

#### 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, 3-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
No-load current $I_0$ max. at $U_e$	18 mA
Operating voltage $U_b$	18...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 %

#### Environmental conditions

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

#### Functional safety

MTTF (40 °C)	640 a
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#### IO-Link

IO-Link Profil IDs	N/A
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#### Interface

Interface	IO-Link 1.1 10 bits
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Output characteristic	falling on approach
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#### Material

Housing material	Brass, nickel-plated
Material sensing surface	PBT

#### Mechanical data

Dimension	Ø 18 x 65 mm
Installation	for flush mounting
Mounting length	50.5 mm
Size	M18x1
Tightening torque	25 Nm

## Inductive Sensors

BAW M18MI-BLC50B-S04G

Order Code: BAW002F

**BALLUFF**

### Range/Distance

Linearity range SI 1...5 mm  
Measuring range 1...5 mm

Non-linearity max.  $\pm 120 \mu\text{m}$   
Repeat accuracy per BWN  $\pm 10 \mu\text{m}$   
Temperature drift max. from end value  $\pm 5.0 \%$

### Remarks

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

With connector, e.g. BKS-S 20... total length = switch length +18 mm.

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

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

UL-MARKINGS: - For use in NFPA 79 Applications only - Adapters providing field wiring means are available from the manufacturer. Refer to manufacturers information.

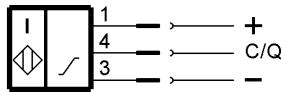
For more information about MTTF and B10d see MTTF / B10d Certificate

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.

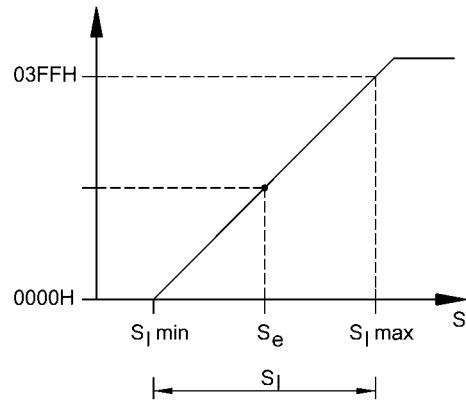
### Connector Drawings



### Wiring Diagrams



### Technical Drawings



### Help Views

Byte 0								Byte 1								Byte 2							
7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0
								Analog value															
								MSB								LSB							