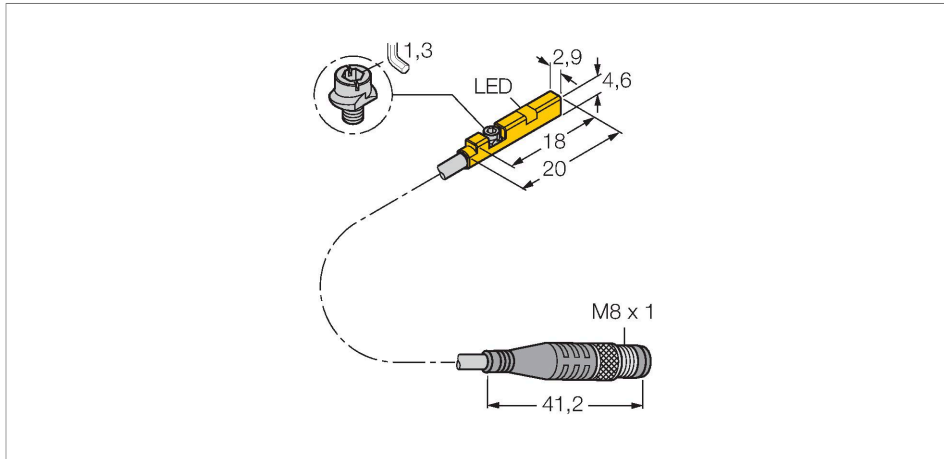


# BIM-UNR-AP6X-0.3-PSG3M/S1764 W/M

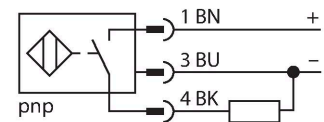
## Magnetic Field Sensor – For Pneumatic Cylinders



### Features

- For C-groove cylinders without mounting accessories
- Optional accessories for mounting on other cylindrical housings.
- One-hand mounting possible
- Stable mounting
- Magneto-resistive sensor
- DC 3-wire, 11...30 VDC
- NO contact, PNP output
- Pigtail with M8 × 1 male connector

### Wiring diagram




### Technical data

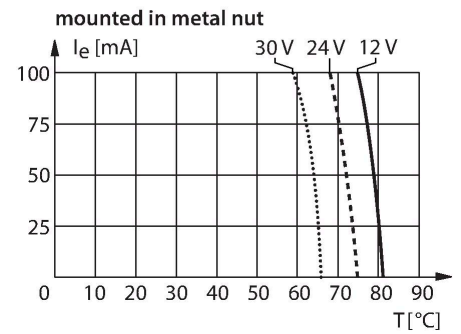
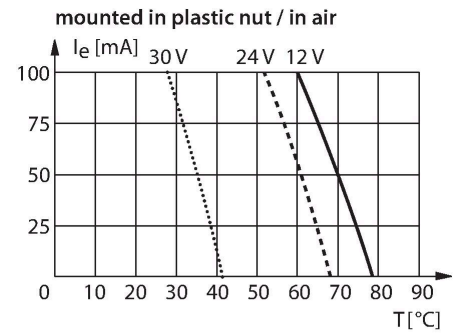
|   |   |
|---|---|
| Type                                      | BIM-UNR-AP6X-0.3-PSG3M/S1764 W/M  |
| Ident. no.                                | 4685889   |
| Special version                           | S1764 corresponds to:<br>Weldguard coating<br>Viton fire-resistant jacket<br>The jacket begins at the end of the sensor and, except for 100 mm of shrink tubing at the end of the cable, covers the entire line |
| Pass speed                                | ≤ 3 m/s   |
| Repeatability                             | ≤ ± 0.1 mm  |
| Temperature drift                         | ≤ 0.3 mm  |
| Hysteresis                                | ≤ 1 mm  |
| Ambient temperature                       | -25...+70 °C  |
| Operating voltage                         | 11...30 VDC   |
| Residual ripple                           | ≤ 10 % U <sub>ss</sub>  |
| DC rated operational current              | ≤ 100 mA  |
| No-load current                           | ≤ 15 mA   |
| Residual current                          | ≤ 0.1 mA  |
| Isolation test voltage                    | ≤ 0.5 kV  |
| Short-circuit protection                  | yes / Cyclic  |
| Voltage drop at I <sub>o</sub>            | ≤ 1.8 V   |
| Wire breakage/Reverse polarity protection | yes / Complete  |
| Output function                           | 3-wire, NO contact, PNP   |
| Switching frequency                       | 0.3 kHz   |
| Design                                    | Rectangular, UNR  |
| Dimensions                                | 18 x 2.9 x 4.6 mm   |

### Functional principle

Magnetic field sensors are activated by magnetic fields and are used, in particular, for the detection of the piston position in pneumatic cylinders. As magnetic fields can permeate non-magnetizable metals, they detect a permanent magnet attached to the piston through the aluminium cylinder wall.

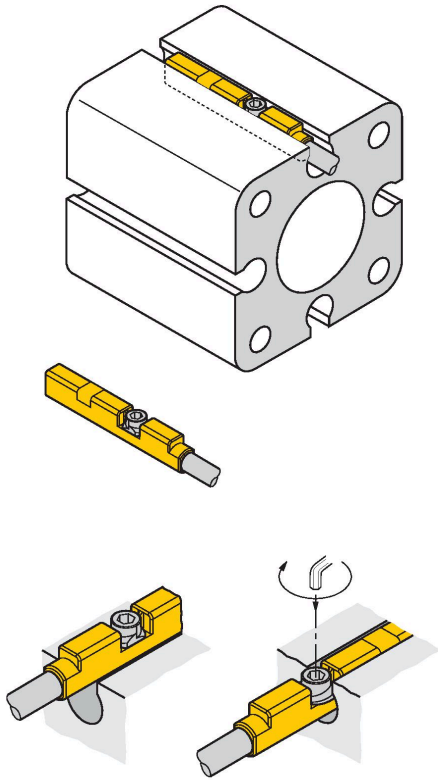
## Technical data

|   |   |
|---|---|
| Housing material                          | Plastic, PP   |
| Active area material                      | Plastic, PP   |
| Tightening torque fixing screw            | 0.2 Nm  |
| Electrical connection                     | Cable with connector, M8 × 1  |
| Cable quality                             | Ø 2 mm, Gray, Lif9Y-11Y, PUR, 0.3 m   |
| Core cross-section                        | 3 x 0.08 mm <sup>2</sup>  |
| Litz wire                                 | 40 x 0.05 mm  |
| Vibration resistance                      | 55 Hz (1 mm)  |
| Shock resistance                          | 30 g (11 ms)  |
| Protection class                          | IP67  |
| MTTF                                      | 2283 years acc. to SN 29500 (Ed. 99) 40 °C  |
| <b>Mounting on the following profiles</b> |   |
| Cylindrical design                        |  |
| Switching state                           | LED, Yellow   |
| Included in delivery                      | cable clip  |



## Mounting instructions

### Mounting instructions/Description

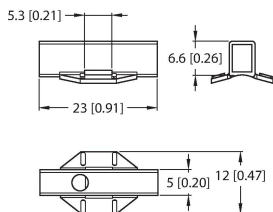


The sensor is mounted in the groove from above. Mount the sensors as follows using the patented wing screw: The wing screw features a left-hand female thread. Two small plastic lips keep the screw in position, ready-to-install. Turn the screw clockwise. The screw moves out of the thread and hits the upper grooves with the wings. The sensor is thus pressed down and locked. Use a 1.5 mm Allen key to fasten the screw with a quarter turn. A fixing torque of 0.2 Nm is sufficient for safe mounting without damaging the cylinder. Cable clips are included in the scope of delivery. They enable smooth cable routing in the groove. Mounting accessories for other cylinder sizes have to be ordered separately.

## Accessories

KLR2-UNR

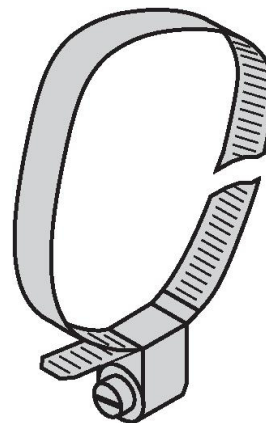
100000596



Mounting bracket for mounting magnetic field sensors on round cylinders

ASB-4

6965104



Clip collar for mounting brackets for magnetic field sensors on round cylinders; cylinder diameter: 28... 39 mm; other lengths are available under designations ASB-1 to ASB-9