Types and Features

		NO mode, PNP			Complementary, PNP		
Thread length	Switching distance	Cable length 2 m	Male M8 (3-pin)	M12 male	Cable length 7 m	Male M8 (4-pin)	M12 male
40 mm (M08E)	2 mm, ⇶	4602954*	4602956*	4602955	4602960*	4602962	4602961*
	3 mm, ⇶	4602834*	4602836*	4602835	4602844*	4602846	4602845*
	3 mm, ⇶	4602906*	4602916*	4602904*	4602816*	4602818*	4602817*
	5 mm, ⇶	4603003*	4603005*	4603004*	4603022*	4603024	4603023
30 mm (M08)	2 mm, ⇶	4602901*	4602903*	4602902	4602810*	4602812	4602811*
	3 mm, ⇶	4602929*	4602930*	4602931	4602865	4602867	4602866*
	3 mm, ⇶	4602910*	4602911*	4602912*	4602828*	4602830*	4602829*
	5 mm, ⇶	4602920*	4602921*	4602922*	4603041*	4603043	4603042
22 mm (M08K)	2 mm, ⇶	4602966*	4602968*	4602967	4602803*	2602805	4602804*
	3 mm, ⇶	4602851*	4602853*	4602852	4602857*	4602859	4602858*
	3 mm, ⇶	4602919*	4602917*	4602918*	4602822*	4602824*	4602823*
	5 mm, ⇶	4603030*	4602905*	4603031*	4603035*	4603037	4603036
15 mm (M08KK)	3 mm, ⇶	4602938*	4602939*	4602940*	–	–	–
	5 mm, ⇶	4602944**	4602946	4602947	–	–	–

		NO mode, NPN			Complementary, NPN		
Thread length	Switching distance	Cable length 2 m	Male M8 (3-pin)	M12 male	Cable length 7 m	Male M8 (4-pin)	M12 male
40 mm (M08E)	2 mm, ⇶	4602951*	4602953*	4602952	4602957*	4602959	4602958*
	3 mm, ⇶	4602831*	4602833*	4602832	4602837*	4602839	4602838*
	3 mm, ⇶	4602907*	4602909*	4602908*	4602813	4602815	4602814
	5 mm, ⇶	4602869	4603002	4602869	4603008	4603020	4603009
30 mm (M08)	2 mm, ⇶	4602926*	4602927*	4602928	4602806*	4602809	4602808*
	3 mm, ⇶	4602932*	4602933*	4602934	4602862	4602864	4602863*
	3 mm, ⇶	4602913*	4602914*	4602915*	4602825	4602827	4602826
	5 mm, ⇶	4602923	4602924	4602925	4603038	4603040	4603039
22 mm (M08K)	2 mm, ⇶	4602963*	4602965*	4602964	4602969*	4602802	4602801*
	3 mm, ⇶	4602847*	4602849*	4602848	4602854*	4602856	4602855*
	3 mm, ⇶	4602937*	4602935*	4602936*	4602819	4602821	4602820
	5 mm, ⇶	4603027	4603029	4603028	4603032	4603030	4603033
15 mm (M08KK)	3 mm, ⇶	4602941*	4602942*	4602943*	–	–	–
	5 mm, ⇶	4602948	4602949	4602950	–	–	–

* Preferred type

Rated switching distance	**2 and 3 mm flush, 3 and 5 mm non-flush**
Assured operating distance	≤ (0.81 x Sn) mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeatability	≤ 2% of full scale
Temperature drift	≤ ± 10 %
Hysteresis	3…15 %
Ambient temperature	-25…+70 °C
Operating voltage	**10… 30 VDC**
Residual ripple	≤ 10 % U_{ss}
DC rated operational current	≤ 150 mA
No-load current I_0	≤ 15 mA
Residual current	≤ 0.1 mA
Rated insulation voltage	≤ 0.5 kV
Short-circuit protection	yes/cyclic
Voltage drop at I_e	≤ 1.8 V
Wire breakage/reverse polarity protection	Yes/complete
Output function	3-wire, NO contact, PNP/NPN, 4-wire, changeover contact, PNP/NPN (from 22-mm thread length)
Switching frequency	2.8 kHz
Model	**Threaded barrel, M8 x 1**
Dimensions	17.1 mm to 42.1 mm
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 quality	3 mm, gray, Lif9Y-11Y, PUR, 2 or 7 m, suitable for E-chain use acc. to manufacturer's declaration H1063M
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

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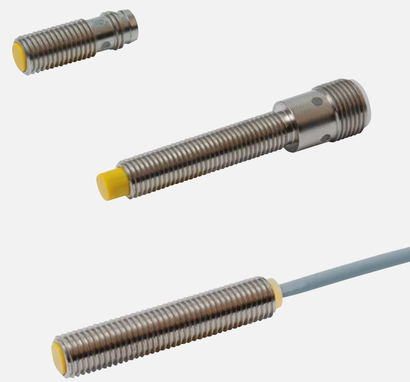
M08 Series
Inductive Sensors



M08 Series – Inductive Sensors

Full range – the ideal M08 sensor for every application

The new Turck series of inductive proximity switches in M8 housing is now more versatile and even more user-friendly. The modular design concept of the sensors enables an extensive portfolio with increased switching distances and models from 40 to 15 mm.

Sensors in M8 design are typically used when space in the machine or plant is restricted, although a certain amount of freedom for adjustment is still required. The new M08 series offers the usual Turck quality to fit perfectly in the narrowest of spaces. The fully re-developed sensor electronics and supplied lengths of 15, 22, 30 and 40 millimeters ensure that you will always find a model in the right size. The portfolio even includes the ultra-short 15-millimeter version for the first time.

On the connection side, M12 or M8 connectors, and devices with cable output are available for all typical connection variants. The electrical variant – available with 3 or 4-wire connection as a NO contact or changeover contact in PNP or NPN – also ensures the perfect electrical connection for your application.

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 flush versions now offer an extended switching distance of 3 millimeters alongside the existing 2 mm version, and the non-flush sensors are now available in 3 or 5 millimeter versions.

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

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 all thickness offers best protection of sensor electronics
- Highly flexible cable reduces cable breaks in mobile use, e.g. when used on E-Chain
- One-piece metal housing prevents damage at joins

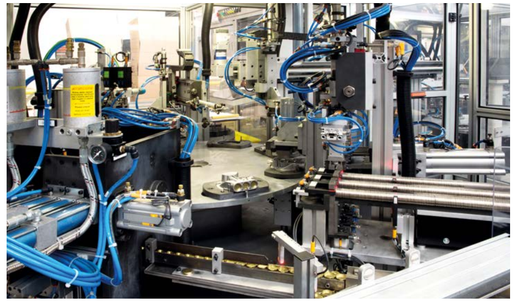
Bright LEDs enable rapid commissioning and troubleshooting

- Clear switching status display, even in poor conditions
- Cable devices with 360° LED display clearly visible from all angles, and translucent end cap
- New, brighter LEDs for plug connection devices

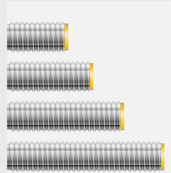
Miniaturization as far as possible can replace M12 sensors

- Large switching distance for inductive ferrite core sensors in M08 design. Enables realization 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

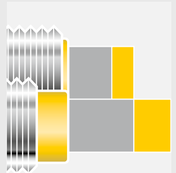
Application Examples



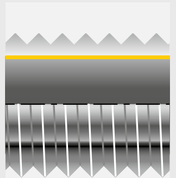
Due to their miniaturized design available in a wide range of variants, the new inductive proximity switches in M8 brass threaded barrel are ideal for all applications where space is restricted. The powerful LED ensures excellent visual recognition, even in poor visibility. The quality of the flexible cable also permits operation in E-chains according to manufacturer's declaration H1063M, which means they can be reliably used in mobile, vibrating, or rotating applications.



Comprehensive Portfolio
The M08 series includes versions for every application, from 40 mm length (M08E), 30 mm (M08) and 22 mm (M08K), through to the ultra-compact 15-mm version (M08KK) for the smallest of spaces. All devices offer long switching distances and protection against short-circuit and reverse polarity.



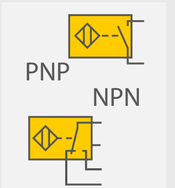
Latest production technology
The consistent implementation of the latest electronic and mechanical production technologies enables a flexible portfolio with increased switching distances for all models.



Maximum mechanical stability
The design of the sensors in a single-piece metal threaded barrel with increased wall thickness guarantees maximum mechanical stability.

Highly flexible Ø3-mm cable
In versions with cable output, the halogen-free cable with TPE outer sheath is highly flexible and suitable for use with a E-Chain. The enables use in a wide range of applications.

LEDs with excellent visibility
New, brighter LEDs in connector devices and a 360° LED in cable models enable clearly visible identification of the switching status.



All electrical variants
The full portfolio of the M08 series also includes the availability of all common electrical output variants – from 3-wire (NO contacts) and 4-wire (changeover contacts) to PNP and NPN.