



## Short version

### Features



- Can be installed flush or non-flush in metal
- PNP or NPN output
- Normally open function
- Short-circuit protection (pulsed)
- Robust brass housing, nickel-plating with fine thread M30 x 1.5 mm
- Cable or connector
- Enclosure rating IP 67
- LED status indicator

### Accessories

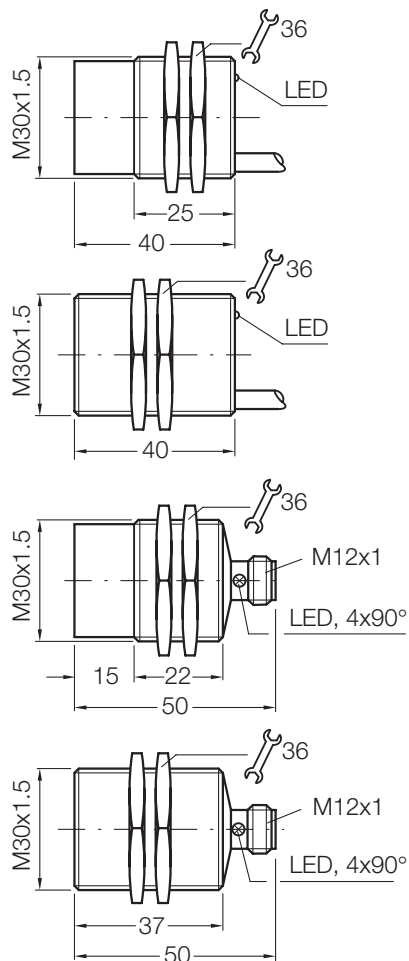
Round connectors  
Mounting bracket

# Inductive proximity sensors

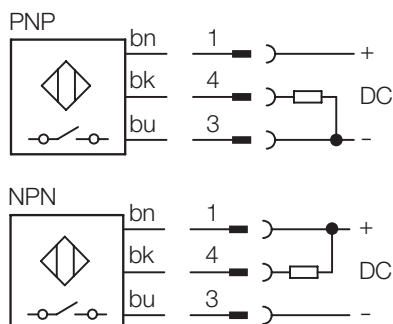
## IM 30 series, sensing range 10 / 15 mm

### DC 3-wire, metal housing

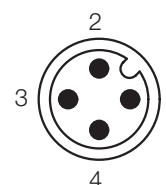
Dimensions in mm



### Connection diagram



| Wire colour | Contact | Assignment |
|-------------|---------|------------|
| bn brown    | 1       | + V DC     |
| bk black    | 4       | NO         |
| bu blue     | 3       | - V DC     |



## Electrical and mechanical data

|                                                         |                      |                                          |                                  |
|---------------------------------------------------------|----------------------|------------------------------------------|----------------------------------|
| <b>Operating voltage</b> $U_b$                          | 10 ... 30 V DC       | <b>Wire-break protection</b>             | yes                              |
| <b>Ripple</b> $U_{pp}$                                  | $\leq 10\%$ of $U_b$ | <b>Short-circuit protection (pulsed)</b> | yes                              |
| <b>Voltage drop</b> $U_d$<br>(at $I_a$ max.)            | $\leq 1.5$ V         | <b>Reverse polarity protection</b>       | yes                              |
| <b>Power consumption</b><br>(without load)              | $\leq 10$ mA         | <b>Power-up pulse suppression</b>        | yes                              |
| <b>Continuous current</b> $I_a$                         | $\leq 300$ mA        | <b>Enclosure rating</b> to EN 60529      | IP 67                            |
| <b>Time delay before availability</b> $t_v$             | $\leq 15$ ms         | <b>Shock and vibration stress</b>        | 30 g, 11 ms<br>10 to 55 Hz, 1 mm |
| <b>Hysteresis</b> $H$                                   | 1% - 10% of $s_r$    | <b>Ambient temperature</b> $T_a$         | - 25 ... + 75 °C                 |
| <b>Repeatability</b> $R$<br>( $U_b$ and $T_a$ constant) | $\leq 3\%$ of $s_r$  | <b>Housing material</b>                  | Brass, nickel-plated, plastic    |
| <b>Temperature drift</b>                                | $\pm 10\%$ of $s_r$  | <b>Tightening torque</b>                 | 50 Nm                            |
| <b>EMC</b>                                              | to EN 60 947-5-2     | <b>Connection cable</b>                  | PUR-PVC, 3 x 0.5 mm <sup>2</sup> |

## Selection table

| Sensing range $s_n$<br>mm | Installation<br>in metal                                                            | Switching<br>output | Output<br>function                                                                  | Switching<br>frequency $f$<br>in Hz | Connection           | Type           | Order number |
|---------------------------|-------------------------------------------------------------------------------------|---------------------|-------------------------------------------------------------------------------------|-------------------------------------|----------------------|----------------|--------------|
| 10                        |  | PNP                 |  | 500                                 | Cable 2 m            | IM30-10BPS-ZUK | 1017434      |
| 10                        |  | NPN                 |  | 500                                 | Cable 2 m            | IM30-10BNS-ZUK | 1017446      |
| 10                        |  | PNP                 |  | 500                                 | Connector M12 x 1 mm | IM30-10BPS-ZCK | 1017436      |
| 10                        |  | NPN                 |  | 500                                 | Connector M12 x 1 mm | IM30-10BNS-ZCK | 1017448      |
| 15                        |  | PNP                 |  | 500                                 | Cable 2 m            | IM30-15NPS-ZUK | 1017435      |
| 15                        |  | NPN                 |  | 500                                 | Cable 2 m            | IM30-15NNS-ZUK | 1017447      |
| 15                        |  | PNP                 |  | 500                                 | Connector M12 x 1 mm | IM30-15NPS-ZCK | 1017437      |
| 15                        |  | NPN                 |  | 500                                 | Connector M12 x 1 mm | IM30-15NNS-ZCK | 1017449      |