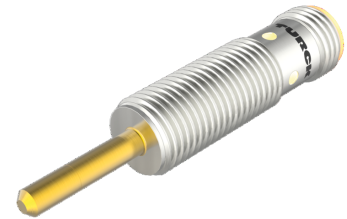
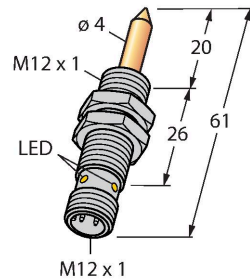


NIMFE-EM12/4.0L61-UN6X-H1141/S1182

Magnetic Field Sensor – With TIN Coating

For Detection of Ferromagnetic Parts



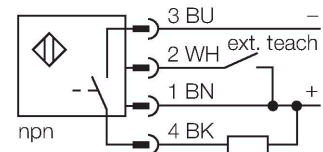
Technical data

Type	NIMFE-EM12/4.0L61-UN6X-H1141/S1182
ID	1600622
Remark to product	Optimized for the detection of weld nuts of the size of M5 to M10
Special version	S1182 Corresponds to: TIN coating
General data	
Electrical data	
Operating voltage U_B	10...30 VDC
Ripple U_{rs}	$\leq 10 \% U_{Bmax}$
DC rated operating current I_e	$\leq 100 \text{ mA}$
No-load current	$\leq 15 \text{ mA}$
Residual current	$\leq 0.1 \text{ mA}$
Isolation test voltage	0.5 kV
Short-circuit protection	yes/Cyclic
Voltage drop at I_e	$\leq 1 \text{ V}$
Wire break/reverse polarity protection	yes/Complete
Output function	3-wire, Connection programmable, NPN
Mechanical data	
Design	Threaded barrel, M12 x 1
Dimensions	61 mm
Housing material	Stainless steel, 1.4301 (AISI 304)
Active area material	Stainless steel, 1.4301 (AISI 304), TIN coating

Features

- DC 3- wire, 10...30 VDC
- Programmable (NC/NO) with teach adapter VB2-SP1
- M12 x 1 connector

Wiring diagram



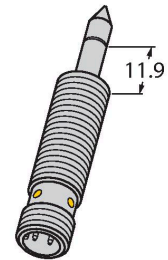
Functional principle

The weld sensors are available in different versions, with different signal intensities and diameters. Ferromagnetic parts which differ strongly in their material properties and diameters can thus be detected. A component to be detected must be located within the so-called optimal sensitive area in order to be detected.

This optimal sensitive area has a width of 0.5 mm and is laser-engraved on the tip of the probe, 11.9 mm above of the M12 thread.

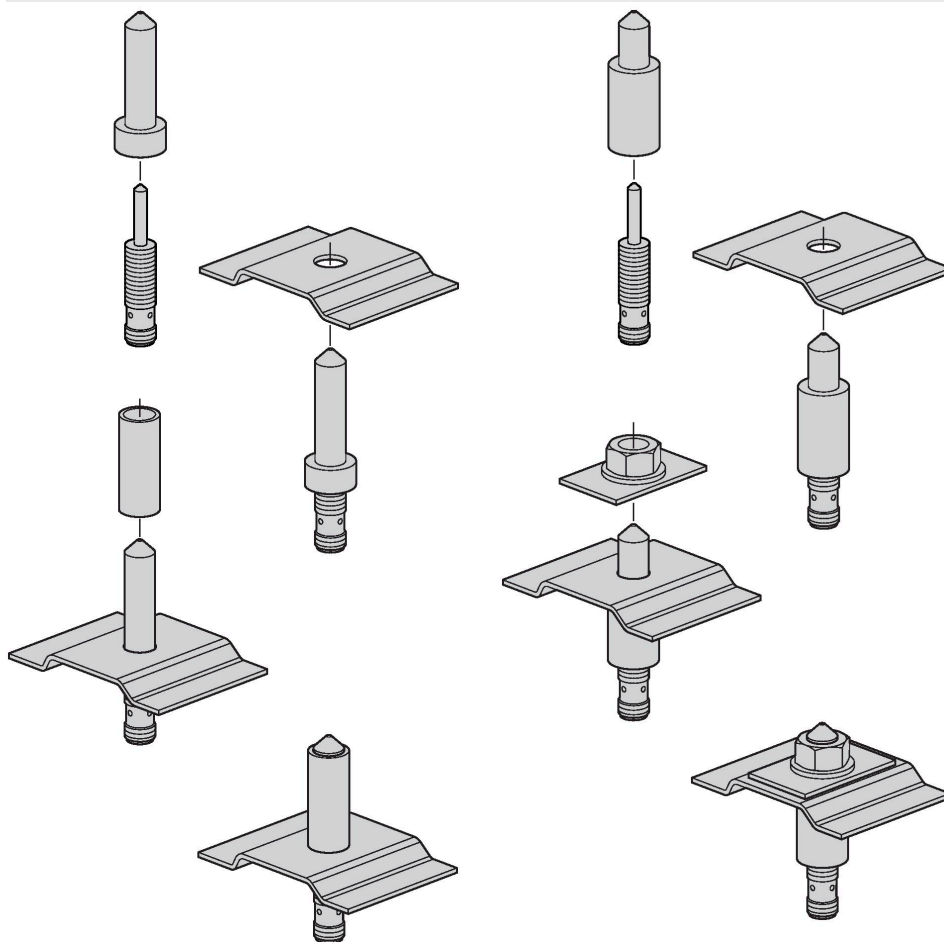
Technical data

Max. tightening torque of housing nut	10 Nm
Electrical connection	Connector, M12 × 1
Environmental conditions	
Ambient temperature	-25...+70 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	874 years acc. to SN 29500 (Ed. 99) 40 °C
Power-on indication	LED, Green
Switching state	LED, Yellow



Mounting instructions

Mounting instructions/Description



The magnetic field sensor for detection of ferromagnetic spares is especially suited for the detection of welding nuts as well as spacer or reinforcing sleeves. The parts to be detected must always consist of ferromagnetic material, so that a proper function can be guaranteed. Most applications need center bolts to tack the welding nuts and reinforcing sleeves in place and thus provide mechanical protection of the sensors. These bolts must be made of non-ferromagnetic material, like stainless steel for example. Center bolts are not available at Turck, as these have to be individually produced for and adjusted to the correspondent application.

