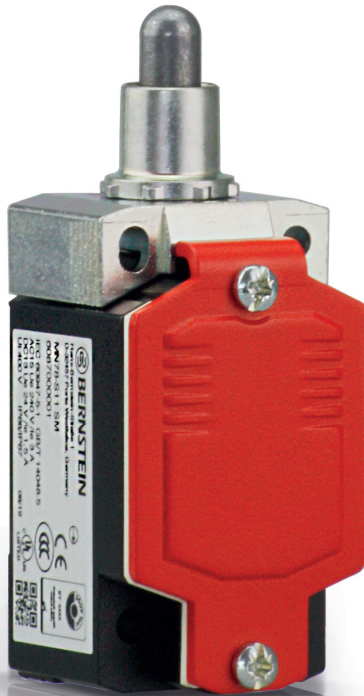


Metal enclosure Position switches Metal MN78

NEW



2 OR 4 CONTACTS

Product characteristics

- Standard switch according to DIN EN 50041, standard actuator according to DIN EN 50041
- Protection class IP66 and IP67 conforming to EN 60529
- Enclosure: Die-cast aluminium
- Cover: Aluminium
- Actuator rotatable by $8 \times 45^\circ$
- Cable entry M20 \times 1.5

Good to know ...

The MN78 is the metal version of the IN73 and designed for the use in very rough environments. A modular, robust metal enclosure with a wide range of Metalast actuators. Just as with the IN73, the MN78 offers additional fixing holes for safe installation.

It can be equipped with the C14 or C17 switch insert (2 contacts or 4 contacts).

Rough environments, outdoor areas, or high mechanical loads are all no problem for the MN78.

Technical design

- Slow- and snap action
- **Versions:**
 With C14 switch insert: 2 NC, 2 NO, 1 NC/1 NO
 With C17 switch insert: 4 NO, 4 NC, 2 NO/2 NC
 1 NC/3 NO and 3 NC/1 NO

Technical data

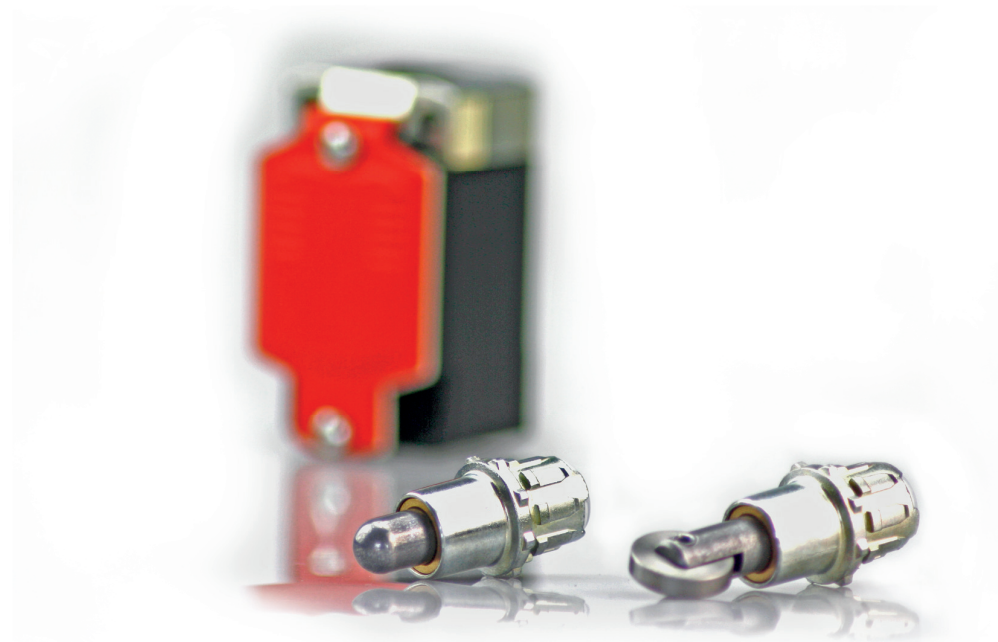
Electrical data		
Design insulation voltage	U_i max.	400 V AC
Conventional thermoelectric current	(up to) I_{the}	5 A
Rated operating voltage	U_e max.	240 V AC / 24 V DC
Utilisation category (up to)		AC-15, U_e/I_e 240 V/3 A DC-13 U_e/I_e 24 V/1.5 A (B300 Table A.1)
Short circuit protection (up to)		Safety fuse 4 A gG
Protection class		II, protective insulation
Mechanical data		
Enclosure material		Metal, glass-fibre reinforced (UL 94-V0)
Ambient temperature		-30 °C to +75 °C
Mechanical lifetime (up to)		30 × 10 ⁶ switching cycles
B10d NC Contact cycles (up to)		20 million
B10d NO Contact cycles (up to)		1 million
Switching frequency		≤ 60/min.
Type of connection		4 screwed connections (M3)
Conductor cross-sections		Single-wire 0.5 – 1.5 mm ² or strand with wire-end ferrule 0.5 – 1.5 mm ²
Cable entry		1 × M20 × 1.5
Protection class		IP66/IP67 according to EN 60529; DIN VDE 0470 T1
Standards		
VDE 0660 T211, DIN EN 60947-5-4, IEC 60947-5-4 DIN EN ISO 13849-1, DIN EN ISO 13849-2		
① Depending on switching system		

Options

- Available with M12 connector
- Customised cables and connectors are available on request

Mounting

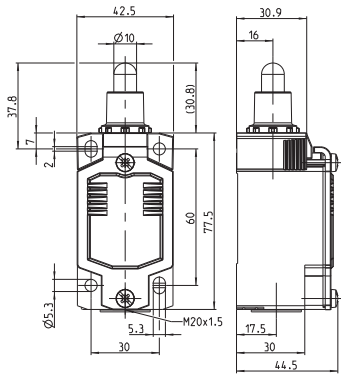
- 2 screws M5, adjustment with oval holes
- 2 screws M5 for safety applications without additional fixation required



POSITION SWITCHES METAL MN78

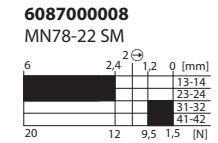
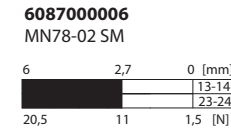
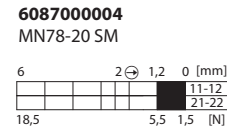
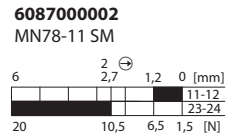
MN78-... SM

Replacement actuator: 3918022415

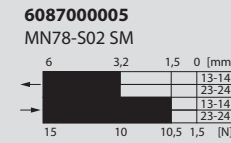
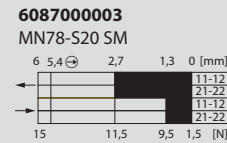
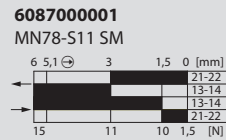


	1 NC / 1 NO	2 NC	2 NO	2 NC / 2 NO
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Slow-action system

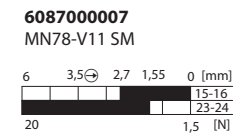
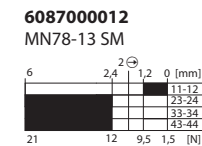
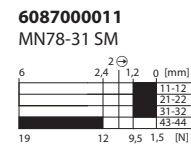
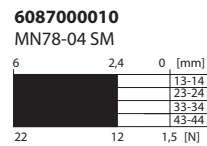
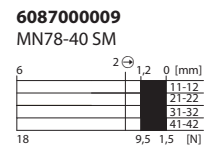


Snap-action system



	4 NC	4 NO	3 NC / 1 NO	1 NC / 3 NO	1 NC / 1 NO overlapping
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Slow-action system



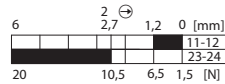
Replacement actuator: 3918172417

MN78-... RM

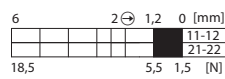
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Slow-action system

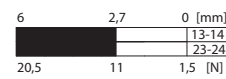
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MN78-11 RM



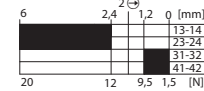
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MN78-20 RM



608700018
MN78-02 RM



608700020
MN78-22 RM

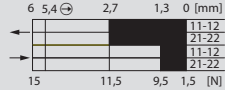


Snap-action system

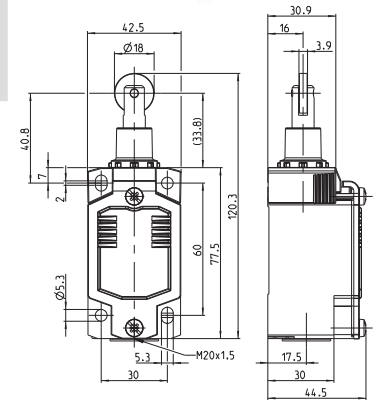
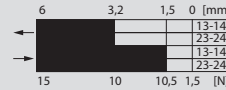
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MN78-S11 RM



608700015
MN78-S20 RM



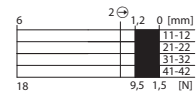
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MN78-S02 RM



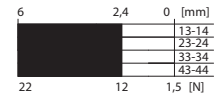
	4 NC	4 NO	3 NC / 1 NO	1 NC / 3 NO	1 NC / 1 NO overlapping
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Slow-action system

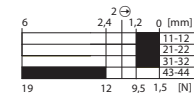
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MN78-40 RM



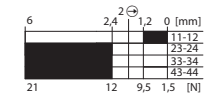
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MN78-04 RM



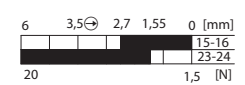
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MN78-31 RM



608700024
MN78-13 RM



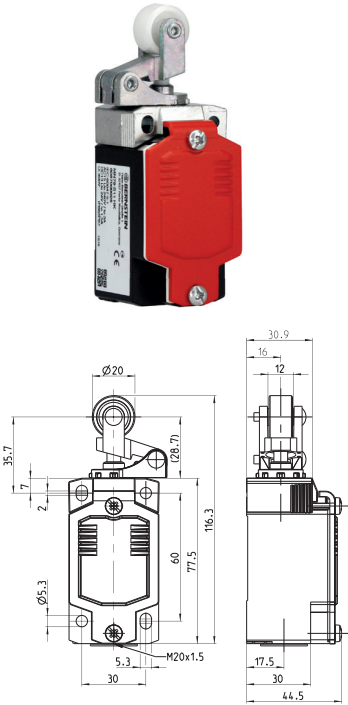
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MN78-V11 RM



POSITION SWITCHES METAL MN78

MN78-... HK

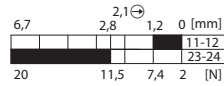
Replacement actuator: 3918202432



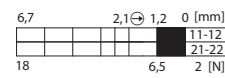
	1 NC / 1 NO	2 NC	2 NO	2 NC / 2 NO
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Slow-action system

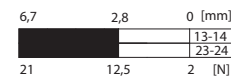
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MN78-11 HK



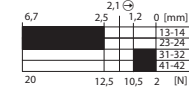
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MN78-20 HK



6087000030
MN78-02 HK

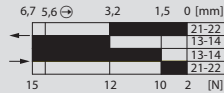


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MN78-22 HK

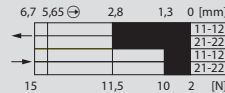


Snap-action system

6087000025
MN78-S11 HK



6087000027
MN78-S20 HK



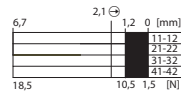
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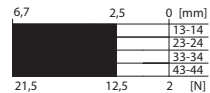
	4 NC	4 NO	3 NC / 1 NO	1 NC / 3 NO	1 NC / 1 NO overlapping
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Slow-action system

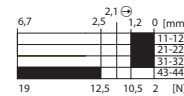
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MN78-40 HK



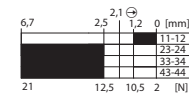
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MN78-04 HK



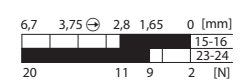
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MN78-31 HK



6087000036
MN78-13 HK



6087000031
MN78-V11 HK

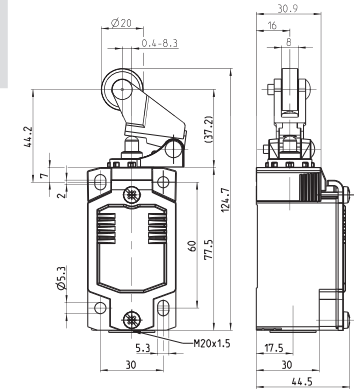




Replacement actuator: 3918202428

MN78-... DGHK

	1 NC / 1 NO	2 NC	2 NO	2 NC / 2 NO
Slow-action system	6087000038 MN78-11 DGHK 	6087000040 MN78-20 DGHK 	6087000042 MN78-02 DGHK 	6087000044 MN78-22 DGHK
Snap-action system	6087000037 MN78-S11 DGHK 	6087000039 MN78-S20 DGHK 	6087000041 MN78-S02 DGHK 	

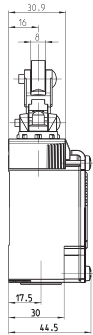
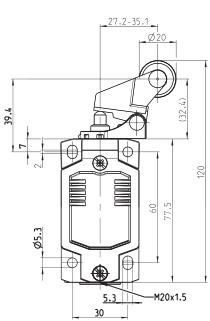
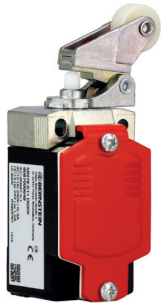


	4 NC	4 NO	3 NC / 1 NO	1 NC / 3 NO	1 NC / 1 NO overlapping
Slow-action system	6087000045 MN78-40 DGHK 	6087000046 MN78-04 DGHK 	6087000047 MN78-31 DGHK 	6087000048 MN78-13 DGHK 	6087000043 MN78-V11 DGHK

POSITION SWITCHES METAL MN78

MN78-... DGKK

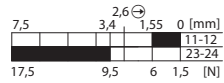
Replacement actuator: 3918202430



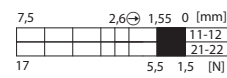
	1 NC / 1 NO	2 NC	2 NO	2 NC / 2 NO
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Slow-action system

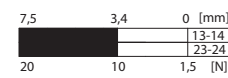
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MN78-11 DGKK



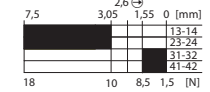
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MN78-20 DGKK



6087000054
MN78-02 DGKK

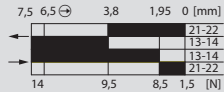


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MN78-22 DGKK

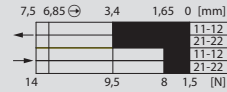


Snap-action system

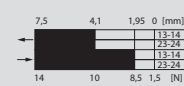
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MN78-S20 DGKK



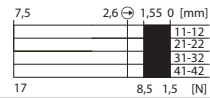
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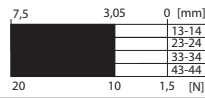
	4 NC	4 NO	3 NC / 1 NO	1 NC / 3 NO	1 NC / 1 NO overlapping
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Slow-action system

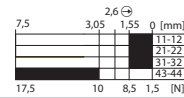
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MN78-40 DGKK



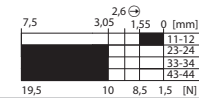
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MN78-04 DGKK



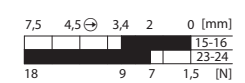
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MN78-31 DGKK



6087000060
MN78-13 DGKK



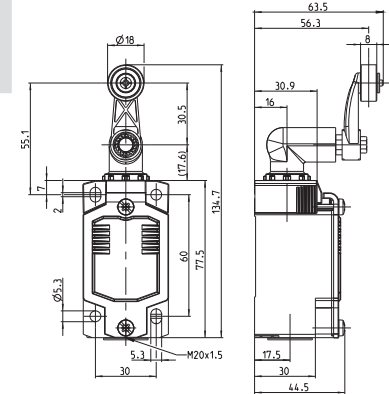
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MN78-V11 DGKK





Replacement actuator: 3918352393

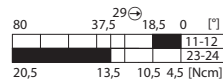
MN78-... AHK



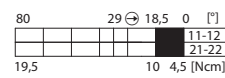
	1 NC / 1 NO	2 NC	2 NO	2 NC / 2 NO
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Slow-action system

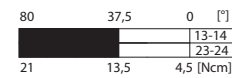
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MN78-11 AHK



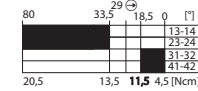
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MN78-20 AHK



608700066
MN78-02 AHK

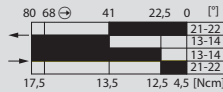


608700068
MN78-22 AHK

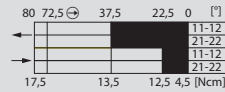


Snap-action system

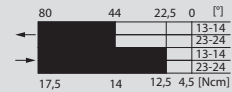
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MN78-S11 AHK



608700063
MN78-S20 AHK



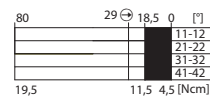
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MN78-S02 AHK



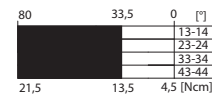
	4 NC	4 NO	3 NC / 1 NO	1 NC / 3 NO	1 NC / 1 NO overlapping
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Slow-action system

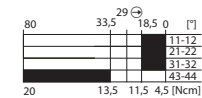
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MN78-40 AHK



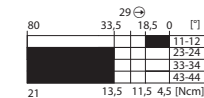
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MN78-04 AHK



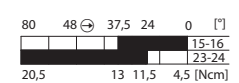
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MN78-31 AHK



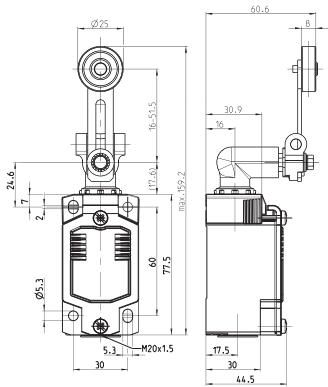
608700072
MN78-13 AHK



608700067
MN78-V11 AHK



POSITION SWITCHES METAL MN78



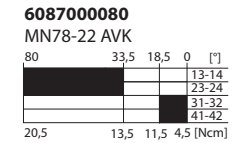
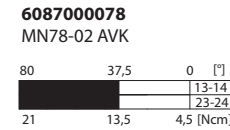
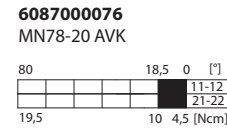
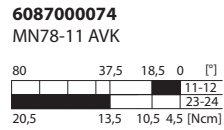
MN78-... AVK

Replacement actuator: 3918362424

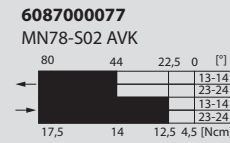
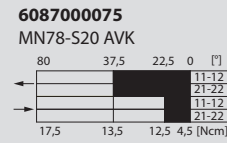
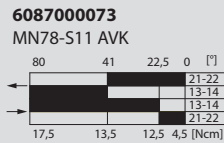


	1 NC / 1 NO	2 NC	2 NO	2 NC / 2 NO
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Slow-action system

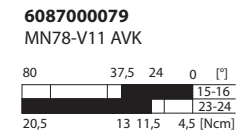
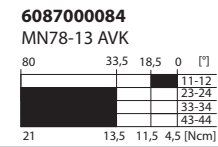
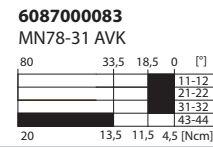
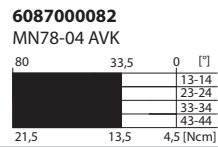
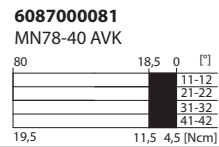


Snap-action system



	4 NC	4 NO	3 NC / 1 NO	1 NC / 3 NO	1 NC / 1 NO overlapping
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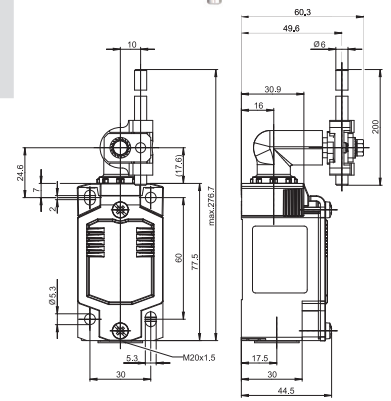
Slow-action system





Replacement actuator: 3918372421

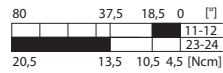
MN78-... AHDM



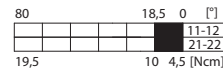
	1 NC / 1 NO	2 NC	2 NO	2 NC / 2 NO
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Slow-action system

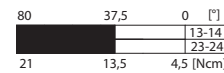
608700086
MN78-11 AHDM



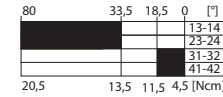
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MN78-20 AHDM



608700090
MN78-02 AHDM

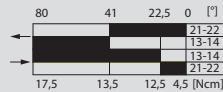


608700092
MN78-22 AHDM

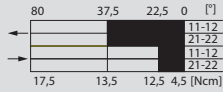


Snap-action system

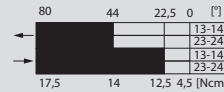
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MN78-S11 AHDM



608700087
MN78-S20 AHDM



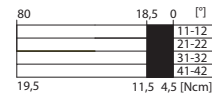
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MN78-S02 AHDM



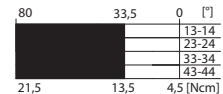
	4 NC	4 NO	3 NC / 1 NO	1 NC / 3 NO	1 NC / 1 NO overlapping
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Slow-action system

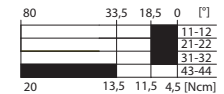
608700093
MN78-40 AHDM



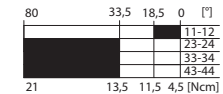
608700094
MN78-04 AHDM



608700095
MN78-31 AHDM



608700096
MN78-13 AHDM



608700091
MN78-V11 AHDM

