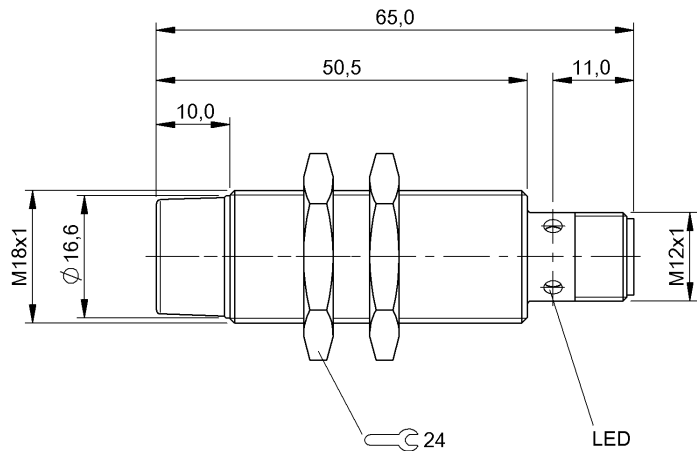




### Basic features

|                     |                                |
|---------------------|--------------------------------|
| Approval/Conformity | CE<br>UKCA<br>cULus<br>WEEE    |
| Basic standard      | IEC 60947-5-2<br>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         | 500 Hz      |
| Load resistance RL min.       | 2000 Ohm    |
| Load resistance RT min.       | 2000 Ohm    |
| No-load current Io max. at Ue | 10 mA       |
| Operating voltage Ub          | 15...30 VDC |
| Protection class              | II          |
| Rated insulation voltage Ui   | 250 V AC    |
| Rated operating voltage Ue DC | 24 V        |
| Ripple max. (% of Ue)         | 15 %        |
| Slope U                       | 0.83 V/mm   |
| Temperature output            | -9 mV/°C    |

### Environmental conditions

|                         |                                 |
|-------------------------|---------------------------------|
| Ambient temperature     | 10...60 °C                      |
| Contamination scale     | 3                               |
| EN 60068-2-27, Shock    | Half-sinus, 30 gn, 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

|                           |                                                                        |
|---------------------------|------------------------------------------------------------------------|
| Analog output             | Analog, voltage 0...10 V<br>Analog, temperature<br>falling on approach |
| 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-plated |
| Material sensing surface | PBT                  |

### Mechanical data

|                   |              |
|-------------------|--------------|
| Dimension         | Ø 18 x 65 mm |
| Installation      | non-flush    |
| Mounting length   | 40.5 mm      |
| Size              | M18x1        |
| Tightening torque | 25 Nm        |

Inductive Sensors  
BAW M18MG-UAC16F-S04G-K  
Order Code: BAW0029



Range/Distance

|                    |           |
|--------------------|-----------|
| Linearity range SI | 4...16 mm |
| Measuring range    | 4...16 mm |

|                                       |         |
|---------------------------------------|---------|
| Non-linearity max.                    | ±360 µm |
| Repeat accuracy per BWN               | ±200 µm |
| Temperature drift max. from end value | ±3.0 %  |

Remarks

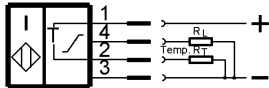
With connector, e.g. BKS-S 20-... total length = switch length +18 mm.  
The specified parameters apply to the temperature range of +10...+60 °C. Function is also guaranteed in the ranges -10...+10 °C and +60...+70 °C.  
Values referenced to axial approach of St 37 target. For other materials correction 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:  $T = (sl_{max} + sl_{min}) / 20 = \pm xx \text{ mm}$ .  
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



Technical Drawings

