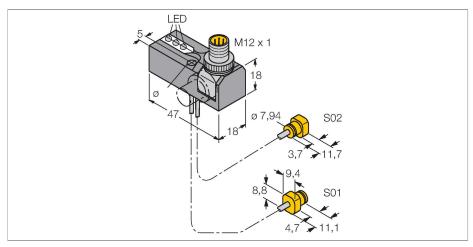


NI2-K08Q-0.095/0.11-BDS-2AP6X3-H1141/S34 Inductive Sensor – Monitoring Kit for Power Clamps



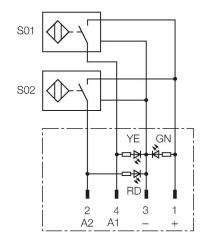
Technical data

ID	Туре	NI2-K08Q-0.095/0.11-BDS-2AP6X3- H1141/S34	
ic fields General data Rated switching distance 1.2 mm For S01 sensor, 2 mm for S02 sensor Mounting conditions Non-flush Secured operating distance ≤ (0.81 × Sn) mm Correction factors St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4 Repeat accuracy ≤ 2 % of full scale Temperature drift ≤ ±10 % Hysteresis 315 % Electrical data Operating voltage U _s 1030 VDC Ripple U _s ≤ 10 % U _{smax} 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 Voltage drop at I _s ≤ 1.8 V Wire break/reverse polarity protection Output function 4-wire, NO contact, PNP Smallest operating current ≥ 1 mA	ID	1650124	
Rated switching distance For S01 sensor, 2 mm for S02 sensor Mounting conditions Non-flush Secured operating distance ≤ (0.81 × Sn) mm Correction factors St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4 Repeat accuracy ≤ 2 % of full scale 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 Solution test voltage 0.5 kV Short-circuit protection Voltage drop at I _B ≤ 1.8 V Wire break/reverse polarity protection Output function St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4 1030 vDC 2 2 % of full scale ≤ 10 % U _{Bmax} 5 10 % U _{Bmax} 5 10 % U _{Bmax} 5 10 mA Residual current ≤ 0.1 mA Isolation test voltage 0.5 kV Short-circuit protection Voltage drop at I _B ≤ 1.8 V Wire break/reverse polarity protection Complete Output function 4-wire, NO contact, PNP	Special version		
For S01 sensor, 2 mm for S02 sensor Mounting conditions Non-flush Secured operating distance ≤ (0.81 × Sn) mm Correction factors St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4 Repeat accuracy ≤ 2 % of full scale Temperature drift ≤ ±10 % Hysteresis 315 % Electrical data Operating voltage U _B 1030 VDC Ripple U _{ss} ≤ 10 % U _{Bmax} DC rated operating current I _B Solution test voltage 0.5 kV Short-circuit protection Voltage drop at I _B ≤ 1.8 V Wire break/reverse polarity protection Complete Output function Smallest operating current ≥ 1 mA	General data		
Mounting conditions Non-flush Secured operating distance ≤ $(0.81 \times Sn)$ mm Correction factors St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4 Repeat accuracy ≤ 2 % of full scale Temperature drift ≤ ±10 % Hysteresis 315 % Electrical data Operating voltage Us Operating voltage Us 1030 VDC Ripple Uss ≤ 10 % Usmax DC rated operating current Is ≤ 200 mA No-load current ≤ 15 mA Residual current ≤ 0.1 mA Isolation test voltage 0.5 kV Short-circuit protection yes/Thermal Voltage drop at Is ≤ 1.8 V Wire break/reverse polarity protection Complete Output function 4-wire, NO contact, PNP Smallest operating current ≥ 1 mA	Rated switching distance	1.2 mm	
Secured operating distance ≤ $(0.81 \times Sn)$ mm Correction factors St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4 Repeat accuracy ≤ 2 % of full scale Temperature drift ≤ ±10 % Hysteresis 315 % Electrical data Operating voltage U_B 1030 VDC Ripple U_{as} ≤ 10 % U_{Bmax} DC rated operating current I_a ≤ 200 mA No-load current ≤ 15 mA Residual current ≤ 0.1 mA Isolation test voltage 0.5 kV Short-circuit protection yes/Thermal Voltage drop at I_a ≤ 1.8 V Wire break/reverse polarity protection Complete Output function 4-wire, NO contact, PNP Smallest operating current ≥ 1 mA		For S01 sensor, 2 mm for S02 sensor	
Correction factors St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4 Repeat accuracy ≤ 2 % of full scale Temperature drift $≤ \pm 10$ % Hysteresis 315 % Electrical data Operating voltage U _B 1030 VDC Ripple U _{ss} $≤ 10$ % U _{Bmax} DC rated operating current I _e $≤ 200 \text{ mA}$ No-load current $≤ 15 \text{ mA}$ Residual current $≤ 0.1 \text{ mA}$ Isolation test voltage 0.5 kV Short-circuit protection yes/Thermal Voltage drop at I _e $≤ 1.8 \text{ V}$ Wire break/reverse polarity protection Output function 4-wire, NO contact, PNP Smallest operating current $≤ 1 \text{ mA}$	Mounting conditions	Non-flush	
	Secured operating distance	≤ (0.81 × Sn) mm	
Temperature drift $≤ \pm 10 \%$ Hysteresis 315% Electrical data Operating voltage U_B 1030 VDC Ripple U_{BS} $≤ 10 \% U_{Bmax}$ DC rated operating current I_C $≤ 200 \text{ mA}$ No-load current $≤ 15 \text{ mA}$ Residual current $≤ 0.1 \text{ mA}$ Isolation test voltage 0.5 kV Short-circuit protection $yes/Thermal$ Voltage drop at I_C $≤ 1.8 \text{ V}$ Wire break/reverse polarity protection 0.5 complete Output function 0.5 complete Output function 0.5 complete Smallest operating current 0.5 complete	Correction factors		
Hysteresis 315 % 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 Voltage drop at I _e 0.4 wire, NO contact, PNP Smallest operating current ≥ 1 mA	Repeat accuracy	≤ 2 % of full scale	
Electrical data Operating voltage U_B 1030 VDC Ripple U_{ss} $\leq 10 \% U_{Bmax}$ 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 kV Short-circuit protection yes/Thermal Voltage drop at I_e $\leq 1.8 \text{ V}$ Wire break/reverse polarity protection Complete Output function 4-wire, NO contact, PNP Smallest operating current $\geq 1 \text{ mA}$	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/Thermal Voltage drop at I_e ≤ 1.8 V Wire break/reverse polarity protection Complete Output function 4-wire, NO contact, PNP Smallest operating current ≥ 1 mA	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/Thermal Voltage drop at I _e ≤ 1.8 V Wire break/reverse polarity protection Complete Output function 4-wire, NO contact, PNP Smallest operating current ≥ 1 mA	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/Thermal Voltage drop at I₀ ≤ 1.8 V Wire break/reverse polarity protection Complete Output function 4-wire, NO contact, PNP Smallest operating current ≥ 1 mA	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/Thermal Voltage drop at I₀ ≤ 1.8 V Wire break/reverse polarity protection Complete Output function 4-wire, NO contact, PNP Smallest operating current ≥ 1 mA	Ripple U _{ss}	≤ 10 % U _{Bmax}	
Residual current ≤ 0.1 mA Isolation test voltage 0.5 kV Short-circuit protection yes/Thermal Voltage drop at I₀ ≤ 1.8 V Wire break/reverse polarity protection Complete Output function 4-wire, NO contact, PNP Smallest operating current ≥ 1 mA	DC rated operating current I _o	≤ 200 mA	
Isolation test voltage 0.5 kV Short-circuit protection yes/Thermal Voltage drop at I₀ ≤ 1.8 V Wire break/reverse polarity protection Complete Output function 4-wire, NO contact, PNP Smallest operating current ≥ 1 mA	No-load current	≤ 15 mA	
Short-circuit protection yes/Thermal Voltage drop at I₀ ≤ 1.8 V Wire break/reverse polarity protection Complete Output function 4-wire, NO contact, PNP Smallest operating current ≥ 1 mA	Residual current	≤ 0.1 mA	
Voltage drop at I₀ ≤ 1.8 V Wire break/reverse polarity protection Complete Output function 4-wire, NO contact, PNP Smallest operating current ≥ 1 mA	Isolation test voltage	0.5 kV	
Wire break/reverse polarity protection Complete Output function 4-wire, NO contact, PNP Smallest operating current ≥ 1 mA	Short-circuit protection	yes/Thermal	
Output function 4-wire, NO contact, PNP Smallest operating current ≥ 1 mA	Voltage drop at I。	≤ 1.8 V	
Smallest operating current ≥ 1 mA	Wire break/reverse polarity protection	Complete	
	Output function	4-wire, NO contact, PNP	
Switching frequency 0.03 kHz	Smallest operating current	≥ 1 mA	
	Switching frequency	0.03 kHz	

Features

- BDS power block with two connected sensors and LEDs
- Robust rotatable connector 0°, 45° and 90°, for optimal cable routing
- Plastic, Trogamid
- Resistant to magnetic fields (weld-resistant), for DC and AC fields up to 100 mT
- ■2 x NO contact, PNP output
- DC 4-wire, 10...30 VDC

Wiring diagram



Functional principle

TURCK offers special monitoring kits, consisting of two miniature sensors, as a convenient solution for "Open/Closed" detection on pneumatic power clamps. This product line provides almost unlimited combination possibilities, comprising four different power blocks and over 40 different modular sensor types.



Technical data

Mechanical data		
Design	Monitoring Kit for Spanners, K08Q	
Dimensions	47 x 18 x 18 mm	
Housing material	Plastic, Trogamit	
Active area material	Plastic, PA12-GF20	
Electrical connection	Connector, M12 × 1	
Cable quality	Ø 2 mm, Gray, Lif9Y-11Y, PUR, 0.095 m, 0.11 m	
Core cross-section	3 x 0.08 mm²	
Litz wire	40 x0.05 mm	
Environmental conditions		
Ambient temperature	-25+70 °C	
Vibration resistance	55 Hz (1 mm)	
Shock resistance	30 g (11 ms)	
Protection class	IP67	
MTTF	2283 years acc. to SN 29500 (Ed. 99) 40 °C	
Power-on indication	LED, Green	
Switching state	2 × LEDs, Yellow/red	

Mounting instructions

Mounting instructions/Description



The sensor should only be mounted in the correspondent retainer.

The sensor is adjusted to the mounting characteristics of the retainer. Deviant mounting may cause unpredictable performance of the sensor. Flush mounting without leaving a gap may lead to uncontrolled switching of the sensor.

Accessories

Dimension drawing	Туре	ID	
	RKC4.4T-2/TEL	6625013	Connection cable, M12 female
			connector, straight, 4-pin, cable len



2 m, jacket material: PVC, black; cULus approval