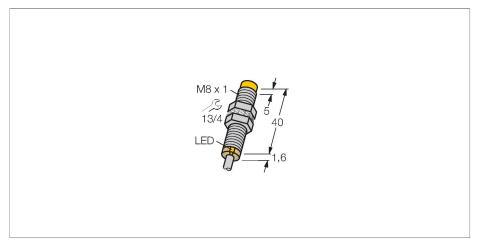
NI6U-EG08-AN6X Inductive Sensor - With Extended Switching Distance



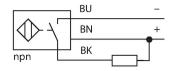
Technical data

ID	Туре	NI6U-EG08-AN6X
Rated switching distance 6 mm Mounting conditions Non-flush Secured operating distance ≤ (0.81 × Sn) mm Repeat accuracy ≤ 2 % of full scale Temperature drift ≤ ±10 % ≤ ± 20 %, ≤ 0 °C Hysteresis 315 % Electrical data Operating voltage 1030 VDC Residual ripple ≤ 10 % U₂₂ 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 I₂ ≤ 1.8 V Wire breakage/Reverse polarity protection Output function 3-wire, NO contact, NPN DC field stability 200 mT AC field stability 200 mT ss limit yes / Cyclic □	ID	4635803
Mounting conditions Non-flush Secured operating distance ≤ (0.81 × Sn) mm Repeat accuracy ≤ 2 % of full scale Temperature drift ≤ ±10 % ≤ ± 20 %, ≤ 0 °C Hysteresis 315 % Electrical data Operating voltage 1030 VDC Residual ripple ≤ 10 % U₂, 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 I₂ ≤ 1.8 V Wire breakage/Reverse polarity protection yes / Complete Output function 3-wire, NO contact, NPN DC field stability 200 mT AC field stability 200 mT Insulation class □	General data	
Secured operating distance $\leq (0.81 \times \text{Sn}) \text{ mm}$ Repeat accuracy $\leq 2 \% \text{ of full scale}$ Temperature drift $\leq \pm 10 \%$ $\leq \pm 20 \%, \leq 0 \degree \text{C}$ Hysteresis 315% Electrical data Operating voltage 1030 VDC Residual ripple $\leq 10 \% \text{ U}_{ss}$ DC rated operational current $\leq 150 \text{ mA}$ No-load current 15 mA Residual current $\leq 0.1 \text{ mA}$ Isolation test voltage $\leq 0.5 \text{ kV}$ Short-circuit protection $2 \times 1.8 \text{ V}$ Wire breakage/Reverse polarity protection $2 \times 1.8 \text{ V}$ Wire breakage/Reverse polarity protection $2 \times 1.8 \text{ V}$ Wire breakage/Reverse polarity protection $2 \times 1.8 \text{ V}$ Wire breakage/Reverse polarity protection $2 \times 1.8 \text{ V}$ Wire breakage/Reverse polarity protection $2 \times 1.8 \text{ V}$ Wire breakage/Reverse polarity protection $2 \times 1.8 \text{ V}$ Wire breakage/Reverse polarity protection $2 \times 1.8 \text{ V}$ Wire breakage/Reverse polarity protection $2 \times 1.8 \text{ V}$ Wire breakage/Reverse polarity protection $2 \times 1.8 \text{ V}$ Wire breakage/Reverse polarity protection $2 \times 1.8 \text{ V}$ Wire breakage/Reverse polarity protection $2 \times 1.8 \text{ V}$ Wire breakage/Reverse polarity protection $2 \times 1.8 \text{ V}$ Wire breakage/Reverse polarity protection $2 \times 1.8 \text{ V}$ Wire breakage/Reverse polarity protection $2 \times 1.8 \text{ V}$ Wire breakage/Reverse polarity protection $2 \times 1.8 \text{ V}$	Rated switching distance	6 mm
Repeat accuracy $\leq 2\%$ of full scale Temperature drift $\leq \pm 10\%$ $\leq \pm 20\%, \leq 0$ °C Hysteresis 315% Electrical data Operating voltage 1030 VDC Residual ripple $\leq 10\%\text{ U}_{ss}$ DC rated operational current $\leq 150\text{ mA}$ No-load current 15 mA Residual current $\leq 0.1\text{ mA}$ Isolation test voltage $\leq 0.5\text{ kV}$ Short-circuit protection $\text{yes} / \text{Cyclic}$ Voltage drop at I_{\circ} $\leq 1.8\text{ V}$ Wire breakage/Reverse polarity protection $\text{yes} / \text{Complete}$ Output function 3-wire , NO contact, NPN DC field stability 200 mT AC field stability 200 mT Insulation class \square	Mounting conditions	Non-flush
Temperature drift $\leq \pm 10 \%$ $\leq \pm 20 \%, \leq 0 ^{\circ} C$ Hysteresis 315% Electrical data Operating voltage 1030 VDC Residual ripple $\leq 10 \% \text{ U}_{ss}$ DC rated operational current $\leq 150 \text{ mA}$ No-load current 15 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_s $\leq 1.8 \text{ V}$ Wire breakage/Reverse polarity protection yes / Complete Output function $3\text{-wire, NO contact, NPN}$ DC field stability 200 mT AC field stability 200 mT Insulation class □	Secured operating distance	≤ (0.81 × Sn) mm
$≤ \pm 20 \%, ≤ 0 ^{\circ}\text{C}$ Hysteresis 315 % Electrical data Operating voltage 1030 VDC Residual ripple $≤ 10 \% \text{U}_{ss}$ DC rated operational current $≤ 150 \text{mA}$ No-load current 15 mA Residual current $≤ 0.1 \text{mA}$ Isolation test voltage $≤ 0.5 \text{kV}$ Short-circuit protection yes / Cyclic Voltage drop at I_{s} $≤ 1.8 \text{V}$ Wire breakage/Reverse polarity protection Output function 3-wire, NO contact, NPN DC field stability 200 mT AC field stability 200 mT _{ss} Insulation class	Repeat accuracy	≤ 2 % of full scale
Hysteresis 315 % Electrical data Operating voltage 1030 VDC Residual ripple ≤ 10 % U₂s 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 I₀ ≤ 1.8 V Wire breakage/Reverse polarity protection Output function 3-wire, NO contact, NPN DC field stability 200 mT AC field stability 200 mTss Insulation class	Temperature drift	≤ ±10 %
Electrical data Operating voltage 1030 VDC Residual ripple ≤ 10 % U₅ 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 I₀ ≤ 1.8 V Wire breakage/Reverse polarity protection Output function 3-wire, NO contact, NPN DC field stability 200 mT AC field stability 200 mT₅ Insulation class □		≤ ± 20 %, ≤ 0 °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, NPN DC field stability 200 mT AC field stability 200 mTss Insulation class □	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, NPN DC field stability 200 mT AC field stability 200 mTss Insulation class □	Electrical data	
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 I₀ ≤ 1.8 V Wire breakage/Reverse polarity protection yes / Complete Output function 3-wire, NO contact, NPN DC field stability 200 mT AC field stability 200 mTss Insulation class □	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 I₀ ≤ 1.8 V Wire breakage/Reverse polarity protection yes / Complete Output function 3-wire, NO contact, NPN DC field stability 200 mT AC field stability 200 mTss Insulation class □	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, NPN DC field stability 200 mT AC field stability 200 mTss Insulation class □	DC rated operational current	≤ 150 mA
Isolation test voltage ≤ 0.5 kV Short-circuit protection yes / Cyclic Voltage drop at I_o ≤ 1.8 V Wire breakage/Reverse polarity protection yes / Complete Output function 3-wire, NO contact, NPN DC field stability 200 mT AC field stability 200 mTss Insulation class \Box	No-load current	15 mA
Short-circuit protection Voltage drop at I₀ Wire breakage/Reverse polarity protection Output function DC field stability AC field stability Insulation class yes / Cyclic yes / Complete yes / Complete yes / Complete	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, NPN DC field stability 200 mT AC field stability 200 mTss Insulation class □	Isolation test voltage	≤ 0.5 kV
Wire breakage/Reverse polarity protection Output function 3-wire, NO contact, NPN DC field stability 200 mT AC field stability 200 mTss	Short-circuit protection	yes / Cyclic
tion Output function 3-wire, NO contact, NPN DC field stability 200 mT AC field stability 200 mTss Insulation class	Voltage drop at I。	≤ 1.8 V
DC field stability 200 mT AC field stability 200 mT _{ss} Insulation class		yes / Complete
AC field stability 200 mTss	Output function	3-wire, NO contact, NPN
Insulation class	DC field stability	200 mT
	AC field stability	200 mT _{ss}
Switching frequency 1 kHz	Insulation class	
	Switching frequency	1 kHz

Features

- ■Threaded barrel, M8 x 1
- Stainless steel, 1.4427 SO
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- ■Large switching distance ■ High switching frequency
- ■Integrated protection against predamping
- Little metal-free spaces
- ■DC 3-wire, 10...30 VDC
- ■NO contact, NPN output
- Cable connection

Wiring diagram



Functional principle

Inductive sensors are designed for wear-free and contactless detection of metal objects. uprox+ sensors have significant advantages due to their patented multi-coil system. They excel thanks to their optimum switching distances, maximum flexibility and operational reliability as well as efficient standardization.

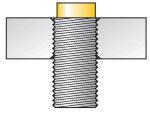


Technical data

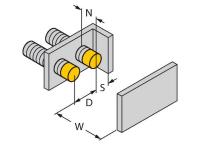
Mechanical data	
Design	Threaded barrel, M8 x 1
Dimensions	42 mm
Housing material	Stainless steel, 1.4427 SO
Active area material	Plastic, PA12-GF30
End cap	Plastic, PP
Max. tightening torque of housing nut	5 Nm
Electrical connection	Cable
Cable quality	Ø 4 mm, LifYY-11Y, PUR, 2 m
Core cross-section	3 x 0.25 mm ²
Environmental conditions	
Ambient temperature	-30+85 °C
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





Distance D	32 mm
Distance W	18 mm
Distance T	32 mm
Distance S	12 mm
Distance G	36 mm
Distance N	12 mm
Diameter active area B	Ø 8 mm



All non-flush mountable uprox®+ threaded barrel sensors can be screwed to the upper edge of the barrel. In this mounting position, the sensor operates safely with a 20 % reduced switching distance.

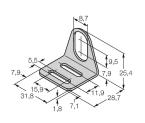


Accessories

BST-08B 6947210

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



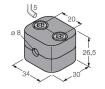


6945008

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

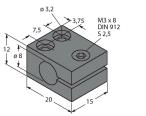
BSS-08 6901322

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



MBS80

MW-08



69479 Mounting clamp for smooth barrel

sensors; mounting block material: Anodized aluminum