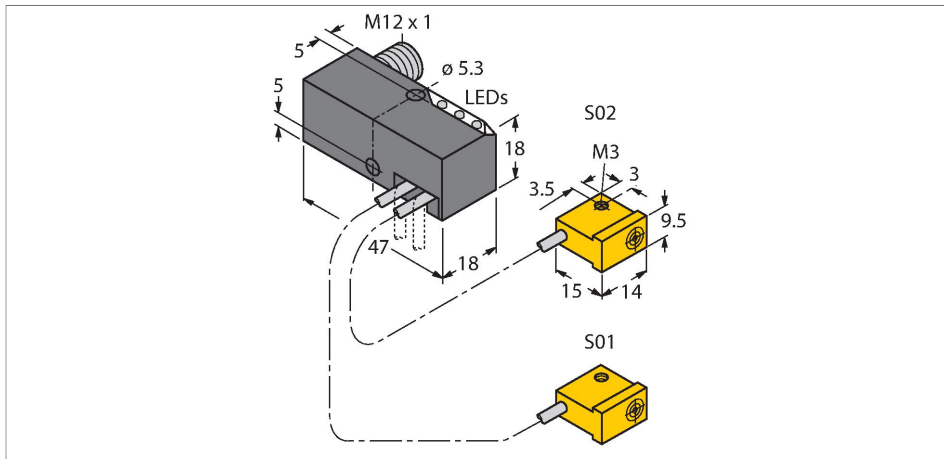


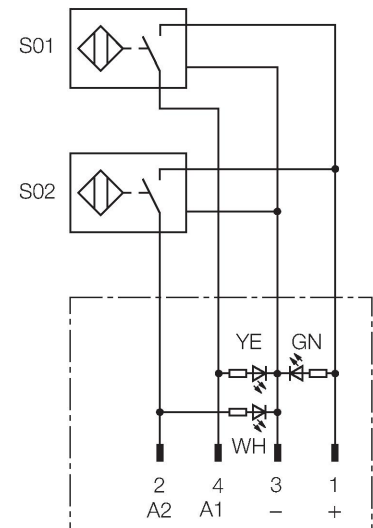
# NI2-Q9.5-AP6-0.1-FS4.4X3/S1173 Inductive Sensor – Monitoring Kit for Power Clamps



## Features

- Q9.5 power block with two connected sensors and LEDs
- Relocatable block 0°...90°, with cross drilling for flexible cable routing
- Plastic, PP GR-20
- 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

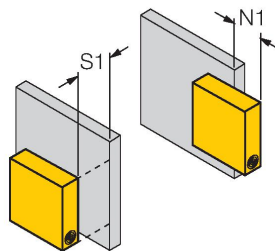
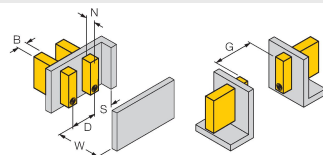
|                                           |                                                                                                                                                                    |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type                                      | NI2-Q9.5-AP6-0.1-FS4.4X3/S1173                                                                                                                                     |
| ID no.                                    | 1650107                                                                                                                                                            |
| Special version                           | S1173 corresponds to:<br>Function for DeviceNet, defined length at connector FS4.4/FS4.4K or FSF5.5/FSF5.5K (with PE connection) or FS4.4X3 and S02 with white LED |
| Rated switching distance                  | 2 mm                                                                                                                                                               |
| Mounting conditions                       | Non-flush                                                                                                                                                          |
| Secured operating distance                | $\leq (0.81 \times S_n) \text{ mm}$                                                                                                                                |
| Correction factors                        | St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4                                                                                                                |
| Repeat accuracy                           | $\leq 2 \text{ \% of full scale}$                                                                                                                                  |
| Temperature drift                         | $\leq \pm 10 \text{ \%}$                                                                                                                                           |
| Hysteresis                                | 3...15 %                                                                                                                                                           |
| Ambient temperature                       | -25...+70 °C                                                                                                                                                       |
| Operating voltage                         | 10...30 VDC                                                                                                                                                        |
| Residual ripple                           | $\leq 10 \text{ \% } U_{ss}$                                                                                                                                       |
| DC rated operational current              | $\leq 150 \text{ mA}$                                                                                                                                              |
| No-load current                           | $\leq 20 \text{ mA}$                                                                                                                                               |
| Residual current                          | $\leq 0.1 \text{ mA}$                                                                                                                                              |
| Isolation test voltage                    | $\leq 0.5 \text{ kV}$                                                                                                                                              |
| Short-circuit protection                  | yes / Cyclic                                                                                                                                                       |
| Voltage drop at $I_o$                     | $\leq 1.8 \text{ V}$                                                                                                                                               |
| Wire breakage/Reverse polarity protection | Complete                                                                                                                                                           |
| Output function                           | 4-wire, NO contact, PNP                                                                                                                                            |

## Technical data

|                            |                                            |
|----------------------------|--------------------------------------------|
| Switching frequency        | 0.03 kHz                                   |
| <b>Design</b>              | Monitoring kit for power clamps, Q9,5      |
| Dimensions                 | 47 x 18 x 18 mm                            |
| Housing material           | Metal, PBT-GF20-V0                         |
| Active area material       | Plastic, PP GR-20                          |
| Electrical connection      | Connector, M12 × 1                         |
| Cable quality              | Ø 2 mm, Gray, Lif9Y-11Y, PUR, 0.1 m        |
| Core cross-section         | 3 x 0.08 mm <sup>2</sup>                   |
| Litz wire                  | 40 x 0.05 mm                               |
| 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 |
| <b>Power-on indication</b> | LED, Green                                 |
| Switching state            | 2 × LEDs, Yellow/White                     |

## Mounting instructions

### Mounting instructions/Description



|                     |         |
|---------------------|---------|
| Distance D          | 3 x B   |
| Distance W          | 3 x Sn  |
| Distance S          | 1.5 x B |
| Distance G          | 6 x Sn  |
| Distance N          | 2 x Sn  |
| Width active area B | 6.5 mm  |

Please note, non-flush mounting of this sensor is obligatory.

The following conditions allow semi-flush mounting:

N1 = 0 mm and S1 = 1 mm or

N1 = 1 mm and S1 = 0 mm

These values apply for mounting in aluminium

N1 = 0 mm and S1 = 5 mm or

N1 = 5 mm and S1 = 0 mm

These values apply for mounting in St37.