

Basic features

| | |
|---------------------|--------------------------------|
| Approval/Conformity | CE UKCA cULus WEEE |
| Basic standard | IEC 60947-5-2 IEC 60947-5-7 |

Display/Operation

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

Electrical connection

| | |
|-----------------------------------|----------------------------|
| Connection | M12x1-Male, 4-pin, A-coded |
| Polarity reversal protected | yes |
| Protection against device mix-ups | yes |
| Short-circuit protection | yes |

Electrical data

| | |
|---|-------------|
| Limit frequency -3 dB | 1000 Hz |
| Load resistance RL min. | 2000 Ohm |
| No-load current I _{o max.} at U _e | 15 mA |
| Operating voltage U _b | 15...30 VDC |
| Protection class | II |
| Rated insulation voltage U _i | 250 V AC |
| Rated operating voltage U _{e DC} | 24 V |
| Ripple max. (% of U _e) | 15 % |
| Slope U | 3.03 V/mm |

Environmental conditions

| | |
|-------------------------|---------------------------------------|
| Ambient temperature | -40...80 °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) | 550 a |
|--------------|-------|

Interface

| | |
|---------------------------|--------------------------|
| 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

| | |
|--------------------------|---------------------------|
| Housing material | Brass, Nickel-free coated |
| Material sensing surface | PBT |

Mechanical data

| | |
|-------------------|--------------------|
| Dimension | Ø 12 x 45 mm |
| Installation | for flush mounting |
| Mounting length | 29.5 mm |
| Size | M12x1 |
| Tightening torque | 10 Nm |

Range/Distance

| | |
|--------------------|--------------|
| Linearity range SI | 0.2...3.5 mm |
| Measuring range | 0.2...3.5 mm |

| | |
|---------------------------------------|--------|
| Non-linearity max. | ±35 µm |
| Repeat accuracy per BWN | ±7 µm |
| Temperature drift max. from end value | ±5.0 % |

Remarks

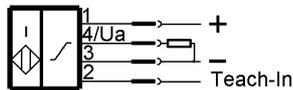
We recommend to connect the teach line to the negative lead (L-) when not in use.
 Values referenced to axial approach of St 37 target. For other materials correction factors are applied.
 The working range can be taught using the Teach line or the BAE PD-AW-009-S04 programmer (order code BAE00MN).
 Scattering (e.g. due to manufacturing tolerances) is described by the tolerance T at Se. This can be approximated using the formula: $T = (sl_{max} + sl_{min}) / 20 = \pm xx \text{ mm}$.
 UL-MARKINGS: - For use in NFPA 79 Applications only - Adapters providing field wiring means are available from the manufacturer. Refer to manufacturers information.
 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.

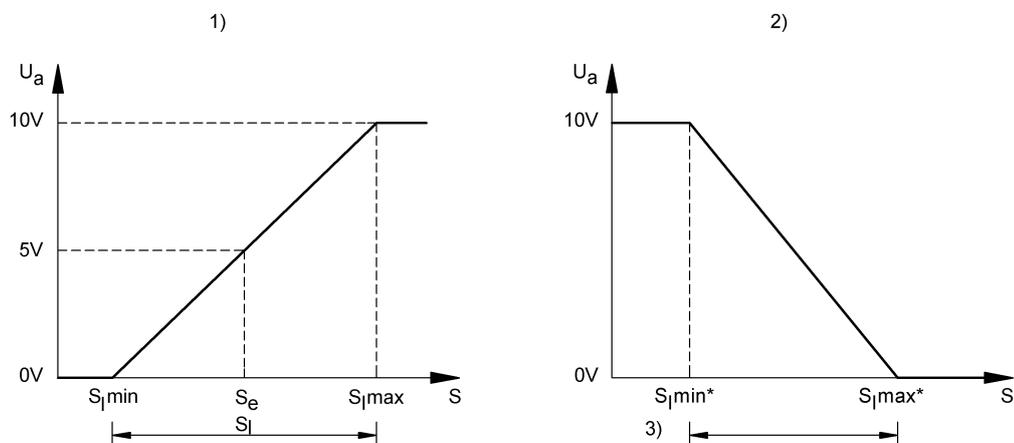
Connector Drawings



Wiring Diagrams (Schematic)



Technical Drawings



- 1) Standard characteristic curve
- 2) Reduced measuring range
- 3) Minimum width $S_I/3$