

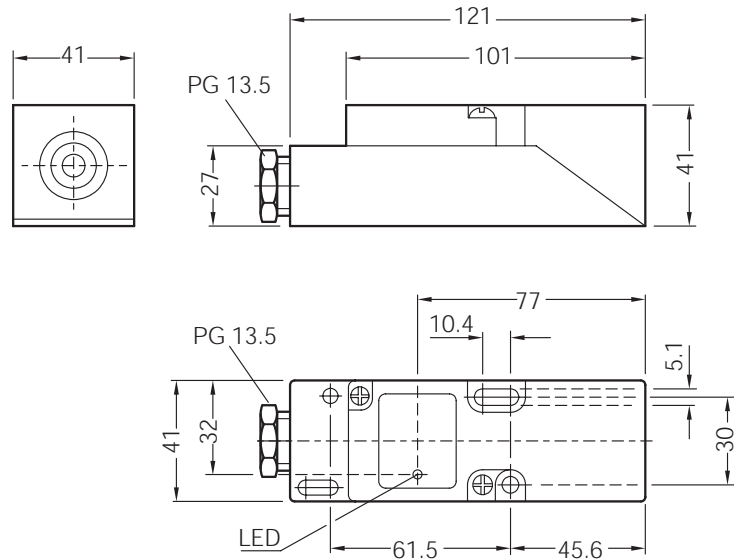


# Inductive proximity sensors

## IQ 40 series, sensing range 15 / 20 mm

### AC / DC 2-wire, plastic housing

Dimensions in mm

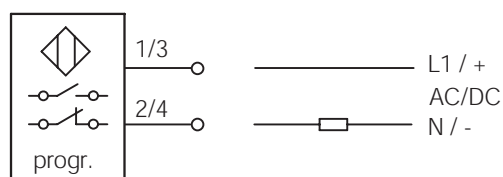


#### Features



- Can be installed flush or non-flush in metal
- Variable switching zone
- Broad operating voltage range in AC and DC
- Programmable switching output: NO or NC
- Plastic housing
- Enclosure rating IP 65
- Terminal connection
- LED status indicator
- 

#### Connection diagram



Programming with wire links  
 Link closed: NO  
 Link open: NC

| Terminal | Assignment |
|----------|------------|
| 1/3      | L1 / +     |
| 2/4      | N / -      |

## Electrical and mechanical data

|                                                       |                                                                                      |                                          |                                  |
|-------------------------------------------------------|--------------------------------------------------------------------------------------|------------------------------------------|----------------------------------|
| <b>Operating voltage</b> $U_b$                        | 20 ... 250 V AC / DC                                                                 | <b>Wire-break protection</b>             | -                                |
| <b>Voltage drop</b> $U_d$<br>(at $I_a$ max.)          | $\leq 6.5$ V AC / $\leq 6$ V DC                                                      | <b>Short-circuit protection (pulsed)</b> | -                                |
| <b>Continuous current</b> $I_a$                       | $\leq 350$ mA AC (... + 50 °C)<br>$\leq 250$ mA AC (... + 80 °C)<br>$\leq 100$ mA DC | <b>Reverse polarity protection</b>       | -                                |
| <b>Peak current</b> $I_k$                             | 2.2 A (20 ms / 0.5 Hz)                                                               | <b>Power-up pulse suppression</b>        | yes                              |
| <b>Min. load current</b>                              | 5 mA                                                                                 | <b>Enclosure rating</b> to EN 60529      | IP 65                            |
| <b>Residual current</b>                               | $\leq 2.5$ mA (250 V AC)<br>$\leq 1.3$ mA (110 V AC)<br>$\leq 0.8$ mA (24 V DC)      | <b>Protection class</b>                  | □                                |
| <b>Time delay before availability</b> $t_v$           | approx. 8 ms                                                                         | <b>Shock and vibration stress</b>        | 30 g, 11 ms<br>10 to 55 Hz, 1 mm |
| <b>Hysteresis</b> H                                   | 1% - 15% of $s_r$                                                                    | <b>Ambient temperature</b> $T_a$         | - 25 ... + 80 °C                 |
| <b>Repeatability</b> R<br>( $U_b$ and $T_a$ constant) | $\leq 10\%$ of $s_r$                                                                 | <b>Housing material</b>                  | Plastic                          |
| <b>Temperature drift</b>                              | $\pm 10\%$ of $s_r$                                                                  |                                          |                                  |
| <b>EMC</b>                                            | to EN 60 947-5-2                                                                     |                                          |                                  |

## Selection table

| Sensing range $s_n$<br>mm | Installation<br>in metal                                                            | Output<br>function                                                                         | Switching frequency $f$<br>in Hz | Connection                            | Type           | Order number |
|---------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------|---------------------------------------|----------------|--------------|
| 15                        |  |  progr. | 20 (AC) / 55 (DC)                | Terminal up to<br>2.5 mm <sup>2</sup> | IQ40-15BUP-KK0 | 7902136      |
| 20                        |  |  progr. | 20 (AC) / 55 (DC)                | Terminal up to<br>2.5 mm <sup>2</sup> | IQ40-20NUP-KK0 | 7902137      |