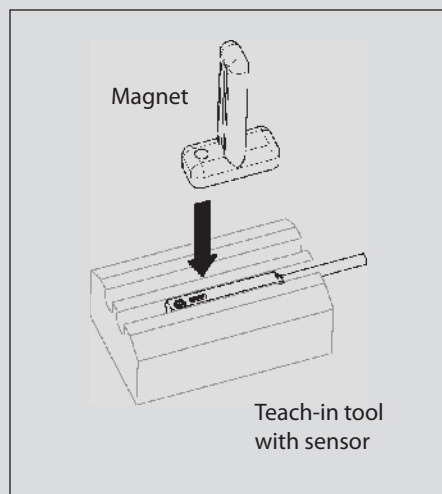


Programmable Miniature Position Sensors with Fully Integrated Electronics

The teachable magnetic sensors are characterised by one or two freely programmable, independent switching points. Despite this high degree of functionality, BERNSTEIN has succeeded in integrating the entire electronics into a compact sensor enclosure with the smallest possible dimensions. This design feature renders additional protection (e.g. for the cable electronics or high-cost safeguards) unnecessary.

The compact design is suitable for installation in all standard T- and C-slots (e.g. FESTO or SMC). In an installed position, the freely programmable switching points can be quickly and easily set with the aid of the easy-to-use teach-in tool.



This configuration largely avoids unintentional changes to the settings and substantially increases the resistance to environmental influences while retaining the protection class rating.

Manually searching for the switching points has been replaced by rapid electronic balancing with the sensor installed in position. LEDs at the top of the sensor serve as the function indicator, provide information on the programming status and also signal faults. In addition to featuring effective polarity reversal protection as standard, the sensors also have an internal EEPROM that stores the switching points in the event of power failure.

Advantages

- Completely integrated electronic solution
- Permanent protection rating
- No need for additional electronics
- Fully immersed and therefore protected installation in the slot
- Suitable for standard C- and T-slots
- Available as cable or plug version
- Occupies only one slot
- Freely programmable switching points
- Straightforward teach-in procedure
- Reduced installation and wiring requirements
- Can be fitted from above
- High switching accuracy

- The installed sensor assumes programming mode when the teach-in tool is placed over it
- The positions of the magnet are assigned to the respective outputs by correspondingly aligning the tool
- The programmable switching points are stored in the sensor
- The switching points can be changed by repeating the teach-in procedure

Technical data

- PNP/NO contact
- Magnetic sensitivity $\pm 1.5 \text{ mT}$ to $\pm 13.5 \text{ mT}$
- Sensing distance up to 50 mm (depending on magnet/air gap)
- Repeat accuracy $\leq 0.1 \text{ mT}$
- Hysteresis $1 \text{ mT} \leq H \leq 1.35 \text{ mT}$
- Operating voltage range 10 – 30 V DC
- Output current $I_e \leq 50 \text{ mA}$ (one output switched) $\leq 25 \text{ mA}$ per output (both outputs switched)
- Ambient temperature $-20 \text{ }^\circ\text{C}$ to $+80 \text{ }^\circ\text{C}$
- Protection class IP67

Other slot sensors

Sensors with only one output can also be used for applications that require only one switching point. For this purpose BERNSTEIN offers a range of Hall sensors with set sensitivity or reed contact versions that do not require auxiliary energy.

All sensors come with the following accessories:

- 1x setscrew M2 x 3 (E22), M3 x 6 (E30), DIN 913
- 1x Offset screwdriver (E22)
- 1x Teach-in tool
- 1x Operating and installation instructions

Standards and approvals

MEK E-22/MEA E30
EN 60947-5-2

