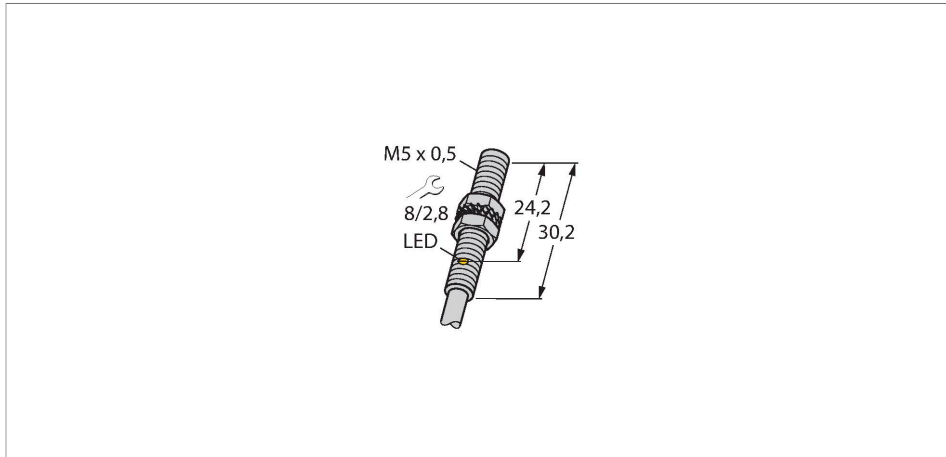


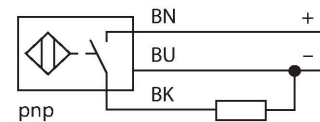
# BI1U-EG05-AP6X Inductive Sensor



## Features

- M5 x 0.5 threaded barrel
- Stainless steel, 1.4427 SO
- Factor 1 for all metals
- Resistant to magnetic fields
- Large switching distance
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Cable connection

## Wiring diagram



## Technical data

Type	BI1U-EG05-AP6X
Ident. no.	4602116
Rated switching distance	1 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	$\leq 2\%$ of full scale
Temperature drift	$\leq \pm 10\%$ $\leq \pm 20\%, \leq 0^\circ\text{C}$
Hysteresis	3...15 %
Ambient temperature	-25...+70 °C
Operating voltage	10...30 VDC
Residual ripple	$\leq 10\% U_s$
DC rated operational current	$\leq 100$ mA
No-load current	$\leq 20$ mA
Residual current	$\leq 0.1$ mA
Isolation test voltage	$\leq 0.5$ kV
Short-circuit protection	yes / Cyclic
Voltage drop at $I_e$	$\leq 1.8$ V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	3-wire, NO contact, PNP
Switching frequency	2 kHz
Design	Threaded barrel, M5 x 0.5
Dimensions	30.2 mm
Housing material	Stainless steel, 1.4427 SO

## Functional principle

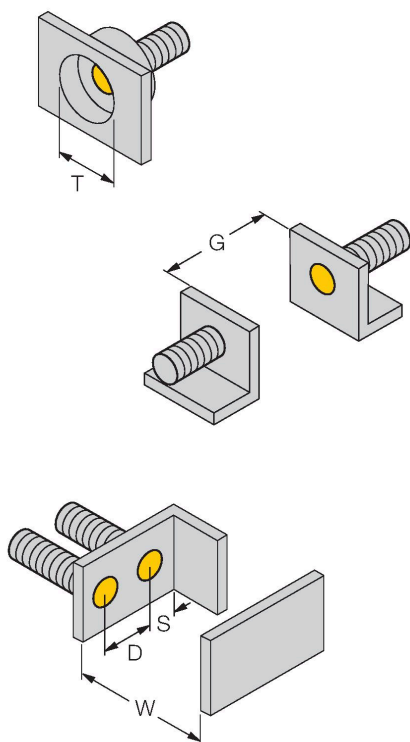
Inductive sensors detect metal objects contactless and wear-free. *uprox*<sup>®</sup>3 sensors have significant advantages due to their patented ferrite-coreless multicore system. They excel in largest switching distances, maximum flexibility and operational reliability as well as efficient standardization.

## Technical data

Active area material	PA12
Max. tightening torque housing nut	5 Nm
Electrical connection	Cable
Cable quality	Ø 3 mm, LifY-11Y, PUR, 0.2 m
Core cross-section	3 x 0.14 mm <sup>2</sup>
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
Switching state	LED, Yellow

## Mounting instructions

### Mounting instructions/Description



Distance D	2 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	1.5 x B
Distance G	6 x Sn
Diameter active area B	Ø 5 mm