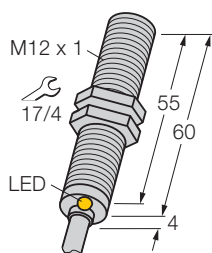


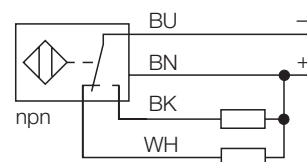
Inductive sensor

Bi3U-EM12E-VN4X



- threaded barrel, M12x1
- stainless steel, 1.4301
- factor 1 for all metals
- degree of protection IP68
- magnetic field immune
- extended temperature range
- high switching frequency
- 4-wire DC, 10...65 VDC
- SPDT, npn output
- cable connection

Wiring diagram



Function principles

Inductive proximity switches are designed for wear-free non-contact detection of metal objects. Due to a ferrite-less 3-coil system, Uprox factor 1 sensor have distinct advantages. The detect all metals at the same switching distance, are magnetic field immune and feature large switching distances.

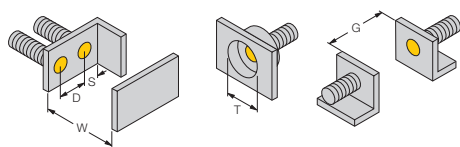
Type	Bi3U-EM12E-VN4X
Ident-No.	1580362
Rated operating distance Sn	3 mm
Mounting mode	flush
Hysteresis (switching distance)	3... 15 %
Min. repeat accuracy	≤ 2 %
Temperature drift	≤ ± 10 %
Operating temperature	≤ ± 15 %, ≤ -25 °C v ≥ +70 °C -30 ...+ 85 °C
Rated operational voltage (DC) U_B	10... 65 VDC
Max. ripple	≤ 10 % U _{pp}
Rated operational current (DC) I _e	≤ 200 mA
No-load current I ₀	≤ 15 mA
Max. OFF-state current	≤ 0,1 mA
Max. switching frequency	≤ 3 kHz
Rated insulation voltage	≤ 0,5 kV
Output function	4-wire, complementary, NPN
Short-circuit protection	yes, cyclic
Max. voltage drop at I _e	≤ 1,8 V
Wire breakage / reverse polarity protection	yes / complete
Protection class	☐
Housing style	threaded barrel; M12 x 1
Dimensions	64 mm
Housing material	metal, A2 1.4301 (AISI 304)
Active face	plastic, PBT
Max. fixing torque of coupling nut	10 Nm
Wiring	cable
Cable	Ø 5,2, LifYY, PVC, 2 m
Cable cross section	4 x 0,34 mm ²
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 x g (11 ms)
Degree of protection	IP68
Switching status indication	LED yellow

Inductive sensor**Bi3U-EM12E-VN4X****Mounting instructions**

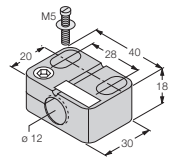
	minimum gap
Gap D	2 x B
Gap W	3 x Sn
Gap T	3 x B
Gap S	1,5 x B
Gap G	6 x Sn

Diameter of active face B

Ø 12 mm



Inductive sensor**Bi3U-EM12E-VN4X****Accessories**

Typ	Ident-No.	Description	Dimension drawing
BST-12B	6947212	fixing clamp with dead-stop; material: PA6	 
QM-12	6945101	quick-mount fixing clamp with dead-stop; material: chrome-plated brass external thread M16 x 1	