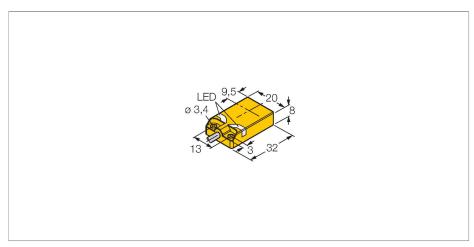


NI10U-QP08-AN6X2 Inductive Sensor – With Extended Switching Distance



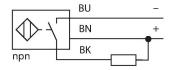
Technical data

ID	Туре	NI10U-QP08-AN6X2
Rated switching distance 10 mm Mounting conditions Non-flush Secured operating distance ≤ (0.81 × Sn) mm Repeat accuracy ≤ 2 % of full scale Temperature drift ≤ ±10 % Hysteresis 315 % Electrical data Operating voltage U₀ Operating voltage U₀ 1030 VDC Ripple U₃ ≤ 10 % U₃mx DC rated operating current I₀ ≤ 200 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 break/reverse polarity protection yes/Complete Output function 3-wire, NO contact, NPN DC field stability 300 mT AC field stability 300 mT₃s Insulation class □ Switching frequency 0.25 kHz Mechanical data Design	ID	1662016
Mounting conditions Non-flush Secured operating distance ≤ (0.81 × Sn) mm Repeat accuracy ≤ 2 % of full scale Temperature drift ≤ ±10 % Hysteresis 315 % Electrical data Operating voltage U ₈ Operating voltage U ₈ 1030 VDC Ripple U _{ss} ≤ 10 % U _{bmas} DC rated operating current I ₈ ≤ 200 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 ₈ ≤ 1.8 V Wire break/reverse polarity protection yes/Complete Output function 3-wire, NO contact, NPN DC field stability 300 mT AC field stability 300 mT AC field stability 300 mTss Insulation class □ Switching frequency 0.25 kHz Mechanical data Design	General data	
Secured operating distance ≤ (0.81 × Sn) mm Repeat accuracy ≤ 2 % of full scale Temperature drift ≤ ±10 % Hysteresis 315 % Electrical data Operating voltage U ₈ 1030 VDC Ripple U ₈ ≤ 10 % U _{8max} DC rated operating current I ₈ ≤ 200 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 ₈ ≤ 1.8 V Wire break/reverse polarity protection yes/Complete Output function 3-wire, NO contact, NPN DC field stability 300 mT AC field stability 300 mT AC field stability 300 mT Switching frequency 0.25 kHz Mechanical data Design Rectangular, QP08	Rated switching distance	10 mm
Repeat accuracy ≤ 2 % of full scale Temperature drift ≤ ±10 % Hysteresis 315 % Electrical data 0 Perating voltage U_B 1030 VDC Ripple U_{ss} ≤ 10 % U_{Bmax} DC rated operating current I_e ≤ 200 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 break/reverse polarity protection yes/Complete Output function 3-wire, NO contact, NPN DC field stability 300 mT AC field stability 300 mT ss Insulation class \Box Switching frequency 0.25 kHz Mechanical data Design Rectangular, QP08	Mounting conditions	Non-flush
Temperature drift ≤ ±10 % Hysteresis 315 % Electrical data Operating voltage U _B 1030 VDC Ripple U _B ≤ 10 % U _{Bmax} DC rated operating current I _B ≤ 200 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 _B ≤ 1.8 V Wire break/reverse polarity protection yes/Complete Output function 3-wire, NO contact, NPN DC field stability 300 mT AC field stability 300 mT AC field stability 300 mT Switching frequency 0.25 kHz Mechanical data Design Rectangular, QP08	Secured operating distance	≤ (0.81 × Sn) mm
Hysteresis 315 % Electrical data Operating voltage U _s 1030 VDC Ripple U _{ss} ≤ 10 % U _{Bmax} DC rated operating current I _s ≤ 200 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 _s ≤ 1.8 V Wire break/reverse polarity protection yes/Complete Output function 3-wire, NO contact, NPN DC field stability 300 mT AC field stability 300 mT AC field stability 300 mT Switching frequency 0.25 kHz Mechanical data Design Rectangular, QP08	Repeat accuracy	≤ 2 % of full scale
Electrical data Operating voltage U _B 1030 VDC Ripple U _{ss} ≤ 10 % U _{Bmax} DC rated operating current I _e ≤ 200 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 ✓ 1.8 V Wire break/reverse polarity protection DC field stability 300 mT AC field stability 300 mT _{ss} Insulation class Switching frequency 0.25 kHz Mechanical data Design Rectangular, QP08	Temperature drift	≤ ±10 %
Operating voltage U _B 1030 VDC Ripple U _{ss} ≤ 10 % U _{Bmax} DC rated operating current I _e ≤ 200 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 break/reverse polarity protection yes/Complete Output function 3-wire, NO contact, NPN DC field stability 300 mT AC field stability 300 mTss Insulation class □ Switching frequency 0.25 kHz Mechanical data Design Rectangular, QP08	Hysteresis	315 %
Ripple U _{ss} ≤ 10 % U _{Bmax} DC rated operating current I _e ≤ 200 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 break/reverse polarity protection yes/Complete Output function 3-wire, NO contact, NPN DC field stability 300 mT AC field stability 300 mTss Insulation class □ Switching frequency 0.25 kHz Mechanical data Design Rectangular, QP08	Electrical data	
DC rated operating current I₀ ≤ 200 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 break/reverse polarity protection yes/Complete Output function 3-wire, NO contact, NPN DC field stability 300 mT AC field stability 300 mTsss Insulation class □ Switching frequency 0.25 kHz Mechanical data Design Rectangular, QP08	Operating voltage U _B	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 break/reverse polarity protection yes/Complete Output function 3-wire, NO contact, NPN DC field stability 300 mT AC field stability 300 mTss Insulation class □ Switching frequency 0.25 kHz Mechanical data Rectangular, QP08	Ripple U _{ss}	≤ 10 % U _{Bmax}
Residual current ≤ 0.1 mA Isolation test voltage 0.5 kV Short-circuit protection yes/Cyclic Voltage drop at I₀ ≤ 1.8 V Wire break/reverse polarity protection yes/Complete Output function 3-wire, NO contact, NPN DC field stability 300 mT AC field stability 300 mT₅s Insulation class □ Switching frequency 0.25 kHz Mechanical data Rectangular, QP08	DC rated operating current I _o	≤ 200 mA
Isolation test voltage 0.5 kV Short-circuit protection yes/Cyclic Voltage drop at I₀ ≤ 1.8 V Wire break/reverse polarity protection yes/Complete Output function 3-wire, NO contact, NPN DC field stability 300 mT AC field stability 300 mTss Insulation class □ Switching frequency 0.25 kHz Mechanical data Rectangular, QP08	No-load current	≤ 15 mA
Short-circuit protection Voltage drop at I₀ Wire break/reverse polarity protection Output function DC field stability AC field stability Insulation class Switching frequency Mechanical data Design Ves/Cyclic yes/Cyclic	Residual current	≤ 0.1 mA
Voltage drop at I₀ ≤ 1.8 V Wire break/reverse polarity protection yes/Complete Output function 3-wire, NO contact, NPN DC field stability 300 mT AC field stability 300 mTss Insulation class □ Switching frequency 0.25 kHz Mechanical data Rectangular, QP08	Isolation test voltage	0.5 kV
Wire break/reverse polarity protection yes/Complete Output function 3-wire, NO contact, NPN DC field stability 300 mT AC field stability 300 mTss Insulation class □ Switching frequency 0.25 kHz Mechanical data Design Rectangular, QP08	Short-circuit protection	yes/Cyclic
Output function 3-wire, NO contact, NPN DC field stability 300 mT AC field stability 300 mT _{ss} Insulation class Switching frequency 0.25 kHz Mechanical data Design Rectangular, QP08	Voltage drop at I _e	≤ 1.8 V
DC field stability AC field stability 300 mT 300 mT Insulation class Switching frequency 0.25 kHz Mechanical data Design Rectangular, QP08	Wire break/reverse polarity protection	yes/Complete
AC field stability Insulation class Switching frequency Mechanical data Design Rectangular, QP08	Output function	3-wire, NO contact, NPN
Insulation class Switching frequency 0.25 kHz Mechanical data Design Rectangular, QP08	DC field stability	300 mT
Switching frequency 0.25 kHz Mechanical data Design Rectangular, QP08	AC field stability	300 mT _{ss}
Mechanical data Design Rectangular, QP08	Insulation class	
Design Rectangular, QP08	Switching frequency	0.25 kHz
	Mechanical data	
Dimensions 32 x 20 x 8 mm	Design	Rectangular, QP08
	Dimensions	32 x 20 x 8 mm

Features

- Rectangular, height 8 mm
- Active face on top
- ■Plastic, PP
- Factor 1 for all metals
- ■Increased switching distance
- Resistant to magnetic fields
- Mountable on metal
- ■DC 3-wire, 10...30 VDC
- ■NO contact, NPN output
- Cable connection

Wiring diagram



Functional principle

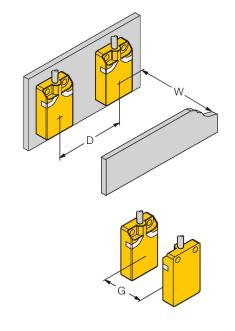
Inductive sensors are designed for wear-free and contactless detection of metal objects. uprox+ sensors have significant advantages due to their patented multi-coil system. They excel thanks to their optimum switching distances, maximum flexibility and operational reliability as well as efficient standardization.

Technical data

Housing material	Plastic, PP, Yellow
Active area material	PP, yellow
Electrical connection	Cable
Cable quality	Ø 3 mm, Gray, Lif9Y-11Y, PUR, 2 m
	Suited for E-ChainSystems® acc. to manufacturers declaration H1063M
Core cross-section	3 x 0.14 mm ²
Environmental conditions	
Ambient temperature	-25+70 °C
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
Power-on indication	LED, Green
Switching state	LED, Yellow

Mounting instructions

Mounting instructions/Description



Distance D	40 mm
Distance W	24 mm
Distance G	48 mm
Width active area B	20 mm