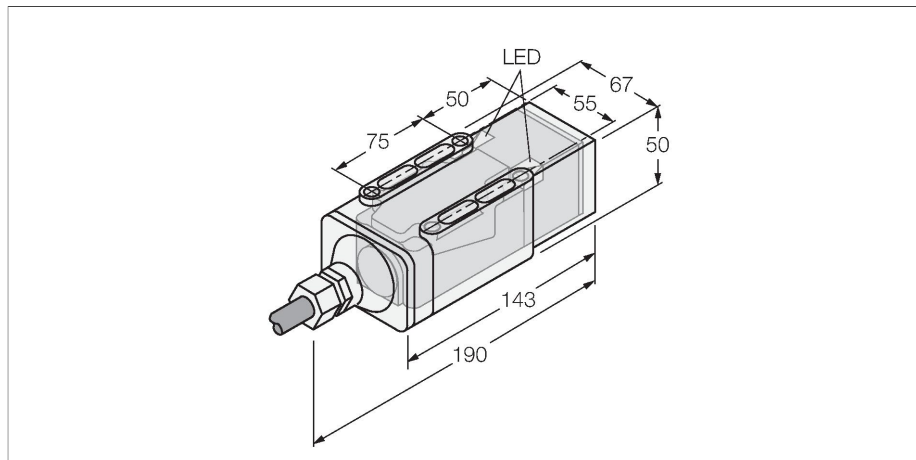


# NI35-CP40-VP4X2/S369-F 30M

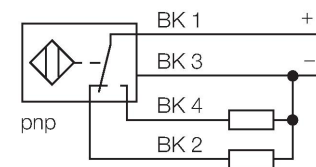
## Inductive Sensor – For Underwater Applications



### Features

- Rectangular, height 67 mm
- UV and ozone resistance
- Plastic, Ultem
- Sensor potted in the housing
- Protection class IP68, 50 m water column
- DC 4-wire, 10...65 VDC
- Changeover contact, PNP output
- Cable connection

### Wiring diagram



### Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.

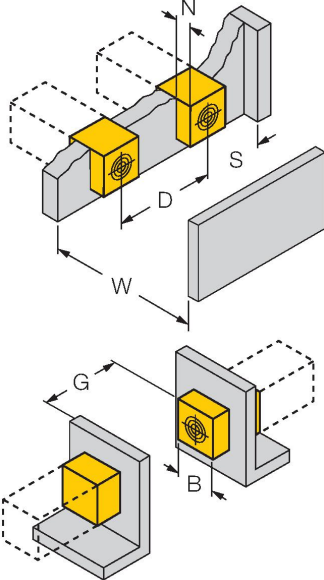
### Technical data

|                                        |                                                                                                                                       |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Type                                   | NI35-CP40-VP4X2/S369-F 30M                                                                                                            |
| ID                                     | 1569425                                                                                                                               |
| Special version                        | S369 Corresponds to: Ni / Bi...-CP40-...../ S369-F o. T: with XX m ÖLFLEX rugged 215C 4x0,5 sw1-sw4 in SG40/2 potted (F=Front; T=Top) |
| <b>General data</b>                    |                                                                                                                                       |
| Rated switching distance               | 35 mm                                                                                                                                 |
| Mounting conditions                    | Non-flush                                                                                                                             |
| Secured operating distance             | $\leq (0.81 \times S_n)$ mm                                                                                                           |
| Correction factors                     | St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4                                                                                   |
| Repeat accuracy                        | $\leq 2$ % of full scale                                                                                                              |
| Temperature drift                      | $\leq \pm 10$ %                                                                                                                       |
| Hysteresis                             | 3...15 %                                                                                                                              |
| <b>Electrical data</b>                 |                                                                                                                                       |
| Operating voltage $U_B$                | 10...65 VDC                                                                                                                           |
| Ripple $U_{ss}$                        | $\leq 10$ % $U_{Bmax}$                                                                                                                |
| DC rated operating current $I_o$       | $\leq 200$ mA                                                                                                                         |
| No-load current                        | $\leq 15$ mA                                                                                                                          |
| Residual current                       | $\leq 0.1$ mA                                                                                                                         |
| Isolation test voltage                 | 0.5 kV                                                                                                                                |
| Short-circuit protection               | yes/Cyclic                                                                                                                            |
| Voltage drop at $I_o$                  | $\leq 1.8$ V                                                                                                                          |
| Wire break/reverse polarity protection | yes/Complete                                                                                                                          |
| Output function                        | 4-wire, Complementary contact, PNP                                                                                                    |
| Insulation class                       | □                                                                                                                                     |
| Switching frequency                    | 0.15 kHz                                                                                                                              |

Technical data

| Mechanical data          |                                         |
|--------------------------|-----------------------------------------|
| Design                   | Rectangular, CP40                       |
| Dimensions               | 190 x 67 x 50 mm                        |
| Housing material         | Plastic, Ultem                          |
| Active area material     | Plastic, Ultem                          |
| Electrical connection    | Cable                                   |
| Cable quality            | Ø 6.6 mm, Ölflex rugged 215C, TPE, 30 m |
| Core cross-section       | 4 x 0.5 mm <sup>2</sup>                 |
| Environmental conditions |                                         |
| Ambient temperature      | -25...+70 °C                            |
| Vibration resistance     | 55 Hz (1 mm)                            |
| Shock resistance         | 30 g (11 ms)                            |
| Protection class         | IP68                                    |
| Power-on indication      | 2 × LEDs, Green                         |
| Switching state          | 2 × LEDs, Yellow                        |

Mounting instructions

| Mounting instructions/Description                                                   |                   |         |
|-------------------------------------------------------------------------------------|-------------------|---------|
|  | Distance D        | 4.5 x B |
|                                                                                     | Distance W        | 3 x Sn  |
|                                                                                     | Distance S        | 1.5 x B |
|                                                                                     | Distance G        | 6 x Sn  |
|                                                                                     | Distance N        | 1 x B   |
|                                                                                     | Width active area | 40 mm   |
|                                                                                     | B                 |         |