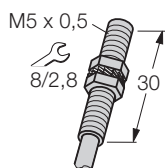


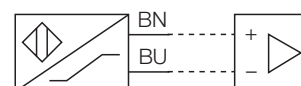
Inductive sensor

Bi1-EG05-Y1



- threaded barrel, M5 x 0,5
- stainless steel, 1.4301
- 2-wire DC, nom. 8.2 VDC
- output according to DIN EN 60947-5-6 (NAMUR)
- cable connection

Wiring diagram



Function principles

Inductive proximity switches are designed for wear-free non-contact detection of metal objects. For this they use a high-frequency electro-magnetic AC field that interacts with the target. With inductive sensors, this field is generated by an LC resonant circuit with a ferrite core coil.

Type	Bi1-EG05-Y1
Ident-No.	1003240
Rated operating distance S_n	1 mm
Mounting mode	flush
Hysteresis (switching distance)	1... 10 %
Min. repeat accuracy	≤ 2 %
Temperature drift	$\leq \pm 10$ %
Operating temperature	-25 ...+ 70 °C
Voltage	nom. 8,2 VDC
Current consumption (off-state)	$\geq 2,1$ mA
Current consumption (on-state)	$\leq 1,2$ mA
Max. switching frequency	≤ 5 kHz
Output function	2-wire, NAMUR
Approval according to	KEMA 02 ATEX 1090X
Internal inductivity (L_i) / capacitance (C_i)	150 nF / 150 μ H *
	* Value for pre-fixed cable up to 30m
Marking of device	II 2 G EEx ia IIC T6 (max. $U_i = 15$ V, $I_i = 60$ mA, $P_i = 80$ mW)
Housing style	threaded barrel; M5 x 0,5
Dimensions	30 mm
Housing material	metal, A2 1.4301 (AISI 304)
Active face	plastic, PA12-GF20
Max. fixing torque of coupling nut	5 Nm
Wiring	cable
Cable	$\varnothing 3,2$, LifYY, PVC, 2 m
Cable cross section	2 x 0,14 mm ²
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 x g (11 ms)
Degree of protection	IP67

Inductive sensor

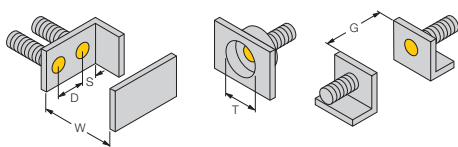
Bi1-EG05-Y1

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 5 mm



Inductive sensor

Bi1-EG05-Y1

Accessories

Typ	Ident-No.	Description	Dimension drawing
IM1-22EX-R/24VDC	7541210	Isolating switching amplifier, two channels; input for NAMUR signals; optional wire-break and short-circuit monitoring function; selectable normally open or normally closed performance; removeable terminal blocks; 18 mm wide; supply voltage 24 VDC; further isolating switching amplifiers in our "Interface Technology" catalogue.	