

Basic features

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|---------------------|-----------------------------------|
| Approval/Conformity | CE UKCA cULus WEEE |
| Base type deviation | Shielded pigtail contacts housing |
| Basic standard | IEC 60947-5-2 IEC 60947-5-7 |

Display/Operation

| | |
|--------------------|----------------------|
| Function indicator | Adjustment indicator |
| Power indicator | no |

Electrical connection

| | |
|-------------------------------------|-----------------------------------|
| Bending radius min., fixed cable | 5 x D |
| Bending radius min., flexible cable | 10 x D |
| Cable diameter D | 4.5...4.7 mm |
| Cable length L | 1.5 m |
| Connection | M12x1-Male, 3-pin, A-coded |
| Connection type | Cable with connector, 1.50 m, PUR |
| Number of conductors | 3 |
| Polarity reversal protected | yes |
| Protection against device mix-ups | yes |
| Short-circuit protection | yes |

Electrical data

| | |
|-------------------------------------|-------------|
| Limit frequency -3 dB | 500 Hz |
| Load resistance R_L min. | 2000 Ohm |
| No-load current I_o max. at U_e | 10 mA |
| Operating voltage U_b | 15...30 VDC |
| Rated insulation voltage U_i | 75 V DC |
| Rated operating voltage U_e DC | 24 V |
| Ripple max. (% of U_e) | 15 % |
| Slope U | 2.60 V/mm |

Environmental conditions

| | |
|-------------------------|---------------------------------|
| Ambient temperature | -10...70 °C |
| Contamination scale | 3 |
| EN 60068-2-27, Shock | Half-sinus, 30 g_n , 11 ms |
| EN 60068-2-6, Vibration | 55 Hz, amplitude 1 mm, 3x30 min |
| IP rating | IP67 |

Functional safety

| | |
|--------------|-------|
| MTTF (40 °C) | 640 a |
|--------------|-------|

Interface

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|---------------------------|--------------------------|
| Analog output | Analog, voltage 0...10 V |
| Output characteristic | falling on approach |
| Output voltage at SI max. | 10 V |
| Output voltage at SI min. | 0 V |
| Output voltage at Se | 5 V |

Material

| | |
|--------------------------|----------------------|
| Cable shield | yes |
| Housing material | Brass, nickel-plated |
| Material jacket | PUR |
| Material sensing surface | PBT |

Range/Distance

| | |
|---------------------------------------|------------|
| Linearity range SI | 1...4.8 mm |
| Measuring range | 1...4.8 mm |
| Non-linearity max. | ±120 µm |
| Repeat accuracy per BWN | ±8 µm |
| Temperature drift max. from end value | ±5.0 % |

Mechanical data

| | |
|-------------------|--------------------|
| Dimension | Ø 18 x 36 mm |
| Installation | for flush mounting |
| Mounting length | 30.0 mm |
| Size | M18x1 |
| Tightening torque | 25 Nm |

Remarks

When used in Balluff clamping holders, Ua may be reduced by max. 10%

Values referenced to axial approach of St 37 target. For other materials correction factors are applied.

Scattering (e.g. due to manufacturing tolerances) is described by the tolerance T at Se. This can be approximated using the formula: $T = (sl_{max} + sl_{min}) / 20 = \pm xx \text{ mm}$.

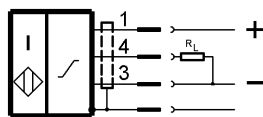
For more information about MTTF and B10d see MTTF / B10d Certificate

Indication of the MTTF- / B10d value does not represent a binding composition and/or life expectancy assurance; these are simply experiential values with no warranty implications. These declared values also do not extend the expiration period for defect claims or affect it in any way.

Connector Drawings



Wiring Diagrams



Technical Drawings

