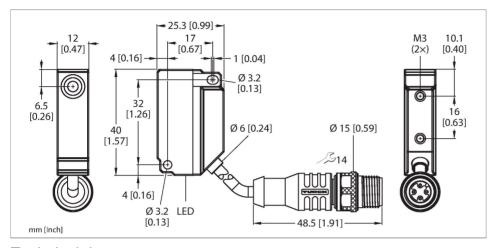


BI5U-Q12-VP6X2-0.2-RS4.4T Inductive Sensor – With Extended Switching Distance





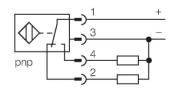
Technical data

ID	Туре	BI5U-Q12-VP6X2-0.2-RS4.4T
Rated switching distance 5 mm Mounting conditions Flush Secured operating distance ≤ (0.81 × Sn) mm Repeat accuracy ≤ 2 % of full scale Hysteresis 315 % Electrical data Operating voltage U _B Operating voltage U _B 1030 VDC Ripple U _{ss} ≤ 10 % U _{Broax} 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 4-wire, Complementary contact, PNP DC field stability 300 mT AC field stability 300 mT Switching frequency 1 kHz Mechanical data	ID	1635595
Mounting conditions Flush Secured operating distance ≤ (0.81 × Sn) mm Repeat accuracy ≤ 2 % of full scale Hysteresis 315 % Electrical data 0perating voltage U _B Operating voltage U _B 1030 VDC Ripple U _{SS} ≤ 10 % U _{Brinax} 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 4-wire, Complementary contact, PNP DC field stability 300 mT AC field stability 300 mT Switching frequency 1 kHz Mechanical data	General data	
Secured operating distance ≤ (0.81 × Sn) mm Repeat accuracy ≤ 2 % of full scale Hysteresis 315 % Electrical data 1030 VDC Ripple U _{ss} ≤ 10 % U _{Brindax} 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 4-wire, Complementary contact, PNP DC field stability 300 mT AC field stability 300 mT _{ss} Switching frequency 1 kHz Mechanical data	Rated switching distance	5 mm
Repeat accuracy ≤ 2 % of full scale Hysteresis 315 % Electrical data Operating voltage U _B 1030 VDC Ripple U _{ss} ≤ 10 % U _{Bmax} DC rated operating current I _c ≤ 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 _c ≤ 1.8 V Wire break/reverse polarity protection yes/Complete Output function 4-wire, Complementary contact, PNP DC field stability 300 mT AC field stability 300 mT Switching frequency 1 kHz Mechanical data	Mounting conditions	Flush
Hysteresis Electrical data Operating voltage U _B 1030 VDC Ripple U _{ss} ≤ 10 % U _{Brinax} DC rated operating current I _e No-load current ≤ 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 Vire break/reverse polarity protection Qutput function 4-wire, Complementary contact, PNP DC field stability 300 mT AC field stability 300 mT Switching frequency 1 kHz Mechanical data	Secured operating distance	≤ (0.81 × Sn) mm
Electrical data Operating voltage U_B 1030 VDC Ripple U_{ss} $\leq 10 \% U_{Bmax}$ DC rated operating current I_s $\leq 200 \text{ mA}$ No-load current $\leq 15 \text{ mA}$ Residual current $\leq 0.1 \text{ mA}$ Isolation test voltage 0.5 kV Short-circuit protection yes/Cyclic Voltage drop at I_s $\leq 1.8 \text{ V}$ Wire break/reverse polarity protection Output function 4-wire , Complementary contact, PNP DC field stability 300 mT AC field stability 300 mT Switching frequency 1 kHz Mechanical data	Repeat accuracy	≤ 2 % of full scale
$\begin{array}{llllllllllllllllllllllllllllllllllll$	Hysteresis	315 %
Ripple U _{ss} $\leq 10 \% U_{\text{Bmax}}$ DC rated operating current I _e $\leq 200 \text{ mA}$ No-load current $\leq 15 \text{ mA}$ Residual current $\leq 0.1 \text{ mA}$ Isolation test voltage $= 0.5 \text{ kV}$ Short-circuit protection $= 0.5 \text{ kV}$ Wire break/reverse polarity protection $= 0.5 \text{ kV}$ Wire break/reverse polarity protection $= 0.5 \text{ kV}$ DC field stability $= 0.5 \text{ kV}$ AC field stability $= 0.5 \text{ kV}$ Southing frequency $= 0.5 \text{ kV}$ Mechanical data	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 4-wire, Complementary contact, PNP DC field stability 300 mT AC field stability 300 mTss Switching frequency 1 kHz Mechanical data	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 4-wire, Complementary contact, PNP DC field stability 300 mT AC field stability 300 mTss Switching frequency 1 kHz Mechanical data	Ripple U _{ss}	≤ 10 % U _{Bmax}
$ \begin{array}{llllllllllllllllllllllllllllllllllll$	DC rated operating current I _e	≤ 200 mA
	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 Switching frequency Mechanical data yes/Cyclic yes/Cyclic ≤ 1.8 V yes/Complete 4-wire, Complementary contact, PNP 300 mT 300 mT 1 kHz	Residual current	≤ 0.1 mA
Voltage drop at I₀ ≤ 1.8 V Wire break/reverse polarity protection yes/Complete Output function 4-wire, Complementary contact, PNP DC field stability 300 mT AC field stability 300 mTss Switching frequency 1 kHz Mechanical data	Isolation test voltage	0.5 kV
Wire break/reverse polarity protection yes/Complete Output function 4-wire, Complementary contact, PNP DC field stability 300 mT AC field stability 300 mT _{ss} Switching frequency 1 kHz Mechanical data	Short-circuit protection	yes/Cyclic
Output function 4-wire, Complementary contact, PNP DC field stability 300 mT AC field stability 300 mT _{ss} Switching frequency 1 kHz Mechanical data	Voltage drop at I _e	≤ 1.8 V
DC field stability 300 mT AC field stability 300 mT _{ss} Switching frequency 1 kHz Mechanical data	Wire break/reverse polarity protection	yes/Complete
AC field stability 300 mT _{ss} Switching frequency 1 kHz Mechanical data	Output function	4-wire, Complementary contact, PNP
Switching frequency 1 kHz Mechanical data	DC field stability	300 mT
Mechanical data	AC field stability	300 mT _{ss}
	Switching frequency	1 kHz
Design Rectangular, Q12	Mechanical data	
	Design	Rectangular, Q12

Features

- Rectangular, height 12mm
- Active face, lateral
- Plastic, PA12-GF30
- Factor 1 for all metals
- ■Increased switching distance
- ■Protection class IP68
- Resistant to magnetic fields
- Mountable on metal
- ■DC 4-wire, 10...30 VDC
- Changeover contact, PNP output
- Cable with male end M12 x 1

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



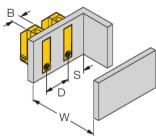
Technical data

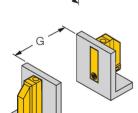
Dimensions	40 x 26 x 12 mm
Housing material	Plastic, PA12-GF30
Active area material	PA12-GF30
Material coupling nut	metal, CuZn, nickel-plated
Electrical connection	Cable with connector, M12 × 1
Cable quality	Ø 4 mm, LifYY-11Y, PUR, 0.2 m
Core cross-section	4 x 0.25 mm ²
Environmental conditions	
Ambient temperature	-25+70 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP68
	1600
MTTF	874 years acc. to SN 29500 (Ed. 99) 40 °C
MTTF Power-on indication	874 years acc. to SN 29500 (Ed. 99) 40
	874 years acc. to SN 29500 (Ed. 99) 40 °C

distances, maximum flexibility and operational reliability as well as efficient standardization.

Mounting instructions

Mounting instructions/Description







Distance D	48 mm
Distance W	25 mm
Distance S	12 mm
Distance G	50 mm
Width active area B	12 mm

The sensors can be mounted directly side by side if a sensor with offset oscillation frequency Bi5U-Q12.../F2 is used.