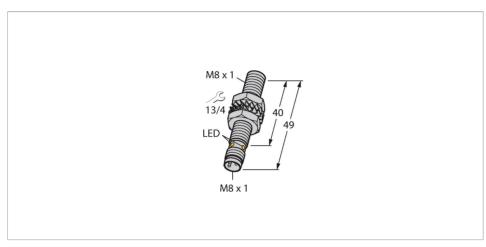


BI2U-EGT08-AP6X-V1131 Inductive Sensor



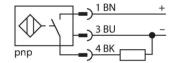
Technical data

Ident. no. 4602070 Rated switching distance 2 mm Mounting conditions Flush Secured operating distance ≤ (0.81 × Sn) mm Repeat accuracy ≤ 2 % of full scale Temperature drift ≤±10 % ≤±20 %, ≤ -25 °C v ≥ +70 °C Hysteresis 315 % Ambient temperature -30+85 °C Operating voltage 1030 VDC Residual ripple ≤ 10 % U₀ DC rated operational current ≤ 150 mA No-load current ≤ 15 mA Residual current ≤ 0.1 mA Isolation test voltage ≤ 0.5 kV Short-circuit protection yes / Cyclic Voltage drop at l₀ Wire breakage/Reverse polarity protection yes / Complete Output function 3-wire, NO contact, PNP Insulation class Switching frequency 1 kHz Design Threaded barrel, M8 × 1	Туре	BI2U-EGT08-AP6X-V1131
Rated switching distance 2 mm Mounting conditions Flush Secured operating distance ≤ (0.81 × Sn) mm Repeat accuracy ≤ 2 % of full scale Temperature drift ≤ ± 10 %	, ,	
Mounting conditions Flush Secured operating distance ≤ (0.81 × Sn) mm Repeat accuracy ≤ 2 % of full scale Temperature drift ≤± 10 % ≤± 20 %, ≤ -25 °C v ≥ +70 °C Hysteresis 315 % Ambient temperature -30+85 °C Operating voltage 1030 VDC Residual ripple ≤ 10 % U _s DC rated operational current ≤ 150 mA No-load current ≤ 15 mA Residual current ≤ 0.1 mA Isolation test voltage ≤ 0.5 kV Short-circuit protection yes / Cyclic Voltage drop at I _e ≤ 1.8 V Wire breakage/Reverse polarity protection yes / Complete Output function 3-wire, NO contact, PNP Insulation class □ Switching frequency 1 kHz Design Threaded barrel, M8 × 1		
Secured operating distance $\leq (0.81 \times \text{Sn}) \text{ mm}$ Repeat accuracy $\leq 2 \text{ % of full scale}$ Temperature drift $\leq \pm 10 \text{ %}$ $\leq \pm 20 \text{ %, } \leq -25 \text{ °C v} \geq +70 \text{ °C}$ Hysteresis 315 % Ambient temperature $-30+85 \text{ °C}$ Operating voltage 1030 VDC Residual ripple $\leq 10 \text{ % U}_{\text{ss}}$ DC rated operational current $\leq 150 \text{ mA}$ No-load current $\leq 15 \text{ mA}$ Residual current $\leq 0.1 \text{ mA}$ Residual current $\leq 0.1 \text{ mA}$ Isolation test voltage $\leq 0.5 \text{ kV}$ Short-circuit protection yes / Cyclic Voltage drop at l_{s} $\leq 1.8 \text{ V}$ Wire breakage/Reverse polarity protection yes / Complete Output function $3\text{-wire, NO contact, PNP}$ Insulation class \square Switching frequency 1 kHz Design Threaded barrel, M8 × 1	Rated switching distance	2 mm
Repeat accuracy $\leq 2\%$ of full scale Temperature drift $\leq \pm 10\%$ $\leq \pm 20\%, \leq -25^{\circ}\text{C}\text{v} \geq +70^{\circ}\text{C}$ Hysteresis 315% Ambient temperature $-30+85^{\circ}\text{C}$ Operating voltage 1030VDC Residual ripple $\leq 10\%\text{U}_{ss}$ DC rated operational current $\leq 150\text{mA}$ No-load current $\leq 15\text{mA}$ Residual current $\leq 0.1\text{mA}$ Isolation test voltage $\leq 0.5\text{kV}$ Short-circuit protection $yes/Cyclic$ Voltage drop at I_e $\leq 1.8\text{V}$ Wire breakage/Reverse polarity protection $yes/Complete$ Output function 3 -wire, NO contact, PNP Insulation class \Box Switching frequency 1kHz Design Threaded barrel, M8 × 1	Mounting conditions	Flush
Temperature drift $\leq \pm 10 \%$ $\leq \pm 20 \%, \leq -25 \degree \text{C v} \geq +70 \degree \text{C}$ Hysteresis 315% Ambient temperature $-30+85 \degree \text{C}$ Operating voltage 1030 VDC Residual ripple $\leq 10 \% \text{ U}_{\text{s}}$ DC rated operational current $\leq 150 \text{ mA}$ No-load current $\leq 15 \text{ mA}$ Residual current $\leq 0.1 \text{ mA}$ Isolation test voltage $\leq 0.5 \text{ kV}$ Short-circuit protection yes / Cyclic Voltage drop at I_{e} $\leq 1.8 \text{ V}$ Wire breakage/Reverse polarity protection yes / Complete Output function $3\text{-wire, NO contact, PNP}$ Insulation class \square Switching frequency 1 kHz Design Threaded barrel, M8 × 1	Secured operating distance	≤ (0.81 × Sn) mm
Hysteresis 315 % Ambient temperature -30+85 °C Operating voltage 1030 VDC Residual ripple ≤ 10 % U _s DC rated operational current ≤ 150 mA No-load current ≤ 15 mA Residual current ≤ 0.1 mA Isolation test voltage ≤ 0.5 kV Short-circuit protection yes / Cyclic Voltage drop at I _e ≤ 1.8 V Wire breakage/Reverse polarity protection yes / Complete Output function 3-wire, NO contact, PNP Insulation class Switching frequency 1 kHz Design Threaded barrel, M8 × 1	Repeat accuracy	≤ 2 % of full scale
Hysteresis Ambient temperature -30+85 °C Operating voltage 1030 VDC Residual ripple ≤ 10 % U _s DC rated operational current ≤ 150 mA No-load current ≤ 15 mA Residual current ≤ 0.1 mA Isolation test voltage ≤ 0.5 kV Short-circuit protection Voltage drop at I _e Wire breakage/Reverse polarity protection Output function J-wire, NO contact, PNP Insulation class Switching frequency 1 kHz Design Threaded barrel, M8 × 1	Temperature drift	≤ ± 10 %
Ambient temperature -30+85 °C Operating voltage 1030 VDC Residual ripple ≤ 10 % U _s DC rated operational current ≤ 150 mA No-load current ≤ 15 mA Residual current ≤ 0.1 mA Isolation test voltage ≤ 0.5 kV Short-circuit protection yes / Cyclic Voltage drop at I _e ≤ 1.8 V Wire breakage/Reverse polarity protection Output function 3-wire, NO contact, PNP Insulation class □ Switching frequency 1 kHz Design Threaded barrel, M8 × 1		≤ ± 20 %, ≤ -25 °C v ≥ +70 °C
Operating voltage 1030 VDC Residual ripple ≤ 10 % U _{ss} DC rated operational current ≤ 150 mA No-load current ≤ 15 mA Residual current ≤ 0.1 mA Isolation test voltage ≤ 0.5 kV Short-circuit protection yes / Cyclic Voltage drop at I _e ≤ 1.8 V Wire breakage/Reverse polarity protection yes / Complete Output function 3-wire, NO contact, PNP Insulation class □ Switching frequency 1 kHz Design Threaded barrel, M8 × 1	Hysteresis	315 %
Residual ripple ≤ 10 % U _{ss} DC rated operational current ≤ 150 mA No-load current ≤ 15 mA Residual current ≤ 0.1 mA Isolation test voltage ≤ 0.5 kV Short-circuit protection yes / Cyclic Voltage drop at I _e ≤ 1.8 V Wire breakage/Reverse polarity protection yes / Complete Output function 3-wire, NO contact, PNP Insulation class □ Switching frequency 1 kHz Design Threaded barrel, M8 × 1	Ambient temperature	-30+85 °C
DC rated operational current ≤ 150 mA No-load current ≤ 15 mA Residual current ≤ 0.1 mA Isolation test voltage ≤ 0.5 kV Short-circuit protection yes / Cyclic Voltage drop at I_e ≤ 1.8 V Wire breakage/Reverse polarity protection yes / Complete Output function 3-wire, NO contact, PNP Insulation class □ Switching frequency 1 kHz Design Threaded barrel, M8 × 1	Operating voltage	1030 VDC
No-load current ≤ 15 mA Residual current ≤ 0.1 mA Isolation test voltage ≤ 0.5 kV Short-circuit protection yes / Cyclic Voltage drop at I _e ≤ 1.8 V Wire breakage/Reverse polarity protection yes / Complete Output function 3-wire, NO contact, PNP Insulation class □ Switching frequency 1 kHz Design Threaded barrel, M8 × 1	Residual ripple	≤ 10 % U _{ss}
Residual current ≤ 0.1 mA Isolation test voltage ≤ 0.5 kV Short-circuit protection yes / Cyclic Voltage drop at I _e ≤ 1.8 V Wire breakage/Reverse polarity protection yes / Complete Output function 3-wire, NO contact, PNP Insulation class □ Switching frequency 1 kHz Design Threaded barrel, M8 × 1	DC rated operational current	≤ 150 mA
Isolation test voltage ≤ 0.5 kV Short-circuit protection yes / Cyclic Voltage drop at I₀ ≤ 1.8 V Wire breakage/Reverse polarity protection yes / Complete Output function 3-wire, NO contact, PNP Insulation class □ Switching frequency 1 kHz Design Threaded barrel, M8 × 1	No-load current	≤ 15 mA
Short-circuit protection Voltage drop at I _e ≤ 1.8 V Wire breakage/Reverse polarity protection Output function Insulation class Switching frequency Threaded barrel, M8 × 1	Residual current	≤ 0.1 mA
Voltage drop at I _e ≤ 1.8 V Wire breakage/Reverse polarity protection yes / Complete Output function 3-wire, NO contact, PNP Insulation class □ Switching frequency 1 kHz Design Threaded barrel, M8 × 1	Isolation test voltage	≤ 0.5 kV
Wire breakage/Reverse polarity protection yes / Complete Output function 3-wire, NO contact, PNP Insulation class Switching frequency 1 kHz Design Threaded barrel, M8 × 1	Short-circuit protection	yes / Cyclic
Output function 3-wire, NO contact, PNP Insulation class Switching frequency 1 kHz Design Threaded barrel, M8 × 1	Voltage drop at I _e	≤ 1.8 V
Insulation class Switching frequency 1 kHz Design Threaded barrel, M8 × 1	Wire breakage/Reverse polarity protection	yes / Complete
Switching frequency 1 kHz Design Threaded barrel, M8 × 1	Output function	3-wire, NO contact, PNP
Design Threaded barrel, M8 × 1	Insulation class	
2 3 3 9 1	Switching frequency	1 kHz
Dimensions 49 mm	Design	Threaded barrel, M8 × 1
Difference of the control of the con	Dimensions	49 mm

Features

- Threaded barrel, M8 x 1
- Stainless steel, PTFE-coated
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Large switching distance
- High switching frequency
- Recessed mountable
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M8 x 1 male connector

Wiring diagram





Functional principle

Inductive sensors detect metal objects contactless and wear-free. Due to the patented multi-coil system, *uprox*°+ sensors have distinct advantages over conventional sensors. They excel in largest switching distances, maximum flexibility and operational reliability as well as efficient standardization.



Technical data

Housing material	Stainless steel, 1.4427 SO, PTFE-coated
Active area material	Plastic, PP, PTFE-coated
Max. tightening torque housing nut	5 Nm
Electrical connection	Connector, M8 × 1
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP68
MTTF	874 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	LED, Yellow

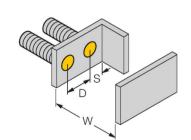
Mounting instructions

Mounting instructions/Description



Distance D	16 mm
Distance W	6 mm
Distance T	24 mm
Distance S	12 mm
Distance G	12 mm
Diameter active area B	Ø 8 mm

All flush mountable *uprox**+ threaded barrel types are also recessed mountable. Safe operation is ensured if the sensor is screwed in by half a turn.







Accessories



Quick-mount bracket with deadstop, chrome-plated brass, male thread M12 x 1. Note: The switching distance of proximity switches may be reduced through the use of quickmount brackets.

6947210

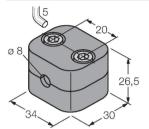
69479

Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6

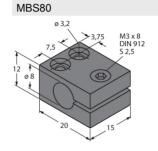
BSS-08

6901322

6945100



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



Mounting clamp for smooth barrel sensors; mounting block material: Anodized aluminum

Wiring accessories

Dimension drawing

Туре

PKGV3M-2/TXL

ldent. no.

6627803



Connection cable, female M8, straight, 3-pin, stainless steel coupling nut, cable length: 2 m, jacket material: PUR, black; cULus approval; other cable lengths and qualities available, see www.turck.com