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M08 Series
Inductive Sensors

Types and Features

<table>
<thead>
<tr>
<th>Models</th>
<th>NO mode, PNP</th>
<th>Complementary, PNP</th>
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</thead>
<tbody>
<tr>
<td>12 mm (M08)</td>
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<td>6023977*</td>
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Parameters:
- Rated switching distance
- Assurance operating distance
- Operating voltage
- Temperature drift
- Hysteresis
- Ambient temperature
- DC rated operational current
- Voltage drop at Ie
- Wire breakage/reverse polarity protection
- Switching frequency
- Model Threaded barrel, M8 x 1
- Housing material Metal, CuZn, nickel-plated brass
- Material, active face Plastic, PP-GF20
- max. tightening torque 7 Nm
- Connector Connector, M8 x 1, M12 x 1 or cable 2 m or 7 m
- Cable cross section 3x 0.14 mm²
- Vibration resistance 55 Hz (1 mm)
- Shock resistance 30 g (11 ms)
- Protection class IP67
- MTTF 2283 years according to SN 29500 (Ed. 99) @ 40°C

Two-wire, NO contact, PNP/NPN
- 4-wire, changeover contact, PNP/NPN (from 22-mm thread length)
M08 Series – Inductive Sensors

Customer Benefits

Large range of variants enables creativity in design
- The portfolio has been extended with additional threaded barrel lengths, in addition to the existing designs M08K (22 mm) and M08E (40 mm). The range now also includes the new models M08 (30 mm) and M08KK (15 mm).

Maximum mechanical stability guarantees long service life
- Brass threaded barrel with increased wall thickness offers best protection of sensor electronics.
- Highly flexible cable reduces cable breaks in mobile use, e.g., when used in E-Chains. One-piece metal housing prevents damage at joints.

Minimum mechanical stability for the broadest possible use
- The consistent implementation of the new ferrite core technology, which enables an increase in switching distance of up to 50 percent means the switch variants can be reliably used in mobile, vibrating, or rotating applications.

All devices offer long switching distances and protection against short circuit and reverse polarity.

Latest production technology
- The consistent implementation of the new ferrite core technology enables a flexible portfolio with increased switching distances for all models.

Maximum mechanical stability
- The design of the sensors in a single piece enables a flexible portfolio with increased wall thickness guarantees maximum mechanical stability.

Highly flexible 8-mm cable
- In sensors with cable output, the flexible free cable with TPE outer sheath is highly flexible and suitable for use with a 3-Chip. This enables use in a wide range of applications.

Bright LEDs enable rapid commissioning and troubleshooting
- Clear switching status display, even in poor conditions
- Cable devices with 360° LED display clearly visible from all angles, and translucent end cap
- Brighter LEDs for plug connection devices

Miniaturization as far as possible can replace M12 sensors
- Large switching distance for inductive proximity switches in M08 design. Enable evaluation of a wide range of applications even without the use of larger M12 sensors
- Extremely short variants with a minimum sensor length of 17.1 mm

Bright LEDs with excellent visibility
- New, brighter LEDs in connector devices and in M08 cable models enable clearly visible identification of the switching status

All electrical variants
- The full portfolio of the M08 series also includes the range of common electrical output variants – from 3-wire (NO) contact and it wire changecord variants to PNP and NPN

Applications Example

Due to their miniaturized design available in a wide range of variants, the new inductive proximity switches in M08 brass threaded barrel are ideal for all applications where space is restricted. The powerful LED ensures excellent visual recognition, even in poor visibility. The quality of the flexible cables also permits operation in E-Chains according to manufacturer’s declaration H1063M, which permits operation in E-chains according to protection category IP 67/68. This means they can be reliably used in mobile, vibrating, or rotating applications.

Comprehensive Portfolio
- The full portfolio of the M08 series also includes the range of common electrical output variants – from 3-wire (NO) contact and wire changecord variants to PNP and NPN.

For the new M08 series, Turck has fully revised the ferrite core technology, which enables an increase in switching distance of up to 50 percent. The basic versions now offer an increased switching distance of 5 millimeters alongside the existing 2 mm variants, and the new variants are now available in 5 or 10 millimeter versions.

The devices with cable output also offer a cable suitable for drag chain use and a semitransparent LED ring at the end of the sensor to make the switching status clearly visible from all angles.

Sensor in M8 design are typically used where space in the machine or plant is restricted, although a certain amount of freedom for additional components is still required. The new M08 series offers the usual Turck quality in a new design concept of the sensors enables an extensive portfolio with increased switching distances and models from 15 to 45 mm.

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The fully developed sensor electronics and coupled lengths of 15, 22, 30, and 40 millimeters ensure that you will always find a model in the right size. The portfolio now includes the ultra-short 15-millimeter version for the first time.

The full portfolio of the M08 series also includes the range of common electrical output variants – from 3-wire (NO) contact and wire changecord variants to PNP and NPN.

The portfolio of the M08 series includes variants for every application. The new compact version of inductive proximity switches in M8 housing is now more versatile and easier to use with improved design. The modular design concept of the sensors enables an extensive portfolio with increased switching distances and models from 15 to 45 mm.

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