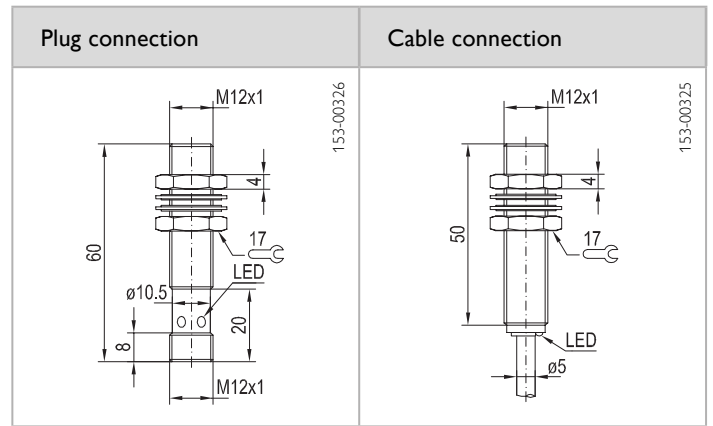


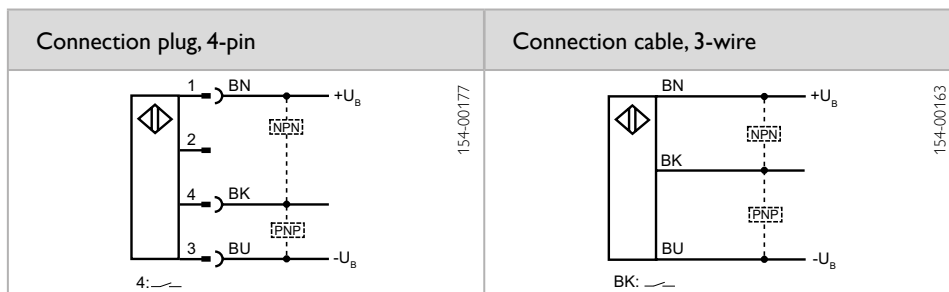
Inductive sensor with expanded switching distance



| Sensor data | | Functions | |
|------------------------------------|---|---------------------------------|----------------------------|
| Switching distance | 6 mm | Indicator LED, yellow | Switching output indicator |
| Repeatability | 0.3 mm ¹ | | |
| Hysteresis | ≤ 10 % ² | | |
| Reduction factor, Al | 0.30 | | |
| Reduction factor, Cu | 0.25 | | |
| Reduction factor, V2A | 0.70 | | |
| Reduction factor, steel FE 360 | 1.00 | | |
| Reduction factor, brass | 0.40 | | |
| Electrical data | | Mechanical data | |
| Operating voltage, +U _B | 10 ... 30V DC ³ | Dimensions | See Selection Table |
| No-load current, I ₀ | ≤ 10 mA | Enclosure rating | IP 67 ⁴ |
| Output current, I _e | ≤ 200 mA | Mounting | Quasi-flush |
| Voltage drop, U _D | ≤ 2V at 200 mA | Material, housing | Brass, chrome-plated |
| Protective circuits | Reverse-polarity protection, U _B / short-circuit protection (Q) / induction protection | Material, front surface | PBTP (PPS) |
| Switching output, Q | PNP / NPN (see Selection Table) | Type of connection | See Selection Table |
| Output function | N.O. | Ambient temperature: operation | -25 ... +70 °C |
| Switching frequency, f (ti/tp 1:1) | ≤ 800 Hz | Vibration and impact resistance | IEC 60947-5-2 / 7.4 |

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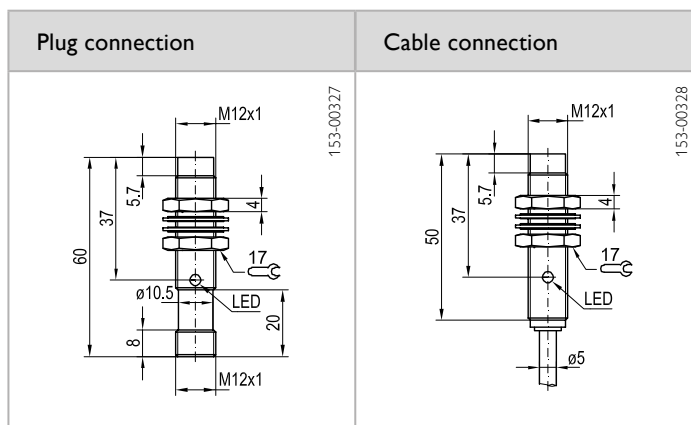
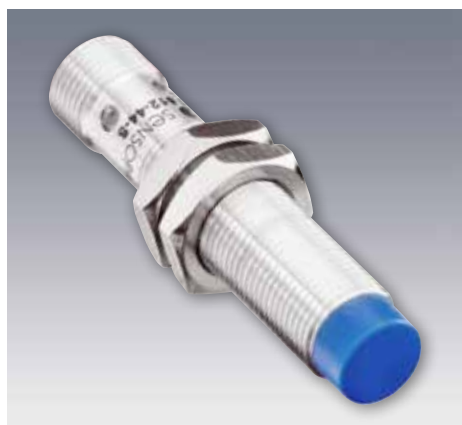
¹ U_B = 20 ... 30V DC, T_A = 23 °C ± 5 °C ² Refers to switching distance ³ Max. 20 % ripple, within U_B ⁴ With connected IP 67 plug



| Switching distance | Switching output | Dimensions | Type of connection | Part number | Article number |
|--------------------|------------------|-------------|--------------------|-------------|----------------|
| 6 mm | PNP | M12 × 60 mm | Plug, M12x1, 4-pin | IS 512-42 | 996-09969 |
| 6 mm | NPN | M12 × 60 mm | Plug, M12x1, 4-pin | IS 512-41 | 996-09968 |
| 6 mm | PNP | M12 × 50 mm | Cable, 2 m, 3-wire | IS 512-02 | 996-09421 |
| 6 mm | NPN | M12 × 50 mm | Cable, 2 m, 3-wire | IS 512-01 | 996-09420 |

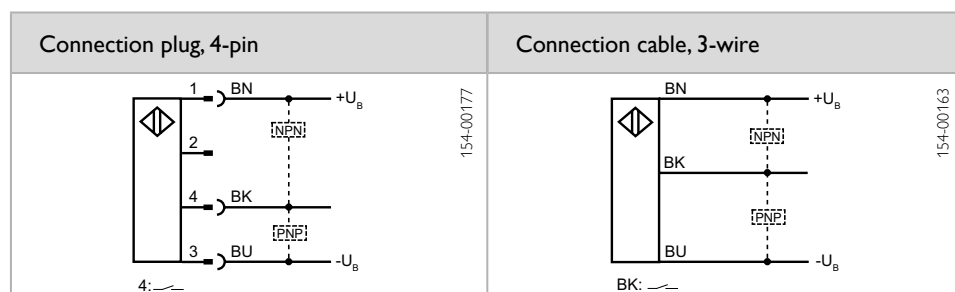
IS 512

Inductive sensor with expanded switching distance



| Sensor data | | Functions | |
|--------------------------------------|--|---------------------------------|----------------------------|
| Switching distance | 10 mm | Indicator LED, yellow | Switching output indicator |
| Repeatability | $\leq 0.3 \text{ mm}^1$ | | |
| Hysteresis | $\leq 10 \%^2$ | | |
| Reduction factor; Al | 0.49 | | |
| Reduction factor; Cu | 0.45 | | |
| Reduction factor; V2A | 0.77 | | |
| Reduction factor; steel FE 360 | 1.00 | | |
| Reduction factor; brass | 0.56 | | |
| Electrical data | | Mechanical data | |
| Operating voltage, $+U_B$ | 10 ... 30V DC ³ | Dimensions | See Selection Table |
| No-load current, I_0 | $\leq 10 \text{ mA}$ | Enclosure rating | IP 67 ⁴ |
| Output current, I_e | $\leq 200 \text{ mA}$ | Mounting | Non-flush |
| Voltage drop, U_D | $\leq 2 \text{ V}$ at 200 mA | Material, housing | Brass, chrome-plated |
| Protective circuits | Reverse-polarity protection, U_B / short-circuit protection (Q) / induction protection | Material, front surface | PBTP (PPS) |
| Switching output, Q | PNP / NPN (see Selection Table) | Type of connection | See Selection Table |
| Output function | N.O. | Ambient temperature: operation | -25 ... +70 °C |
| Switching frequency, f (ti/tp 1:1) | $\leq 400 \text{ Hz}$ | Vibration and impact resistance | IEC 60947-5-2 / 7.4 |

¹ $U_B = 20 \dots 30 \text{ V DC}$, $T_A = 23 \text{ °C} \pm 5 \text{ °C}$ ² Refers to switching distance ³ Max. 20 % ripple, within U_B ⁴ With connected IP 67 plug



| Switching distance | Switching output | Dimensions | Type of connection | Part number | Article number |
|--------------------|------------------|-------------|--------------------|-------------|----------------|
| 10 mm | PNP | M12 x 60 mm | Plug, M12x1, 4-pin | IS 512-44-S | 996-51449 |
| 10 mm | NPN | M12 x 60 mm | Plug, M12x1, 4-pin | IS 512-43 | 996-09970 |
| 10 mm | PNP | M12 x 50 mm | Cable, 2 m, 3-wire | IS 512-04-S | 996-51458 |
| 10 mm | NPN | M12 x 50 mm | Cable, 2 m, 3-wire | IS 512-03-S | 996-51472 |