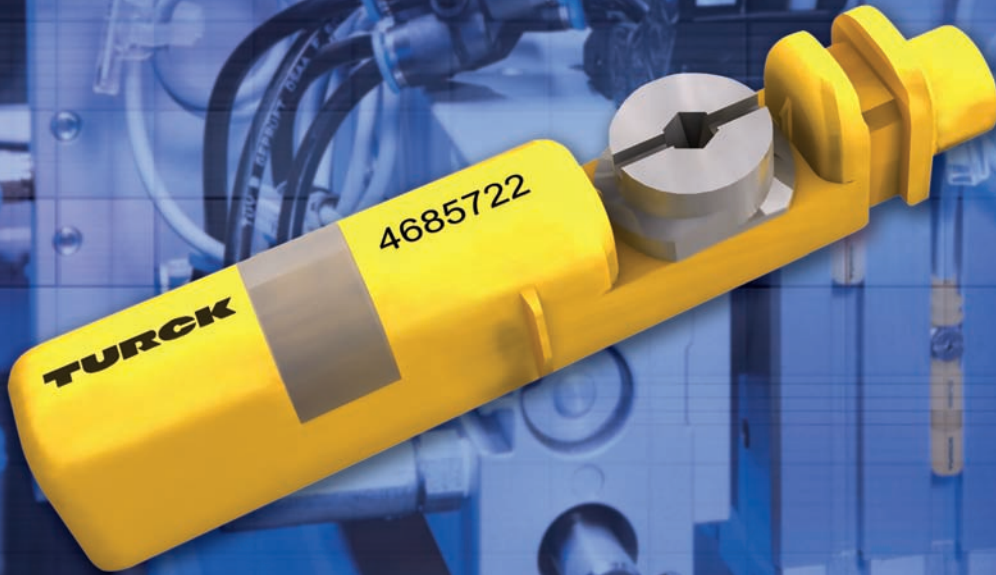


TURCK
works

Industrial
Automation

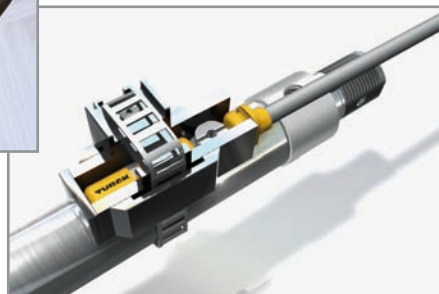
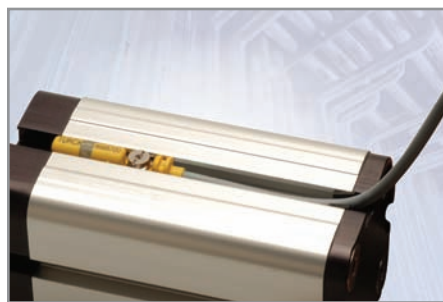
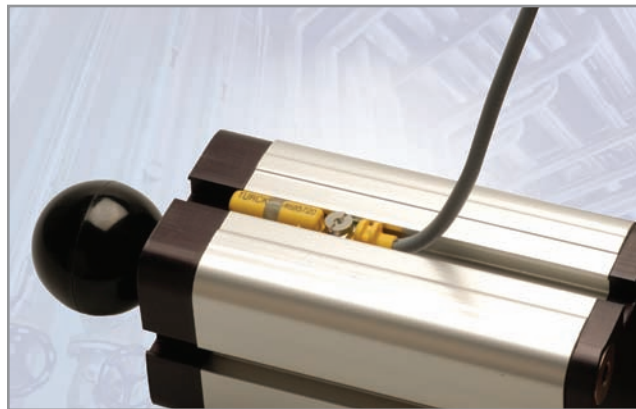
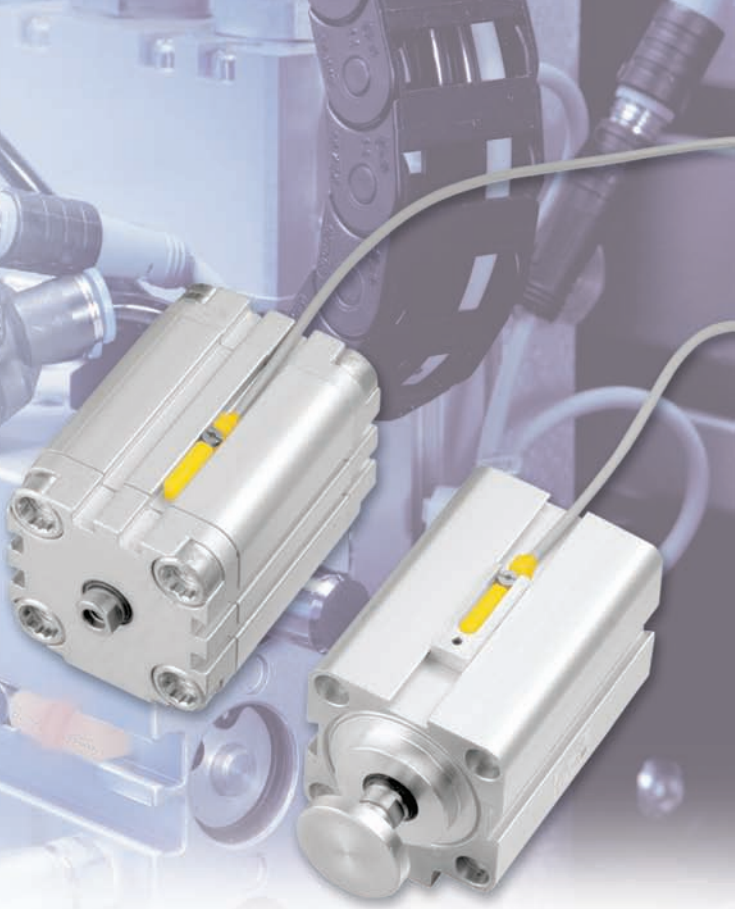
**Universal
Magnetic Field
Sensors**



www.turck.com

The **BIM-UNT**, a universal magnetic field sensor, is the latest addition to the inductive-magnetic family of switches by **TURCK**. It has the ability to detect the position of a piston on all types of standard pneumatic cylinders. The sensor is polarity protected, has reliable switching points and a fast response time. It is immune to high levels of EMC and vibration, and is IP 67 rated for use in harsh environments.

The **BIM-UNT** not only offers improved packaging and performance, it also simplifies maintenance, helps prevent over-stocking and streamlines the production process. Additionally, it comes with compatible accessories to help ease installation.



Mounting Advantages

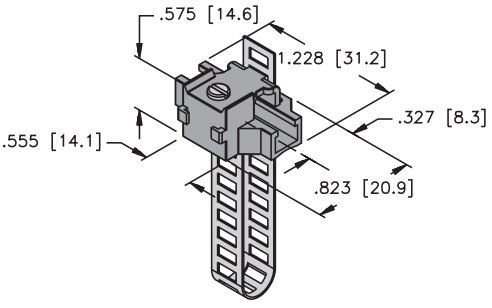
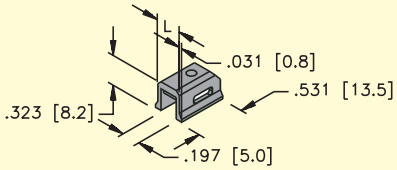
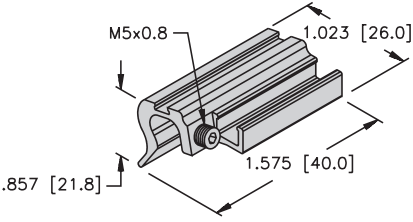
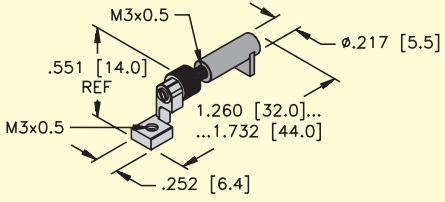
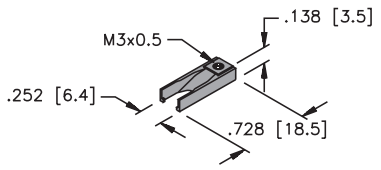
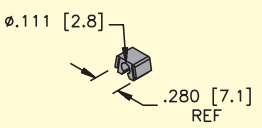
The **BIM-UNT** universal magnetic field sensor is designed to detect the piston on all standard pneumatic cylinders. The sensor can be direct mounted with the help of cost-efficient accessories, making it one of the most versatile sensors on the market.

- A strategically placed wire and screw holds the sensor down – even when the cable is tugged on – and helps eliminate cable strain.
- The sensor is equipped with a simple and robust mounting system to ensure stability during operation. This makes it easy to install and ensures fewer re-adjustments of the sensor.
- Economical accessories, from precision mounts and wire-strain accessories, to optional clips that hold the wire in place in any shaped groove. This eliminates the need for expensive custom-fit accessories.

Types and Technical Data

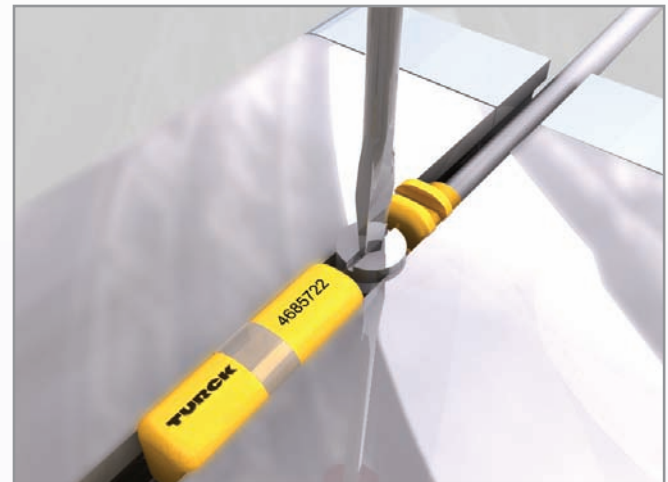
| Housing Styles | Part Number | ID Number | Connection |
|-------------------------------------------------------------------|--------------------------|-----------|--------------------------------------------------------------|
| <p>BIM-UNT Potted-In Cable</p> | BIM-UNT-AP6X | S4685720 | PUR cable, 2 m, PNP |
| | BIM-UNT-AN6X | S4685702 | PUR cable, 2 m, NPN |
| | BIM-UNT-AP6X 7M | S4685721 | PUR cable, 7 m, PNP |
| | BIM-UNT-AN6X 7M | S4685701 | PUR cable, 7 m, NPN |
| <p>BIM-UNT <i>picofast</i>® Snap Lock Quick Disconnect</p> | BIM-UNT-AP6X-0.3M-PSG 3S | S4685722 | Pigtail M8x1, snap lock / fixed thread, 0.3 m PUR cable, PNP |
| | BIM-UNT-AN6X-0.3M-PSG 3S | S4685705 | Pigtail M8x1, snap lock / fixed thread, 0.3 m PUR cable, NPN |
| <p>BIM-UNT <i>picofast</i>® Quick Disconnect</p> | BIM-UNT-AP6X-0.3M-PSG 3M | S4685723 | Pigtail M8x1, threaded coupling nut, 0.3 m PUR cable, PNP |
| | BIM-UNT-AN6X-0.3M-PSG 3M | S4685706 | Pigtail M8x1, threaded coupling nut, 0.3 m PUR cable, NPN |
| | BIM-UNT-AP6X-0.6M-PSG 3M | S4685724 | Pigtail M8x1, threaded coupling nut, 0.6 m PUR cable, PNP |
| <p>BIM-UNT <i>euromast</i>® Quick Disconnect</p> | BIM-UNT-AP6X-0.3M-RS 4T | S46857260 | Pigtail M12x1, threaded coupling nut, 0.3 m PUR cable, PNP |

Mounting and Adjustment Accessories

| Dimensional Drawings | Part Number | ID Number | Description |
|-------------------------------------------------------------------------------------|-----------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------|
|  | KLR-UNT1 | M6970623 | Accessory for mounting on a round/tie-rod cylinder, diameter = 8-25 mm. |
| | KLR-UNT2 | M6970624 | Accessory for mounting on a round/tie-rod cylinder, diameter = 25-63 mm. |
|  | KLDT-UNT2 | S6913351 | Accessory for mounting on a dovetail cylinder, L = 7 mm. |
| | KLDT-UNT3 | S6913352 | Accessory for mounting on a dovetail cylinder, L = 9.4 mm. |
| | KLDT-UNT4 | S6913353 | Accessory for mounting on a dovetail cylinder, L = 11.5 mm. |
| | KLDT-UNT5 | S6913354 | Accessory for mounting on a dovetail cylinder, L = 12.6 mm. |
|  | KLZ1-INT | M6970410 | Accessory for mounting on a tie-rod cylinder, diameter = 32-40 mm. |
| | KLZ2-INT | M6970411 | Accessory for mounting on a tie-rod cylinder, diameter = 50-63 mm. |
| | KLZ3-INT | M6970412 | Accessory for mounting on a tie-rod cylinder, diameter = 80-100 mm. |
|  | UNT-Adjusting Bracket | S4685750 | Adjustable precision-tuning accessory for locating the switching points. Can be used multiple times. |
|  | UNT-Stopper | S4685751 | Accessory for marking the switching points on T-groove cylinders. |
|  | INT Cable Clip | M6900456 | Accessory for securing the cable in place to avoid cable strain. Packing unit = 10 pieces. (One piece included in the BIM-UNT.) |

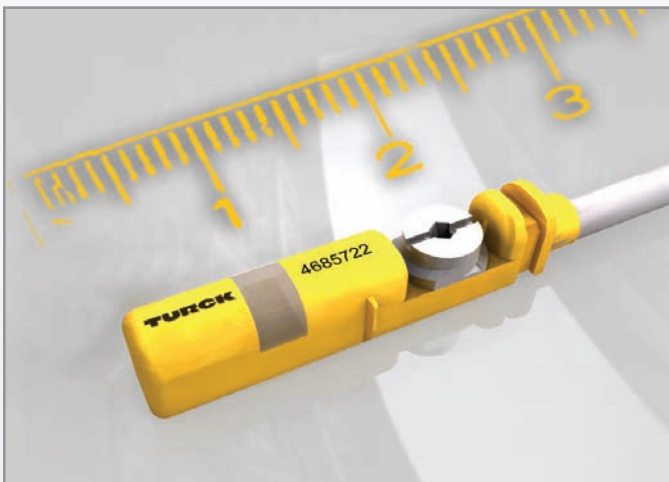
Stable and Reliable Mounting

After the sensor has been inserted into the cylinder's groove, a *quick-mount* tab on the side of the sensor helps seat the sensor until the screw is tightened. This makes it easy to mount the sensor with one hand, even while it is facing downwards. The screw is made of a tool steel alloy and can be tightened with the help of a 1.5 mm Allen wrench or a standard flat-head screwdriver. This ensures stability and resistance to vibration under the harshest conditions.



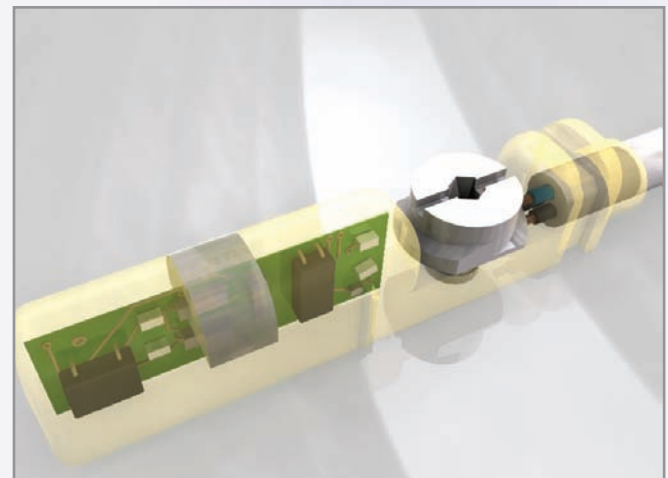
Compact Housing Style & LED

The **BIM-UNT** comes with enhanced packaging and performance. It is only 28 mm in length, making it one of the most compact sensors on the market. The bright LED located on top of the sensor makes it possible to check the switching status from any convenient working angle. The sensing face is located near the front of the sensor, allowing the position of the piston rod to be consistently detected — even on compact, short stroke cylinders.

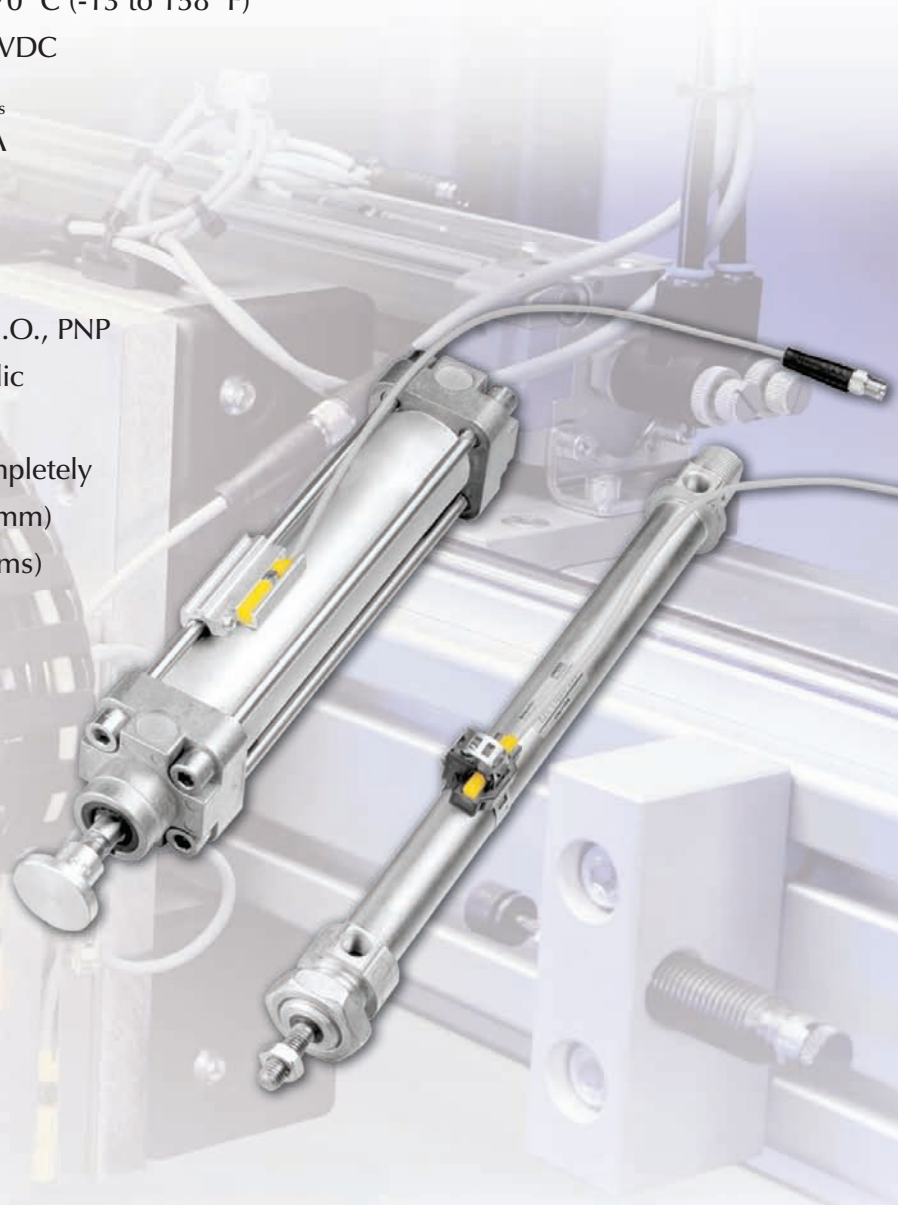


Standards

Magneto Resistive technology enables the sensor to detect the exact position of the magnet, while avoiding multiple switching points. It also exceeds the IEC standard specifications, EN60947-5-2 and EN 61000-4-6, making it compliant with these standards and immune to high levels of EMC.



| | |
|----------------------------------------|------------------------------------|
| Ambient Temperature |-25 to +70 °C (-13 to 158 °F) |
| Operating Voltage | 10 to 30 VDC |
| Ripple Vpp |∞10% U _{ss} |
| Rated Operating Current DC |∞150 mA |
| No-load Current I _o |∞15 mA |
| Off-state Current |∞0.1 mA |
| Switching Frequency |∞1 kHz |
| Output Function |3-wire, N.O., PNP |
| Short-circuit Protection |Yes / Cyclic |
| Voltage Drop I _e |∞1.8 V |
| Wire-break/Reverse Polarity Protection | .. Yes / Completely |
| Vibration Resistance | 55 Hz (1mm) |
| Shock Resistance | 30 g (11 ms) |
| Degree of Protection | IP67 |
| Overtravel Speed | 10 m/s |



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