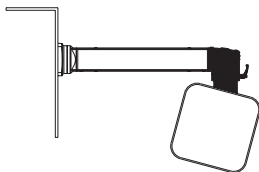
Angle of rotation 300° with stop

2120
 Aluminium

Swivel angle limiter 9805296000
SIMATIC Pro® adapter RAL 9006 9806940000
SIMATIC Pro® adapter RAL 7016 9806939000
Signal lamp adapter 9805317000

Swivel angle limiter 9805296000
SIMATIC Pro® adapter RAL 9006 9806940000
SIMATIC Pro® adapter RAL 7016 9806939000
Signal lamp adapter 9805317000

Swivel angle limiter 9805296000
SIMATIC Pro® adapter RAL 9006 9806942000
SIMATIC Pro® adapter RAL 7016 9806941000
Tilt adapter 30° RAL 9006 1015300193
Tilt adapter 30° RAL 7016 1015300012

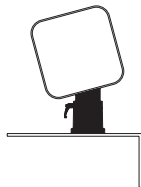
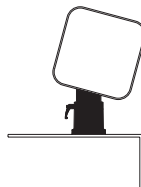


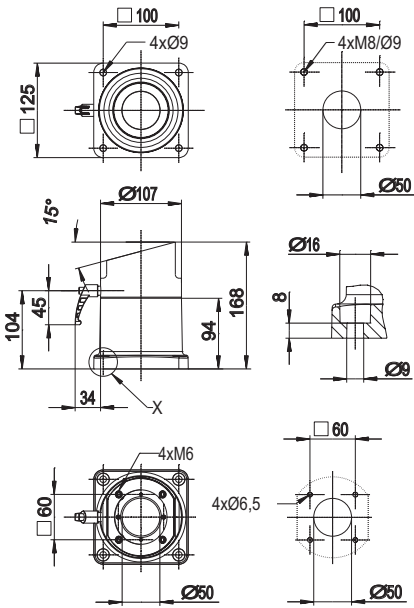
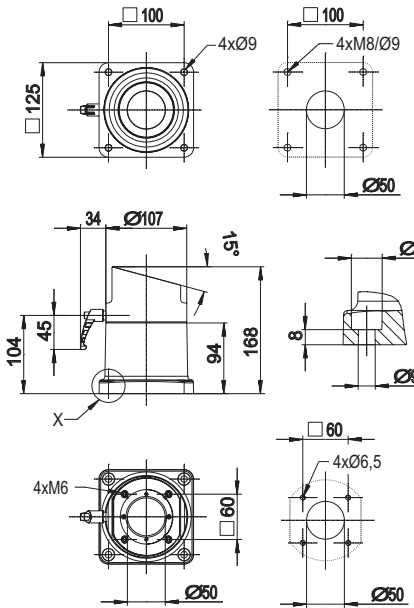
Suspension System CS-3000

| Article | | Tilt base coupling 15° A | Tilt base coupling 15° B |
|----------------|----------|--|--|
| Article number | (colour) | 1015300184 RAL 9006 white aluminium 1015300018 RAL 7016 anthracite grey | 1015300185 RAL 9006 white aluminium 1015300019 RAL 7016 anthracite grey |



| | | |
|----------------------------|---|---|
| Details | Angle of rotation 300° with stop, fixed tilt of 15° (variant A tilted back) | Angle of rotation 300° with stop, fixed tilt of 15° (variant B tilted forward) |
| Weight in g | 2340 | 2340 |
| Material | Aluminium | Aluminium |
| Accessories (retrofitable) | Swivel angle limiter 9805296000 SIMATIC Pro® adapter RAL 9006 9806940000 SIMATIC Pro® adapter RAL 7016 9806939000 | Swivel angle limiter 9805296000 SIMATIC Pro® adapter RAL 9006 9806940000 SIMATIC Pro® adapter RAL 7016 9806939000 |

| | | |
|---------------------|---|---|
| Application example |  |  |
|---------------------|---|---|

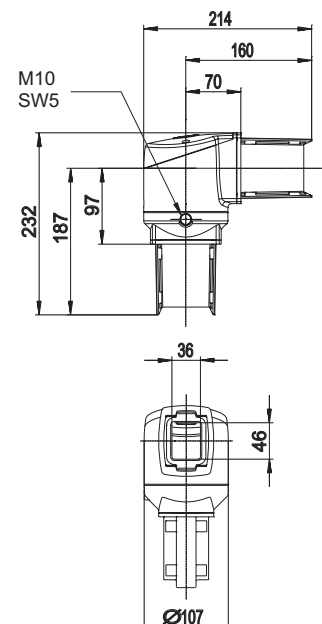
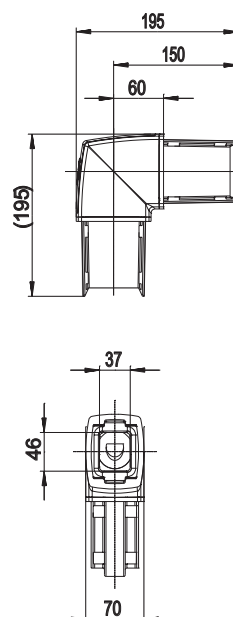
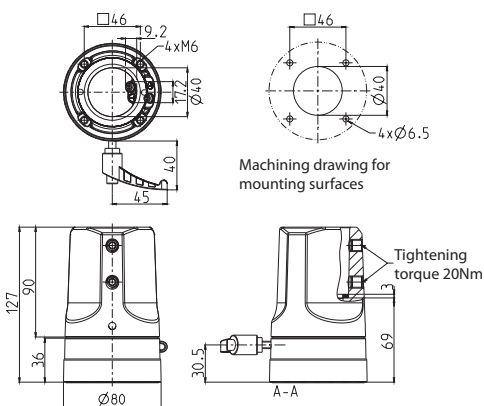
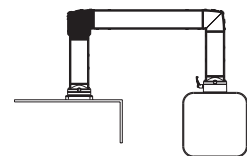
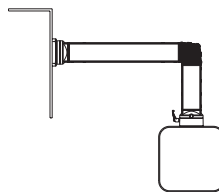
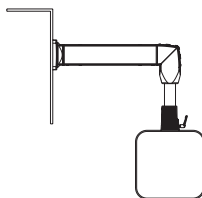
| | | |
|------------------|--|---|
| Dimensions in mm |  |  |
|------------------|--|---|

CAD files available
at www.bernstein.eu

| Coupling CS-480 B.flex | | Elbow | | Elbow, rotary | |
|------------------------|--------------------------|------------|--------------------------|---------------|--------------------------|
| 1014800001 | RAL 9006 white aluminium | 1015300195 | RAL 9006 white aluminium | 1015300196 | RAL 9006 white aluminium |
| 1014800015 | RAL 7016 anthracite grey | 1015300008 | RAL 7016 anthracite grey | 1015300009 | RAL 7016 anthracite grey |



| | | |
|---|---|--|
| Angle of rotation 300° with stop, only compatible with 48 mm round tube, adapter 9806520000 is required for attachment to 80 mm section, Connection for potential equalisation | With installation opening including screw-fit plastic cover | Angle of rotation 300° with stop, installation opening including screw-fit plastic cover |
| 960 | 1680 | 2460 |
| Aluminium | Aluminium | Aluminium |
| | Signal lamp adapter 9805318000 | Swivel angle limiter 9805296000 |
| | | Signal lamp adapter 9805317000 |



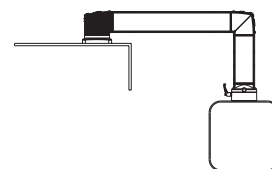
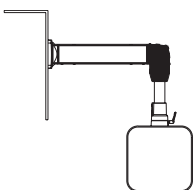
Suspension System CS-3000

| Article | | Elbow, reduced RD 48 | Top joint |
|----------------|----------|--|--|
| Article number | (colour) | 1015300197 1015300020 | 1015300198 1015300003 |
| | | RAL 9006 white aluminium RAL 7016 anthracite grey | RAL 9006 white aluminium RAL 7016 anthracite grey |

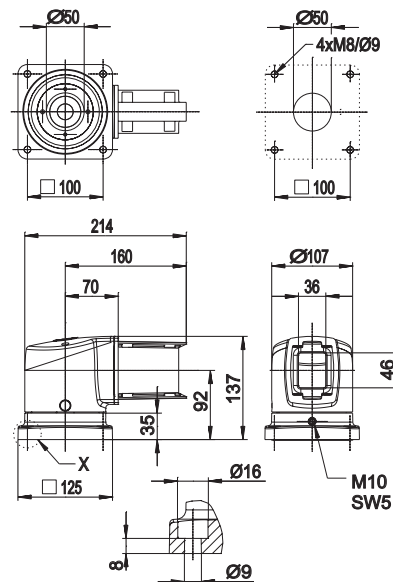
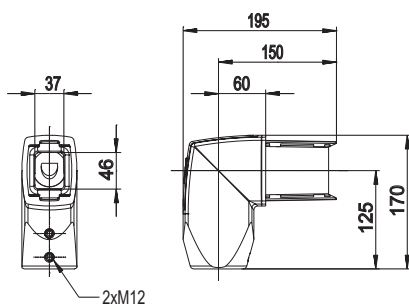
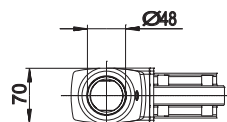


| | | |
|--|--|--|
| Details | Reducer elbow from the square tube to 48 mm round tube | Angle of rotation 300° with stop, installation opening including screw-fit plastic cover |
| Weight in g | 1920 | 2250 |
| Material | Aluminium | Aluminium |
| Accessories (retrofitable) see page 155 | Signal lamp adapter 9805318000 | Swivel angle limiter 9805296000 Signal lamp adapter 9805317000 |

Application example



Dimensions in mm

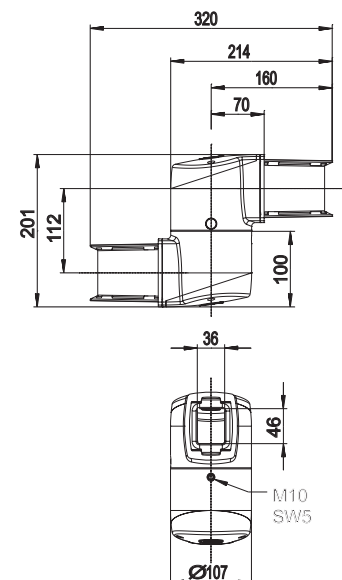
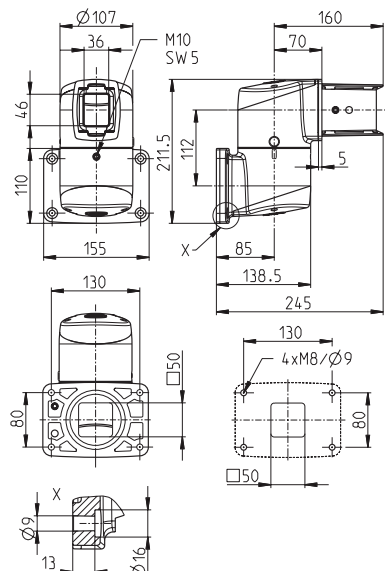
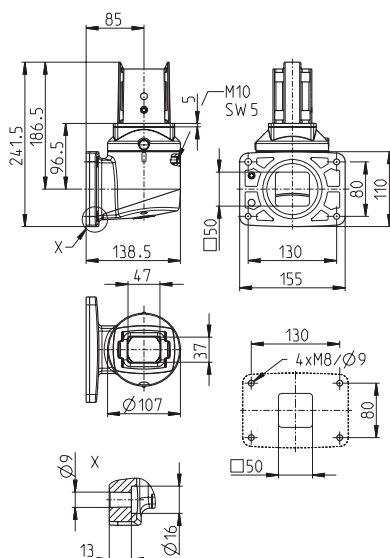
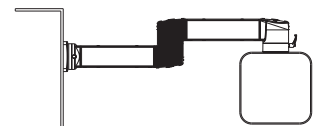
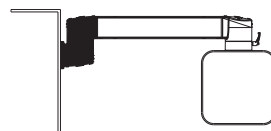
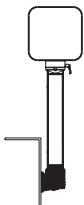


CAD files available
at www.bernstein.eu

| Wall joint S | | Wall joint W | | Intermediate joint | |
|-------------------|--------------------------|-------------------|--------------------------|--------------------|--------------------------|
| 1015300199 | RAL 9006 white aluminium | 1015300200 | RAL 9006 white aluminium | 1015300201 | RAL 9006 white aluminium |
| 1015300006 | RAL 7016 anthracite grey | 1015300007 | RAL 7016 anthracite grey | 1015300004 | RAL 7016 anthracite grey |



| | | | | | |
|---|-------------------|--|-------------------|--|-------------------|
| Angle of rotation 300° with stop, installation opening including screw-fit plastic cover | | Angle of rotation 300° with stop, 2 installation openings including screw-fit plastic covers | | Angle of rotation 300° with stop, 2 installation openings including screw-fit plastic covers | |
| 2450 | | 2930 | | 2940 | |
| Aluminium | | Aluminium | | Aluminium | |
| Swivel angle limiter | 9805296000 | Swivel angle limiter | 9805296000 | Swivel angle limiter | 9805296000 |
| Signal lamp adapter | 9805317000 | Signal lamp adapter | 9805317000 | Signal lamp adapter | 9805317000 |



Suspension System CS-3000

| Article | | CS-3000 HV module, vertically adjustable | | CS-3000 HV module, vertically adjustable | |
|----------------|----------|--|---|--|---|
| Article number | (colour) | see details see details | RAL 9006 white aluminium RAL 7016 / anodised aluminium | see details see details | RAL 9006 white aluminium RAL 7016 / anodised aluminium |



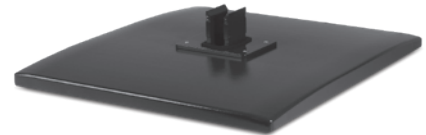
| | | | | | | | |
|----------------------------|--|------------|------------|---|------------|------------|--|
| Details | | RAL 9006 | RAL 7016 | | RAL 9006 | RAL 7016 | |
| | Module 1000/100 | 1015300202 | 1015300022 | Modul 800/100 | 1015300203 | 1015300023 | |
| | Module 1000/150 | 1015300212 | 1015300029 | Modul 800/150 | 1015300215 | 1015300030 | |
| | Module 1000/200 | 1015300213 | 1015300031 | Modul 800/200 | 1015300216 | 1015300032 | |
| | Module 1000/300 | 1015300214 | 1015300033 | Modul 800/300 | 1015300217 | 1015300034 | |
| | Modular height 1000 mm; see page 154 for detailed information on selection of suitable damper force. | | | Modular height 800 mm; see page 154 for detailed information on selection of suitable damper force. | | | |
| Weight in g | 7030 | | | 6020 | | | |
| Material | Aluminium | | | Aluminium | | | |
| Accessories (retrofitable) | | | | | | | |
| see page 155 | | | | | | | |
| | | | | | | | |

| | | |
|----------------------------|--|--|
| Application example | | |
|----------------------------|--|--|

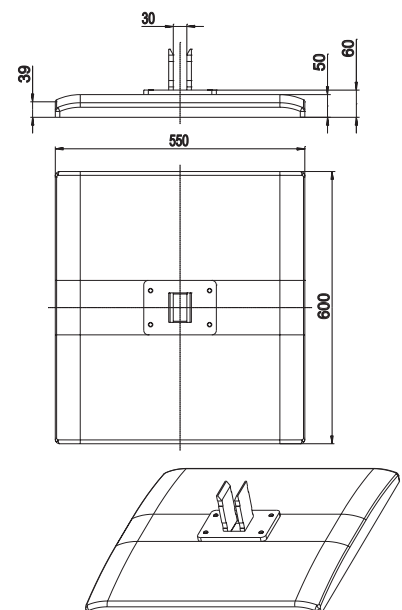
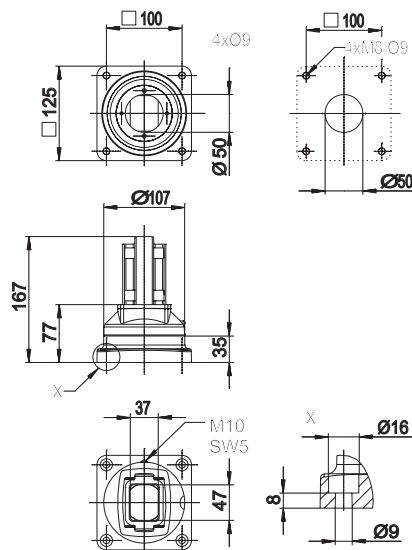
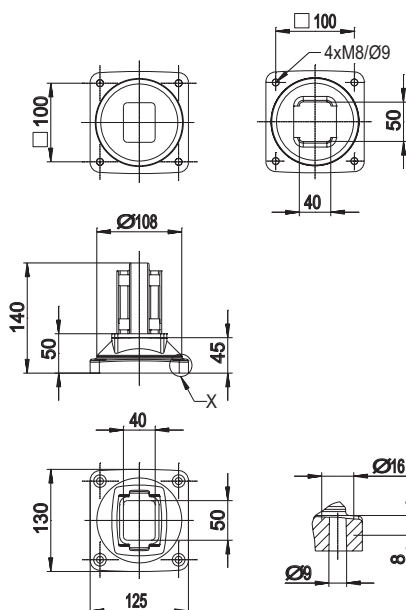
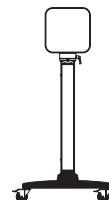
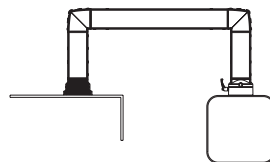
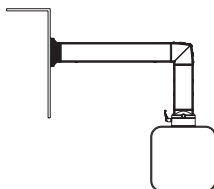
| | | |
|-------------------------|--|--|
| Dimensions in mm | | |
|-------------------------|--|--|

CAD files available
at www.bernstein.eu

| Base / wall flange | | Base, rotary | | Large free-standing base | |
|--------------------|--------------------------|-------------------|--------------------------|--------------------------|--------------------------|
| 1015300204 | RAL 9006 white aluminium | 1015300205 | RAL 9006 white aluminium | 1015300206 | RAL 9006 white aluminium |
| 1015300010 | RAL 7016 anthracite grey | 1015300005 | RAL 7016 anthracite grey | 1015300027 | RAL 7016 anthracite grey |

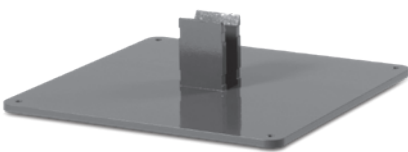


| | | |
|-----------|----------------------------------|---------------------------------------|
| | Angle of rotation 300° with stop | |
| 1300 | 1780 | 11660 |
| Aluminium | Aluminium | Steel / Aluminium |
| | Swivel angle limiter 9805296000 | Castors and support feet see page 155 |



Suspension System CS-3000

| Article | | Small free-standing base | SIMATIC Pro® Adapter |
|----------------|----------|--|--|
| Article number | (colour) | 1015300207 1015300028 | RAL 9006 white aluminium RAL 7016 anthracite grey |
| | | Article numbers see couplings page 142 onwards | |



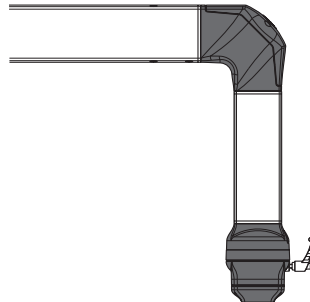
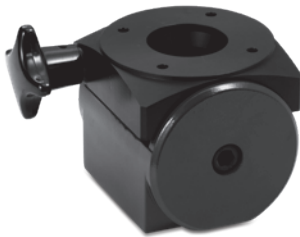
| | | |
|--|---------------------------------------|---|
| Details | | The SIMATIC Pro® Adapter is used for the direct connection between Siemens SIMATIC Pro® Displays and CS-3000 couplings and tilt couplings |
| Weight in g | 13220 | 140 |
| Material | Steel | Aluminium |
| Accessories (retrofitable) see page 155 | Castors and support feet see page 155 | |

| | | |
|---------------------|---|--|
| Application example | A diagram showing a SIMATIC Pro display mounted on a stand with casters, connected to a base plate. | |
|---------------------|---|--|

| | | |
|------------------|--|---|
| Dimensions in mm | A diagram showing the dimensions of the base plate and adapter. The base plate is 360x400 mm with a 65 mm wide central section. The adapter is 63x32 mm with 4xM10 mounting holes. | A diagram showing the dimensions of the SIMATIC Pro Adapter. The adapter is 94x63 mm with 4xM6/10 mounting holes. The central hole is 32 mm in diameter. The adapter has a 4xØ6.5 hole pattern. |
|------------------|--|---|

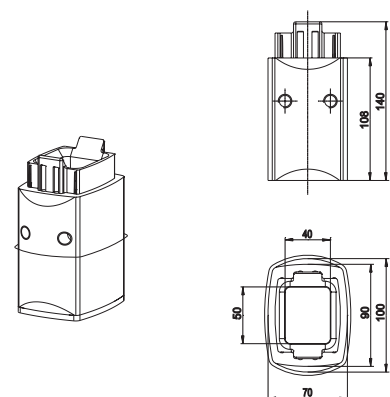
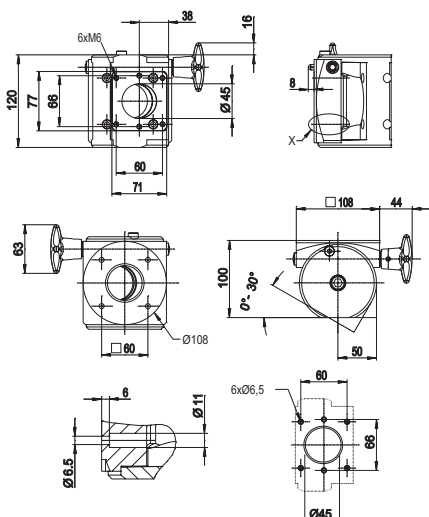
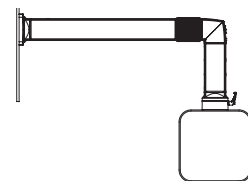
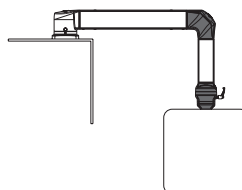
CAD files available
at www.bernstein.eu

| Tilt adapter (30° infinitely variable) | Adaptation on narrow enclosures | Tube adapter for CS-3000 |
|--|---------------------------------|--|
| 1015300193 RAL 9006 white aluminium 1015300012 RAL 7016 anthracite grey | | 1015300208 RAL 9006 white aluminium 1015300039 RAL 7016 anthracite grey |



| | | |
|---|---|---|
| Used only together with couplings; infinitely variable tilt up to 30°, maximum load max. 300 N, not compatible with straight coupling 48, page 147 as well as Siemens SIMATIC Pro® couplings | Connection to enclosures with widths < 101 mm in combination with the CS-3000 neXt suspension system; Required components: Reducing elbow, coupling, adapter for narrow enclosures see page 134 onwards | Once the tube had been shortened, the adapter can be screwed to the tube. The tube adapter can then be fixed to the component and the system can be adjusted as required Attention: Install the tube adapter only onto the housing side, see application example! |
|---|---|---|

| | | |
|-----------|----------------------|-----------|
| 1840 | Depending on version | 720 |
| Aluminium | Aluminium | Aluminium |
| | | |
| | | |



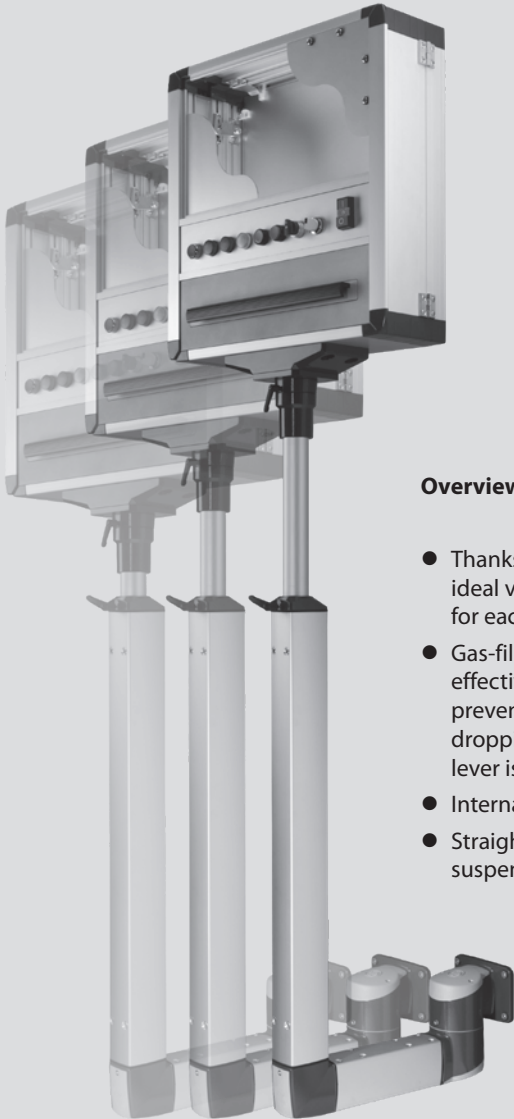
Suspension System CS-3000

CS-3000 HV – Vertically adjustable modules for optimum ergonomics

With the vertically adjustable CS-3000 HV, BERNSTEIN offers an innovative expansion to the CS-3000 suspension system. Flexible height adjustment and internal cable routing make the HV version even easier to install and operate.

With a variable lift range of 250 mm, the support system can be adjusted infinitely variable to the required working height. The integrated gas-filled damper system ensures the enclosure can be raised with minimum effort while preventing it from dropping suddenly after the clamping lever is released. This means added convenience but above all greater safety.

The CS-3000 HV is available as an optionally mobile stand base or wall-mounted version and can be easily integrated in an existing CS-3000 system.



Overview of advantages:

- Thanks to the 250 mm variable lift, the ideal viewing height can be adjusted for each operator
- Gas-filled damper system provides effective support during lifting and prevents the supported enclosure dropping suddenly after the clamping lever is released
- Internal cable routing
- Straightforward integration in CS-3000 suspension system

Selection criteria

- Selection of the size of gas-pressurised damper depends on the total weight and the ambient temperature
- The total weight is calculated from:
Enclosure + installed equipment + coupling components

Article numbers see page 150 onwards

| | | | | | |
|-----------------------------|------|---------------------|--------------------|--------------------|--------------------|
| Ambient temperature | 40°C | 100 N (6–11 kg) | 150 N (11–19 kg) | 200 N (19–29 kg) | 300 N (29–39 kg) |
| | 30°C | 100 N (5.5–10.5 kg) | 150 N (10.5–18 kg) | 200 N (18–27.5 kg) | 300 N (27.5–37 kg) |
| | 20°C | 100 N (5–10 kg) | 150 N (10–17 kg) | 200 N (17–26 kg) | 300 N (26–35 kg) |
| Damper force / total weight | | | | | |

Materials

- Anodised aluminium tubing
- Pressure die-cast aluminium components
- Polyamide covers for installation openings
- POM bearing
- Neoprene seals

Colours

- Suspension system components:
RAL 7016 anthracite grey / RAL 9006 white aluminium
- Connecting tubes: silver (natural) anodised

Accessories

| Article | Adapter flange | | Adapter plates | Signal lamp adapter |
|----------------|--|--|---|--|
| Article number | | | | |
| |  | |  |  |
| Design | For large enclosures with door section and / or keyboard 1016896000 RAL 9006 1016897000 RAL 7016 | | 9806678000 RAL 7016 For connecting adapter flange to coupling 48 9806520000 RAL 7016 Required together with coupling RD 48 for attachment to CC-4000 section 80 | For connecting commercially available 25 mm diameter signal lamps CS-3000 9805317000 for joint components 9805318000 for elbow components CS-3000 neXt 9805400000 for joint components 9805401000 for elbow components 9805402000 Reducing elbow |
| Article | Swivel angle limiter CS-3000 | CS-3000 neXt | Setscrew | Screw cover set |
| Article number | 9805296000 | 9806906000 | | |
| |  | |  |  |
| Design | CS-3000 Swivel angle limiter for coupling and joint components. Adjustable in steps of 13.7°. Contains ten ø 10 mm steel balls. CS-3000 neXt Adjustable in steps of 30°. Contains 6 swivel angle limiter. | | CS-3000 9263077000 Setscrew ISO 4029, M12 x 12 mm with hexagon socket CS-3000 neXt 9263096000 Setscrew ISO 4029, M10 x 10 mm with hexagon socket | Plastic sealing caps (colour similar to RAL 9006) for use with set screws. Set of 50 CS-3000 9806590000 CS-3000 neXt 9806000028 |
| Article | Industrial castors | Apparatus castors | Support feet | Floor anchoring brackets |
| Article number | 9808012800 | 9808015300 | 9808012900 | 9808014100 |
| |  |  |  | |
| Design | Castor set, consisting of 4 steering castors. Complete with installation material and instructions. Load-bearing capacity of each castor 50 kg. Construction height 100 mm Castors Ø 75 mm | Castor set, consisting of 4 steering castors, 2 castors with total locking. Complete with installation instructions. Load-bearing capacity of each castor 70 kg. Construction height 90 mm Castors Ø 75 mm | Vertically adjustable feet (1 set = 4 pieces). Complete with installation material and instructions. Adjustable construction height approx. 37 - 50 mm | Floor fixing kit consists of 4 mounting brackets for the large stand. Complete with installation material and instructions. |

Heavy-Duty Suspension System CS-2000 System 80

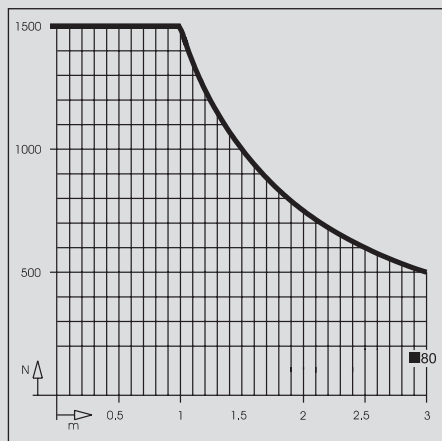
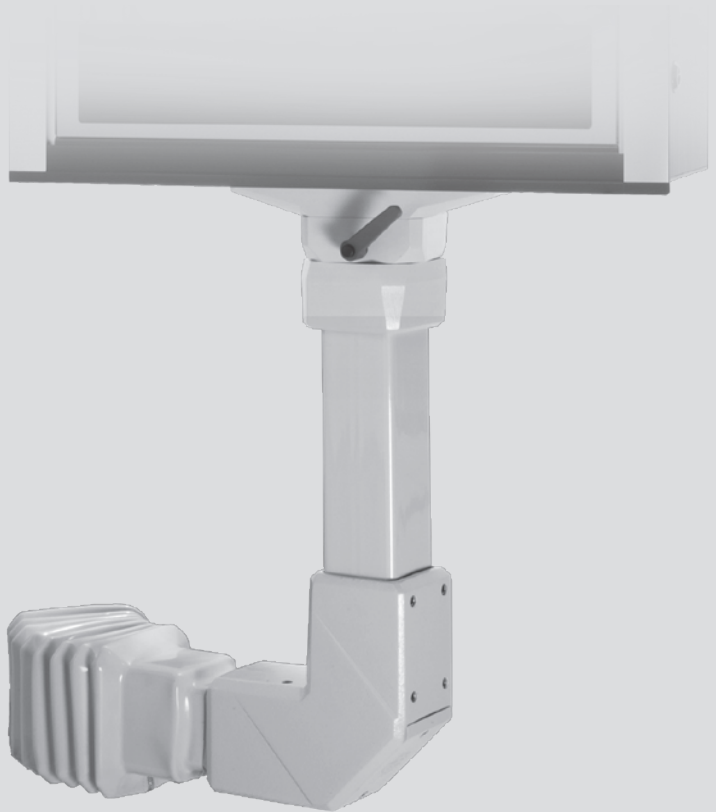
With its large number of components, the BERNSTEIN CS-2000 System 80 suspension system offers technically perfected solutions for a wide range of applications.

System structure

The following conditions are decisive for selecting the right system:

- Load of overall system
- Clear cable leadthrough if necessary
- System constellation

After determining the correct size of suspension system, the corresponding components and tubes are selected to build up the required system constellation.



Load diagram

The overview on Pages 114 / 115 is designed to help you determine the load bearing capacity of all BERNSTEIN suspension systems.

Materials

- Aluminium components: cast aluminium
- Cast steel components: GGG 40
- Welded steel structures: St 37
- Support tubes: St 37
- Bearings: St/PTFE or POM
- Seals: CR
- Installation openings: cast aluminium
- Gaiters: PVC

Colours

- Suspension system components: light grey, RAL 7035
- Gaiters: light grey, RAL 7035
- Tubing: light grey, RAL 7035

System features

- Installation openings at all joints for easy cable installation
- Integrated strain relief for gripping cables
- Maintenance-free no-play bearings in all joints and couplings
- Adjustment facilities for precisely aligning support tubes
- Wall and intermediate joints with adjustable torque and retrofitable swivel angle limiter (available as accessory)
- Flange couplings with adjustable firmness and retrofitable rotation angle limiter
- Overhead installation of all components possible

Connecting Tube CS-2000 System 80

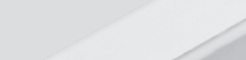


Tubing

The steel tubes for the CS-2000 System 80 suspension system are available in different lengths (tube lengths in accordance with DIN 7168).

The steel tubes are supplied powder-coated in RAL 7035 (light grey).

Weight: 11.0 kg/m

| Available tube lengths | | | |
|---|-----------|----------------|---------------|
| | Length mm | Article number | Weights in kg |
|  | 250 | 9527114000 | 2.70 |
| | 500 | 9527115000 | 5.30 |
| | 750 | 9527116000 | 8.10 |
| | 1000 | 9527117000 | 11.00 |
| | 1250 | 9527118000 | 13.50 |
| | 1500 | 9527119000 | 16.50 |
| | 2000 | 9527121000 | 21.20 |
| | 3000 | 9527123000 | 33.00 |

Notes

[illegible]

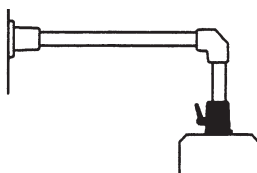
Heavy-Duty Suspension System CS-2000 System 80

| Article | | Standard coupling, flange CS-2000 | Elbow coupling, flange CS-2000 |
|----------------|----------|---|---|
| Article number | (colour) | 1016702000 RAL 7035 light grey 1016876000 RAL 9006 white aluminium | 1016705000 RAL 7035 light grey 1016877000 RAL 9006 white aluminium |

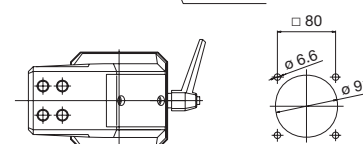
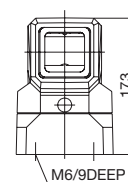
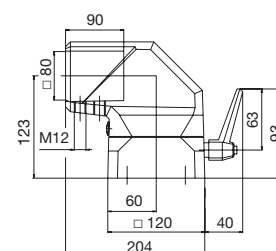
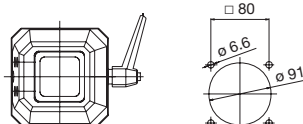
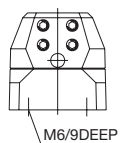
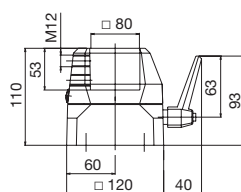


| | | |
|---|--|--|
| Details | Angle of rotation 300° with stop. Complete with seals and mounting screws. Adjustable torque | Angle of rotation 300° with stop. Complete with seals and mounting screws. Adjustable torque. Installation opening |
| Weight in g | 3270 | 4100 |
| Material | Aluminium | Aluminium |
| Accessories (retrofitable) see pages 166 / 167 | Swivel angle limiter 9805176000 | Swivel angle limiter 9805176000 Signal lamp adapter 9805189000 |

Application example



Dimensions in mm



CAD files available
at www.bernstein.eu

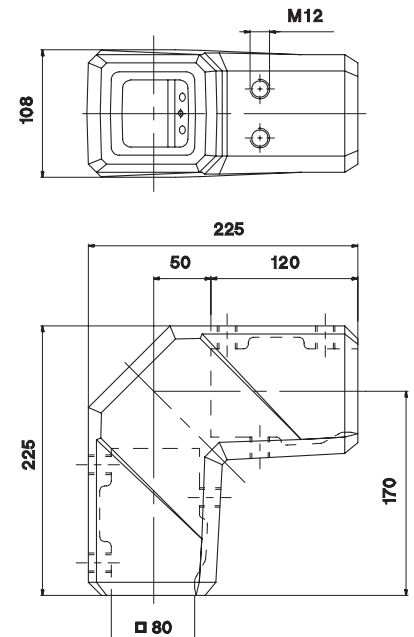
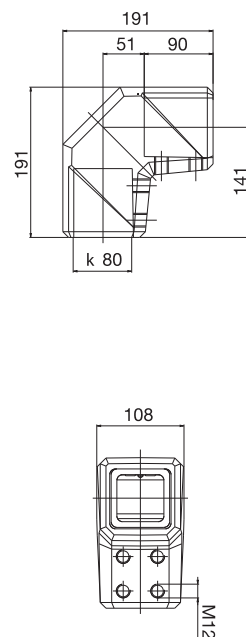
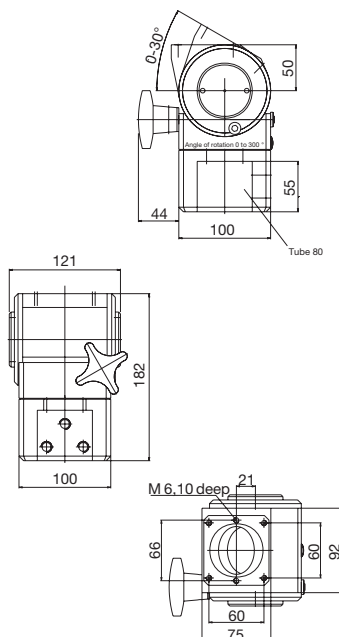
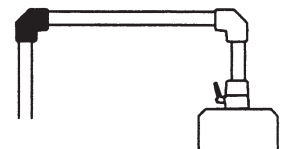
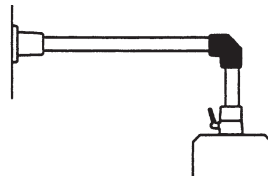
| Turn / tilt coupling CS-2000 | | Elbow CS-2000 | | Elbow for torque load CS-2000 | |
|------------------------------|--------------------------|-------------------|--------------------------|-------------------------------|--------------------------|
| 1016321000 | RAL 7035 light grey | 1016708000 | RAL 7035 light grey | 1016711000 | RAL 7035 light grey |
| 1016878000 | RAL 9006 white aluminium | 1016879000 | RAL 9006 white aluminium | 1016880000 | RAL 9006 white aluminium |



| | | |
|--|---|--|
| Angle of rotation 300° with stop. Infinitely variable inclination from 0 to 30°. Complete with seals and mounting screws | Installation opening. Complete with seals | Increased load bearing capacity. Complete with seals. Installation opening |
|--|---|--|

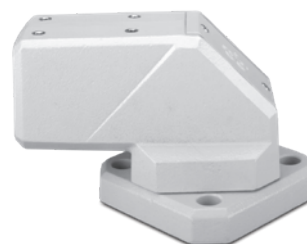
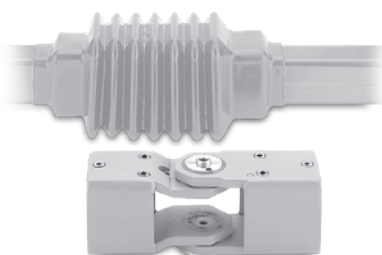
| | | |
|------------------|-----------|------|
| 2900 | 2900 | 8500 |
| Aluminium and PA | Aluminium | GGG |

| | | | | | |
|-----------------------------|-------------------|----------------------------|-------------------|----------------------------|-------------------|
| Swivel angle limiter | 9805130000 | Signal lamp adapter | 9805189000 | Signal lamp adapter | 9805189000 |
|-----------------------------|-------------------|----------------------------|-------------------|----------------------------|-------------------|



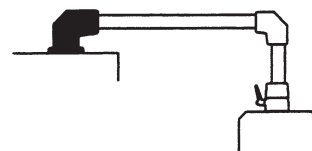
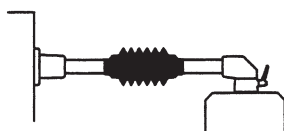
Heavy-Duty Suspension System CS-2000 System 80

| Article | | Intermediate joint CS-2000 | Top joint CS-2000 |
|----------------|----------|---|---|
| Article number | (colour) | 1016471000 RAL 7035 light grey 1016881000 RAL 9006 white aluminium | 1016714000 RAL 7035 light grey 1016882000 RAL 9006 white aluminium |



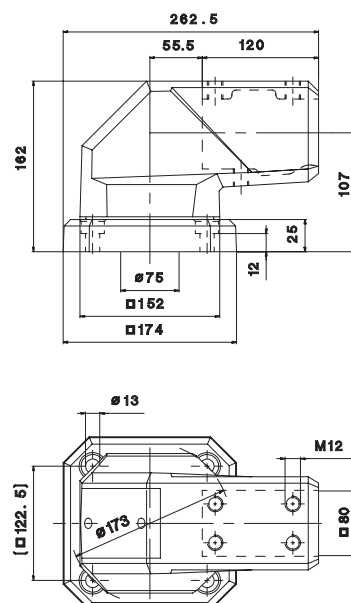
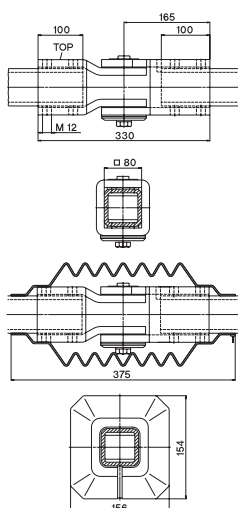
| | | |
|---|--|---|
| Details | With gaiter attached with zip fastener. Swivel angle 180° with stop on both sides. Torque adjustment | Angle of rotation 306° with stop. Complete with seals and mounting screws. |
| Weight in g | 9700 | 20620 |
| Material | Steel | GGG |
| Accessories (retrofitable) see pages 166 / 167 | Swivel angle limiter 9805062000 | Swivel angle limiter 9805177000 Signal lamp adapter 9805188000 |

Application example



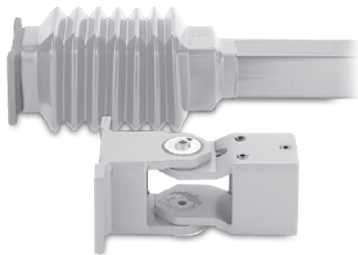
Dimensions in mm

CAD files available
at www.bernstein.eu



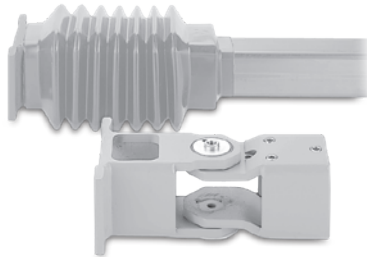
Wall joint CS-2000

1016473000 RAL 7035 light grey
1016883000 RAL 9006 white aluminium



Wall joint for cable leadthrough CS-2000

1016474000 RAL 7035 light grey
1016884000 RAL 9006 white aluminium



Wall flange CS-2000

1016472000 RAL 7035 light grey
1016885000 RAL 9006 white aluminium



With gaiter attached with zip fastener.
Swivel angle 180° with stop on both sides.
Torque adjustment

9250
Steel

With gaiter attached with zip fastener.
Swivel angle 180° with stop on both sides.
Torque adjustment

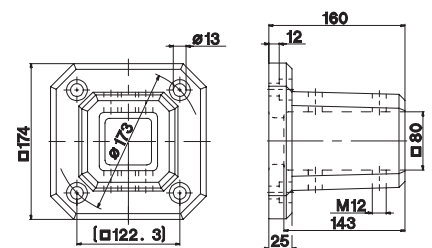
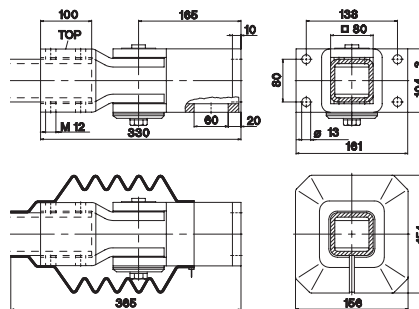
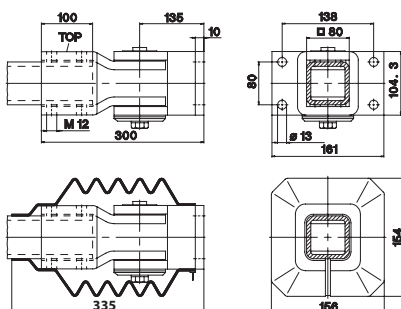
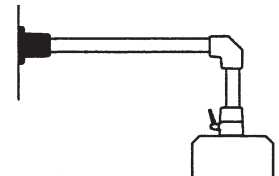
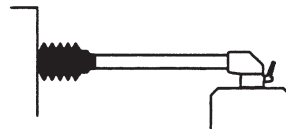
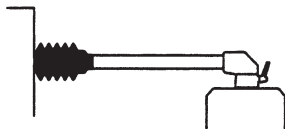
9500
Steel

Complete with seals

9100
GGG

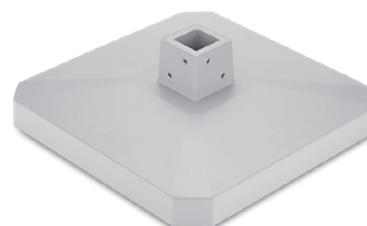
Swivel angle limiter **9805062000**

Swivel angle limiter **9805062000**



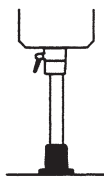
Heavy-Duty Suspension System CS-2000 System 80

| Article | | Base CS-2000 | Free-standing base CS-2000 |
|----------------|----------|---|---|
| Article number | (colour) | 1016475000 1016886000 | 1016323000 1016887000 |
| | | RAL 7035 light grey RAL 9006 white aluminium | RAL 7035 light grey RAL 9006 white aluminium |

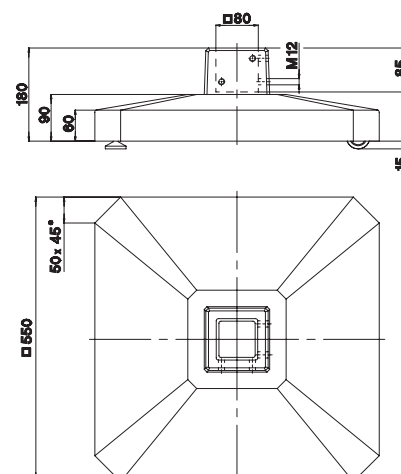
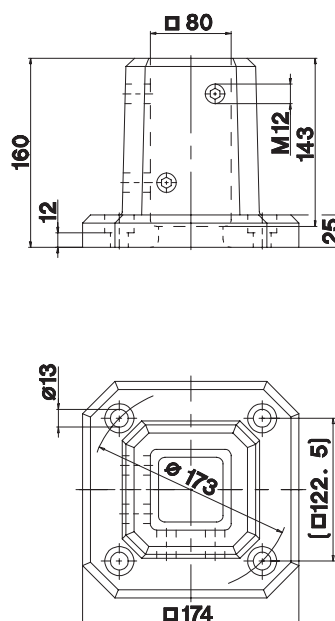


| | | |
|---|---------------------|--|
| Details | Complete with seals | For free-standing applications |
| Weight in g | 9240 | 14300 |
| Material | GGG | Aluminium |
| Accessories (retrofitable) see pages 166 / 167 | | Castors and Support feet see pages 166 / 167 |

Application example



Dimensions in mm



CAD files available
at www.bernstein.eu

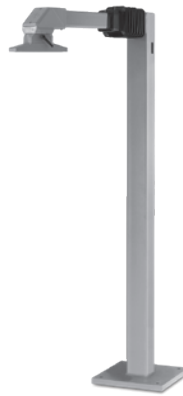
Support column, upright version

1016558000 RAL 7035 light grey
1016888000 RAL 9006 white aluminium



Support column, suspended version, 250 mm tube

1016555000 RAL 7035 light grey
1016889000 RAL 9006 white aluminium



Support column, suspended version, 500 mm tube

1016556000 RAL 7035 light grey
1016890000 RAL 9006 white aluminium



27220

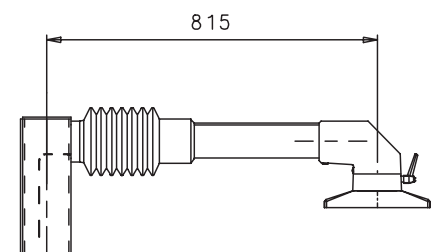
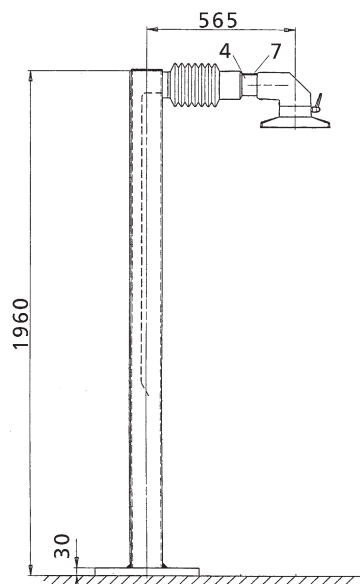
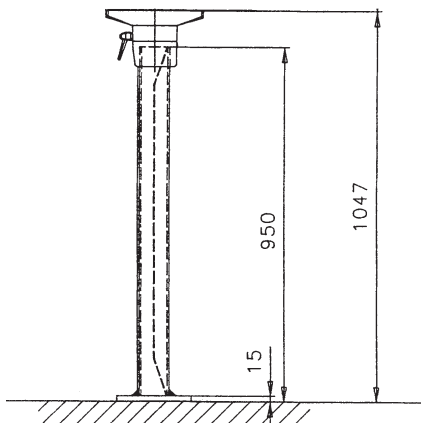
Steel / Aluminium

102000

Steel / Aluminium

105000

Steel / Aluminium



Heavy-Duty Suspension System CS-2000 System 80

| Article | | Support column, suspended version, 750 mm tube | Automotive adapter CS-2000 |
|----------------|----------|---|---|
| Article number | (colour) | 1016557000 RAL 7035 light grey 1016891000 RAL 9006 white aluminium | 1016898000 RAL 7035 light grey 1016896000 RAL 9006 white aluminium |



| | | |
|----------------------------|-------------------|-----------|
| Details | | |
| Weight in g | 41000 | 1100 |
| Material | Steel / Aluminium | Aluminium |
| Accessories (retrofitable) | | |
| see pages 166 / 167 | | |
| Application example | | |
| Dimensions in mm | | |

CAD files available
at www.bernstein.eu

Tilt adapter CS-2000 15°

1016459000
1016892000

RAL 7035 light grey
RAL 9006 white aluminium


Tilt adapter CS-2000 30°

1016460000
1016893000

RAL 7035 light grey
RAL 9006 white aluminium


Tilt adapter CS-2000 60°

1016461000
1016894000

RAL 7035 light grey
RAL 9006 white aluminium



A = 15°, B = 39

A = 30°, B = 66

A = 60°, B = 111

460

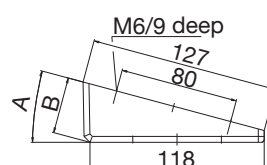
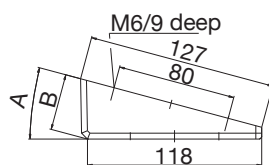
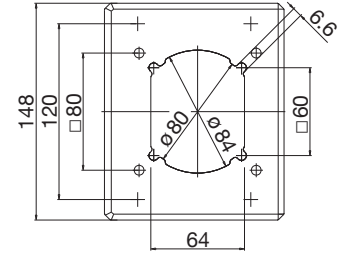
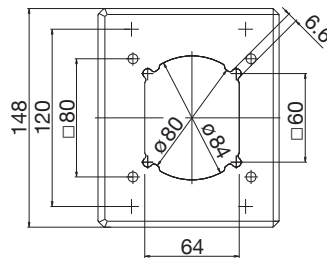
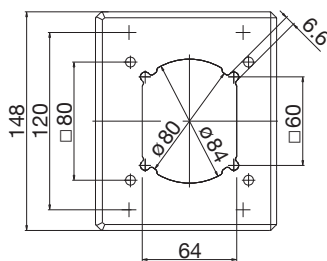
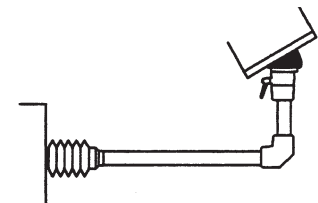
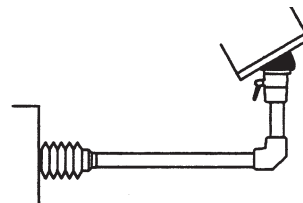
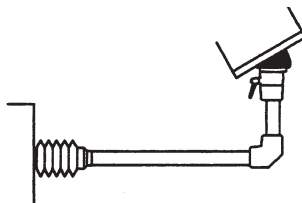
Aluminium

600

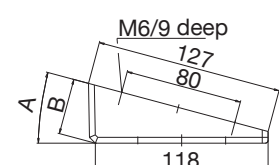
Aluminium

800

Aluminium

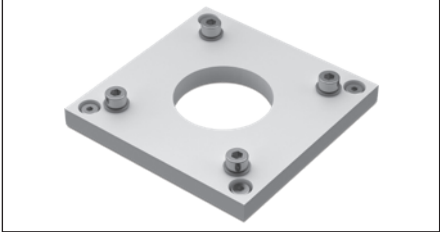
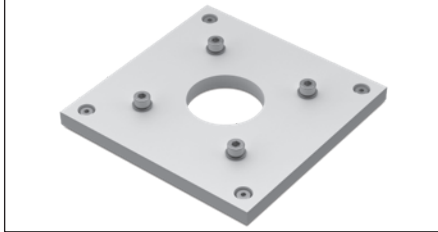

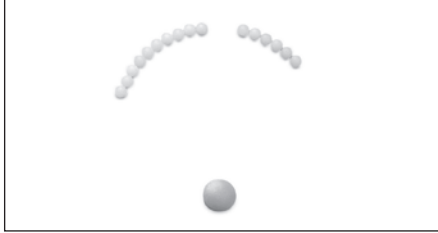




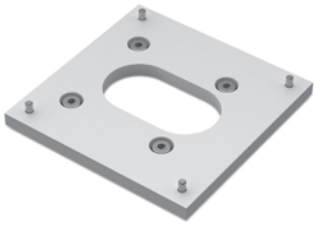
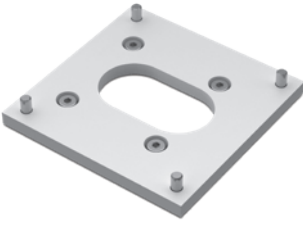

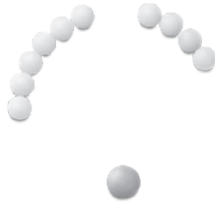
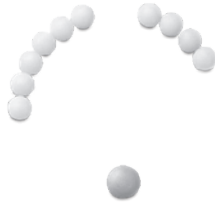




Example illustration



Example illustration

Accessories for Suspension Systems CS-2000 SL and System 80

| | | |
|---|--|---|
| Article Article number | CS-1000 VESA 75 / M4 9806675000 | CS-1000 VESA 100 / M4 9806676000 |
| |  |  |
| Design | For rear attachment of monitors or similar with VESA 75 flange on CS-1000 suspension arm system | For rear attachment of monitors or similar with VESA 100 flange on CS-1000 suspension arm system |
| Article Article number | Swivel angle limiter for coupling components, CS-2000 SL system 9805129000 | Swivel angle limiter for coupling components, CS-2000 System 80 9805176000 |
| |  |  |
| Design | Easy-to-retrofit swivel angle limiter. After installation, the balls limit the swivel angle. Adjustable in steps of 8.5°. Material PA. | Easy-to-retrofit swivel angle limiter. After installation, the balls limit the swivel angle. Adjustable in steps of 9°. Material PA. |
| Article Article number | Signal lamp adapter CS-2000 System 80 <div> Elbow components 9805189000 </div> <div> Top joint 9805188000 </div> | Signal lamp adapter CS-2000 SL 45/60 Elbow components 9806345000 |
| |  |  |
| Design | Easy-to-retrofit signal lamp adapter. Installation opening for signal lamp tubes with outside diameter of 25 mm, secured on side with setscrews. Material aluminium | Easy-to-retrofit signal lamp adapter. Installation opening for signal lamp tubes with outside diameter of 25 mm, secured on side with setscrews. Material aluminium |

| | | |
|--|---|---|
| CS-2000 SL Panel VESA 100/M4 9806677000 | CS-2000 SL Panel VESA 100/M6 9806698000 | Swivel angle limiter for wall and intermediate joints CS-2000 System 80 9805062000 |
|  |  |  |
| For rear attachment of monitors or similar with VESA 100 flange by means of CS-2000-SL panel couplings (with M4 thread for monitors) | For rear attachment of monitors or similar with VESA 100 flange by means of CS-2000-SL panel couplings (with M4 thread for monitors) | Swivel angle limiter as retrofitable accessory kit for wall and intermediate joints. Swivel angle range adjustable and fixed in steps of 15°. Material steel. |
| Swivel angle limiter for joint components System CS-2000 SL 9805132000 | Swivel angle limiter for joint components CS-2000 System 80 9805177000 | Swivel angle limiter for turn / tilt couplings System CS-2000 SL and CS-2000 System 80 9805130000 |
|  |  |  |
| Easy-to-retrofit swivel angle limiter. After installation, the balls limit the swivel angle. Adjustable in steps of 14°. Material PA | Easy-to-retrofit swivel angle limiter. After installation, the balls limit the swivel angle. Adjustable in steps of 8.5°. Material PA | Easy-to-retrofit swivel angle limiter. After installation, the balls limit the swivel angle. Adjustable in steps of 8.5°. Material PA |
| Swivel castors for large free-standing bases CS-2000 SL and CS-2000 System 80 9806044000 | Fixed castors for large free-standing bases CS-2000 SL and CS-2000 System 80 9806043000 | Adjustment feet for large free-standing bases CS-2000 SL and CS-2000 System 80 9806297000 |
|  |  |  |
| Complete with installation material and instructions for large free-standing bases. Set of 2 | Complete with installation material and instructions for large free-standing bases. Set of 2. | Complete with installation material and instructions for large free-standing bases. Set of 2 |

Stainless Steel Suspension System CS-480 NR

Product features

The CS-480 NR suspension system was specifically developed for mounting control enclosures in hygienic areas in the food and pharmaceutical industries.

Thanks to the variety of different models, the CS-480 NR ensures absolute flexibility. You have the choice between a combination of tubes shaped to customer specifications and suspension system components or, if time is pressing, you can combine the preshaped tubes and coupling sleeves available from stock with the suspension system components.



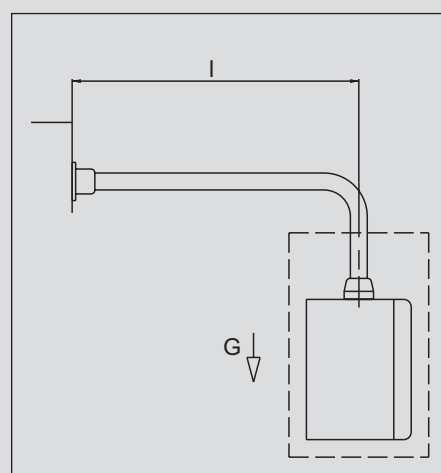
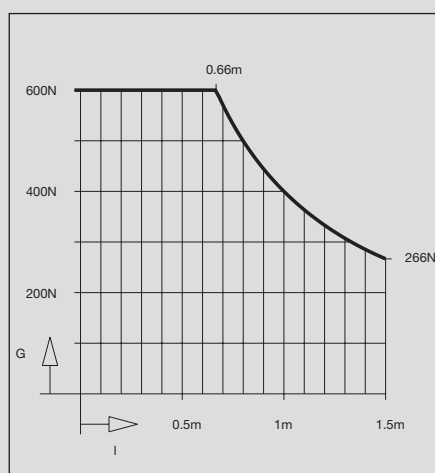
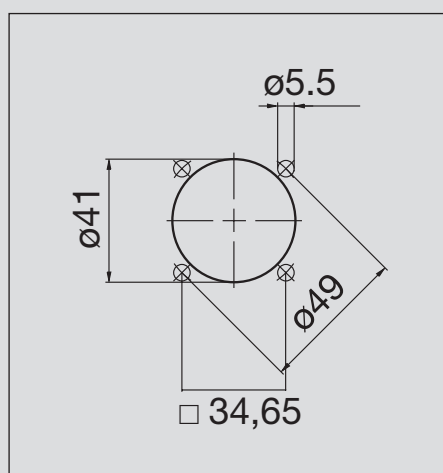
System features

- Installation openings at bearing components with horizontal outlet
- Easy mounting by clamping the support tubes
- Load bearing capacity 400 N at 1 m
- Protection class IP66/NEMA 4X
- Material 1.4305
- Torque preset at factory



Enclosure preparation for mounting couplings

The dimensions of the coupling hole pattern for preparing the enclosure are shown in the following drawing.



Materials and surfaces

Stainless steel support tubes 1.4301
 Stainless steel components 1.4305
 Bearings POM
 O-rings NBR

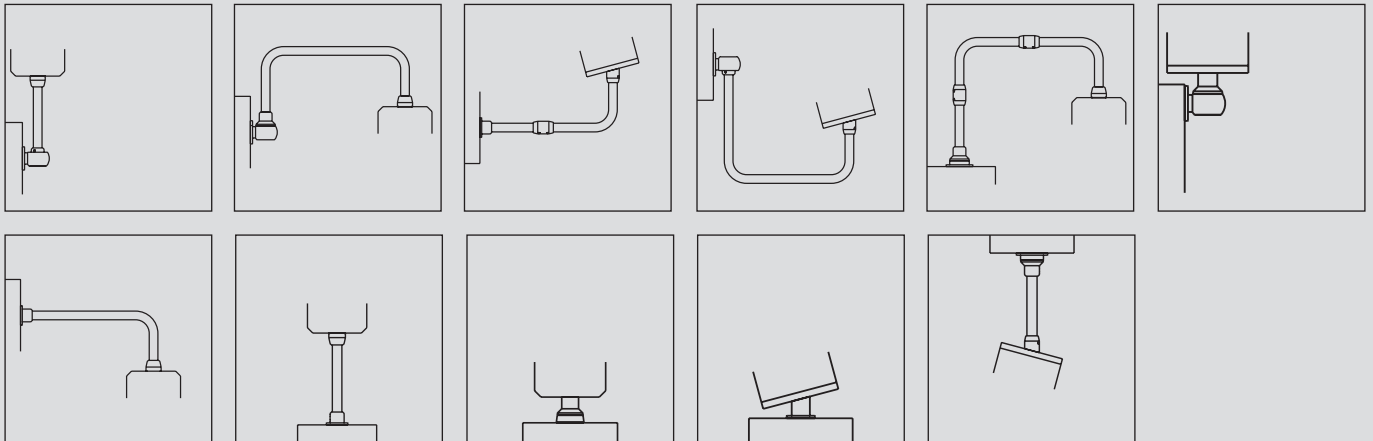
Load diagram

Refer to the diagram for the load bearing capacity of the CS-480 NR suspension system. Approval for higher loads is to be obtained separately. The system length l refers to the length specification in the diagram.

The overview on Pages 114 /115 is designed to help you determine the load bearing capacity of all BERNSTEIN suspension systems.


System combinations

The following selection illustrates the high degree of flexibility that can be achieved in configuring the suspension system:




Support tubes

Support tubes with 48.3 mm outside diameter; wall thickness 3.6 mm, straight tubes

|  | Length mm | Article number | Weights in kg |
|---|-----------|----------------|---------------|
| | 250 | 9523501000 | 1.00 |
| | 500 | 9523502000 | 1.90 |
| | 750 | 9523503000 | 2.90 |
| | 1000 | 9523504000 | 4.10 |
| | 1250 | 9523505000 | 4.90 |
| | 1500 | 9523506000 | 5.80 |

Increased flexibility with L-shaped tubes and coupling sleeves

The use of L-shaped tubes and coupling sleeves together with straight support tubes can render unnecessary time-consuming manufacture of support tubes to customer specifications, L-shaped tubes

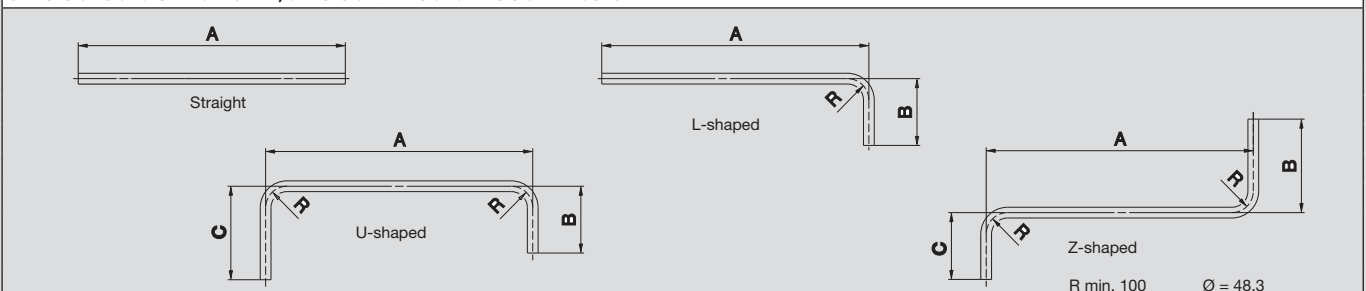
|  | 250 x 250 | 9523500001 | 1.80 |
|---|-----------------|------------|------|
| | 500 x 500 | 9523500011 | 3.60 |
| | Coupling sleeve | 1013051200 | |

Support tubes to customer specifications

Different versions of formed support tubes for the BERNSTEIN CS-480 NR suspension system are available on request. To order customised tubes simply quote the shape (e.g. straight, L-, U- or Z-shaped) and the dimensions.

Note:

Dimension B and C min. 220 mm; dimension A in U and Z version min. 320 mm



Stainless Steel Suspension System CS-480 NR

| | | |
|----------------|---|---|
| Article | Straight coupling (for attaching enclosure) | Tilt coupling (for attaching enclosure) |
| Article number | 1013050100 | 1013050300 |



| | | |
|----------------------------|--|--|
| Details | Flange coupling for mounting enclosures. Angle of rotation 340° with limit stop. Preset torque. Maintenance-free bearings. Complete with seals and mounting material | Rigid flange coupling with 15° tilt for mounting enclosures. Complete with seals and mounting material |
| Weight in g | 1400 | 1000 |
| Material | Stainless steel | Stainless steel |
| Accessories (retrofitable) | | |
| | | |

| | | |
|---------------------|--|--|
| Application example | | |
|---------------------|--|--|

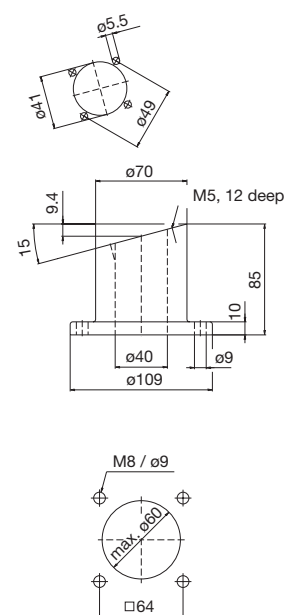
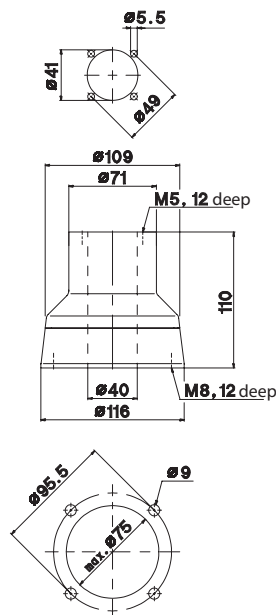
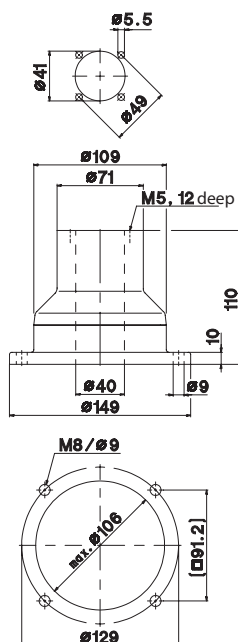
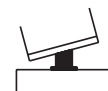
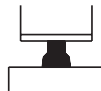
| | | |
|------------------|--|--|
| Dimensions in mm | | |
|------------------|--|--|

CAD files available
 at www.bernstein.eu

| Rotary base coupling, external mounting 1013050700 | Rotary base coupling, internal mounting 1013050800 | Base tilt coupling 1013050400 |
|---|---|----------------------------------|
|---|---|----------------------------------|



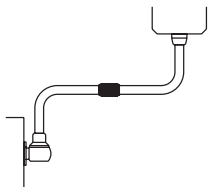
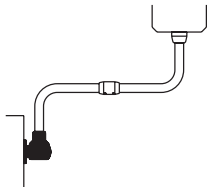
| | | |
|--|--|--|
| Rotary base coupling (external mounting) for directly mounting enclosures on machines or floors. Angle of rotation 340° with limit stop. Preset torque. Maintenance-free bearings. Complete with seals and mounting material | Rotary base coupling (internal mounting) for directly mounting enclosures on machines or floors. Angle of rotation 340° with limit stop. Preset torque. Maintenance-free bearings. Complete with seals and mounting material | Rigid tilt coupling with 15° tilt for directly mounting enclosures on horizontal surfaces. Complete with seals and mounting material |
| 4500 | 4100 | 1900 |
| Stainless steel | Stainless steel | Stainless steel |
| | | |
| | | |



Stainless Steel Suspension System CS-480 NR

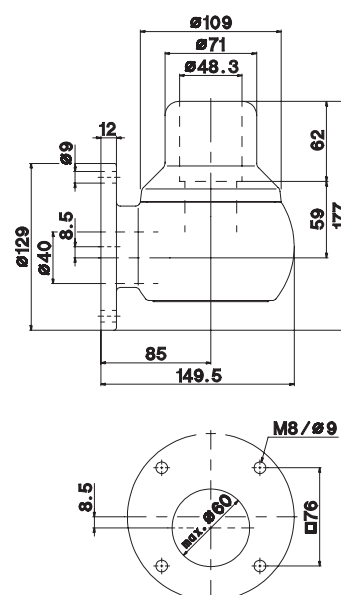
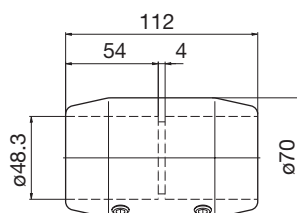
| | | |
|----------------|-----------------|--------------|
| Article | Coupling sleeve | Wall joint S |
| Article number | 1013051200 | 1013050900 |



| | | |
|----------------------------|---|---|
| Details | Coupling sleeve for easy assembly and disassembly of tube configurations. Complete with seals | Wall joint with vertical outlet for mounting on vertical surfaces. Cover for easy cable installation. Angle of rotation 340° with limit stop. Preset torque. Maintenance-free bearings. Complete with seals |
| Weight in g | 1500 | 7300 |
| Material | Stainless steel | Stainless steel |
| Accessories (retrofitable) | | |
| | | |
| Application example |  |  |

Dimensions in mm

CAD files available
at www.bernstein.eu

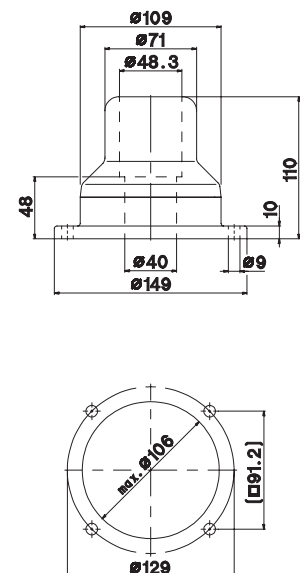
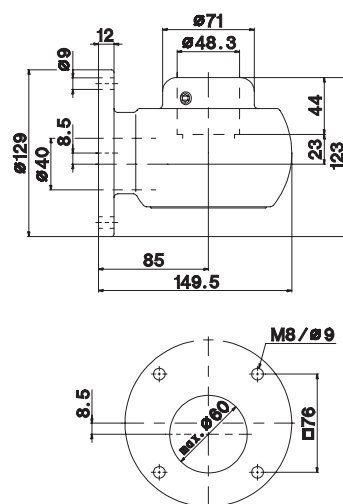
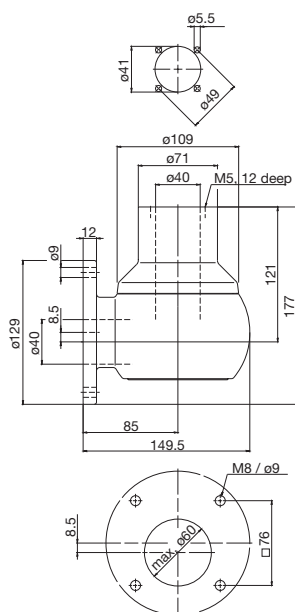
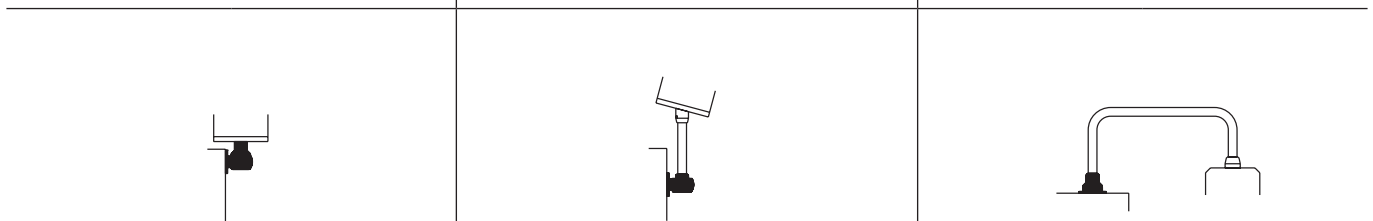


| | | |
|------------------------|-----------------------|--|
| Wall coupling S | Wall bracket S | Rotary base socket, external mounting |
| 1013051000 | 1013051100 | 1013050500 |



| | | |
|---|---|---|
| Rotary wall coupling for directly mounting on vertical machine surfaces. Angle of rotation 340° with limit stop. Cover for easy cable installation. Preset torque. Maintenance-free bearings. Complete with seals and mounting material | Wall bracket with vertical outlet for mounting on vertical surfaces. Cover for easy cable installation. Complete with seals | Rotary base for mounting on machines or floors. Angle of rotation 340° with limit stop. Preset torque. Maintenance-free bearings. Complete with seals |
|---|---|---|

| | | |
|-----------------|-----------------|-----------------|
| 7300 | 7700 | 4200 |
| Stainless steel | Stainless steel | Stainless steel |

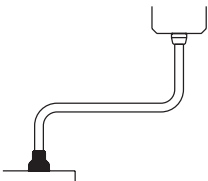
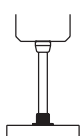


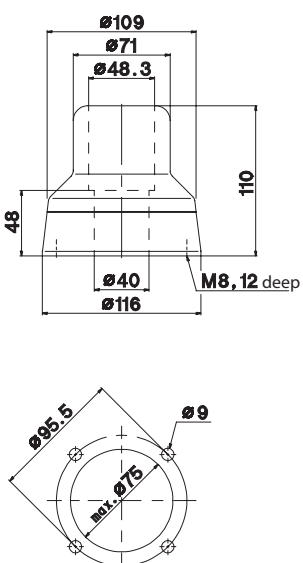
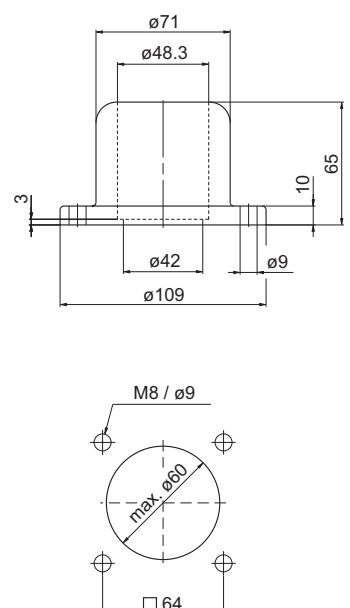
Stainless Steel Suspension System CS-480 NR

| | | |
|----------------|---------------------------------------|--------------------|
| Article | Rotary base socket, internal mounting | Base / wall flange |
| Article number | 1013050600 | 1013050200 |



| | | |
|----------------------------|---|--|
| Details | Rotary base for mounting on machines or floors. Angle of rotation 340° with limit stop. Preset torque. Maintenance-free bearings. Complete with seals | Base or wall flange for mounting on horizontal and vertical surfaces. Complete with seals |
| Weight in g | 3800 | 1400 |
| Material | Stainless steel | Stainless steel |
| Accessories (retrofitable) | | |
| | | |

| | | |
|---------------------|---|---|
| Application example |  |  |
|---------------------|---|---|

| | | |
|------------------|---|---|
| Dimensions in mm |  |  |
|------------------|---|---|

CAD files available
at www.bernstein.eu

Notes

**DETECT****We make
safety happen.****PROTECT****We keep safe
your visions.**

Contact

International Headquarters BERNSTEIN AG

Hans-Bernstein-Str. 1
32457 Porta Westfalica
Phone +49 571 793-0
Fax +49 571 793-555
info@de.bernstein.eu
www.bernstein.eu

Denmark

BERNSTEIN A/S
Phone +45 7020 0522
Fax +45 7020 0177
info@dk.bernstein.eu

France

BERNSTEIN S.A.R.L.
Phone +33 1 64 66 32 50
Fax +33 1 64 66 10 02
info@fr.bernstein.eu

Italy

BERNSTEIN S.r.l.
Phone +39 035 4549037
Fax +39 035 4549647
info@it.bernstein.eu

United Kingdom

BERNSTEIN Ltd
Phone +44 1922 744999
Fax +44 1922 457555
info@uk.bernstein.eu

Austria

BERNSTEIN GmbH
Phone +43 2256 62070-0
Fax +43 2256 62618
info@at.bernstein.eu

Switzerland

BERNSTEIN (Schweiz) AG
Phone +41 44 775 71-71
Fax +41 44 775 71-72
info@ch.bernstein.eu

Hungary

BERNSTEIN Kft.
Phone +36 1 4342295
Fax +36 1 4342299
info@hu.bernstein.eu

China

**BERNSTEIN Safe Solutions
(Taicang) Co., Ltd.**
Phone +86 512 81608180
Fax +86 512 81608181
info@bernstein-safesolutions.cn

www.bernstein.eu