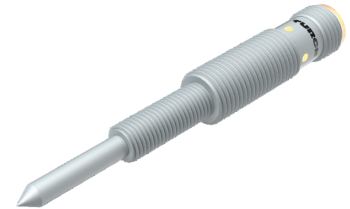
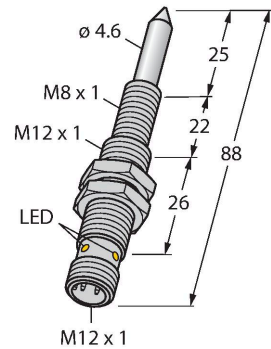


NIMFE-EMT12/4.6L88-UN6X-H1141

Magnetic Field Sensor

For Detection of Ferromagnetic Parts



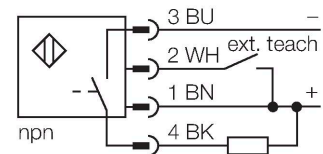
Technical data

Type	NIMFE-EMT12/4.6L88-UN6X-H1141
ID	1600618
General data	
Electrical data	
Operating voltage U_B	10...30 VDC
Ripple U_{ss}	$\leq 10 \% U_{Bmax}$
DC rated operating current I_o	$\leq 100 \text{ mA}$
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_o	$\leq 1 \text{ V}$
Wire break/reverse polarity protection	yes/Complete
Output function	3-wire, Connection programmable, NPN
Mechanical data	
Design	Threaded barrel, EMT12/4,6L88
Dimensions	88 mm
Housing material	Stainless steel, 1.4301 (AISI 304), PTFE-coated
Active area material	Stainless steel, 1.4301 (AISI 304), PTFE-coated
Max. tightening torque of housing nut	10 Nm
Electrical connection	Connector, M12 x 1

Features

- Threaded barrel, M12 x 1
- Stainless steel, 1.4301, PTFE-coated
- 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 target part has to be located within the so called sensitive area in order to be detected. The internal sensor signal reaches the maximum intensity if the sensitive area is completely covered by the target. Partial coverage is also possible.

Sensitive area $S = 9 \text{ mm}$

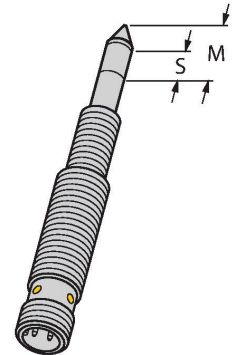
Within this area the sensor signal changes when components are connected.

Maximum range $M = 13 \text{ mm}$

In case of complete coverage of the sensitive area the maximum signal intensity is achieved.

Technical data

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

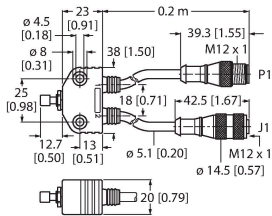
Mounting instructions/Description

Accessories

VB2-SP1

A3501-29

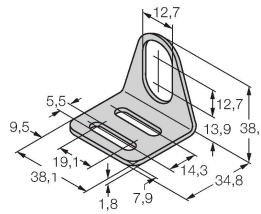
Teach adapter



MW12

6945003

Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)



BSS-12

6901321

Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene

