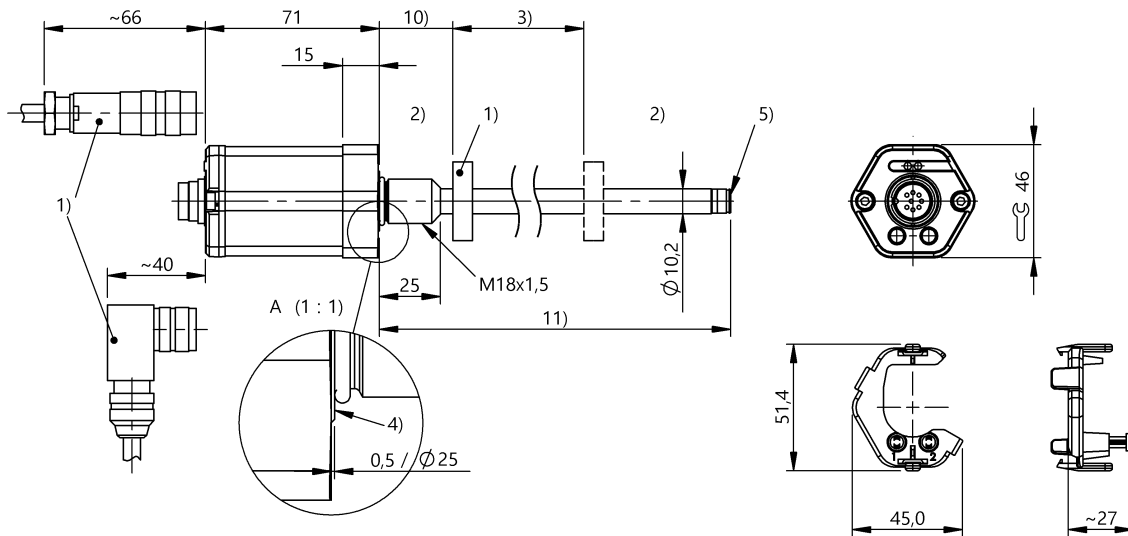


Magnetostrictive Sensors  
**BTL7-A110-M0400-B-S32**  
 Order Code: BTL06WM

**BALLUFF**



1) not included in scope of delivery, 2) Non-usable area, 3) Nominal length = Measuring length, 4) Mounting surface, 5) Internal threads M4x4/6 deep, 10) Null point, 11) Installation length



**Basic features**

<b>Approval/Conformity</b>	CE UKCA cULus GL EAC WEEE
<b>Magnets, number (factory setting)</b>	1
<b>Magnets, number max.</b>	1

**Electrical connection**

<b>Connection</b>	Connector, M16x0.75, 8-pin
<b>Connection version</b>	axial
<b>Polarity reversal protected</b>	Ub up to 36 V
<b>Short-circuit protection</b>	to GND and to 36 V DC

**Electrical data**

<b>Current consumption max. at 24 V DC</b>	150 mA
<b>Error signal Ua falling</b>	-0.5 V
<b>Error signal Ua rising</b>	10.5 V
<b>Galvanic isolation</b>	no
<b>Inrush current</b>	≤ 500 mA/10 ms
<b>Operating voltage Ub</b>	20...28 VDC
<b>Output current max.</b>	5 mA
<b>Output signal adjustable</b>	with calibration aid using programming inputs
<b>Overvoltage protection</b>	Ub up to 36 V
<b>Switch-on delay max.</b>	600 ms
<b>Voltage-proof up to (GND to housing)</b>	500 V AC

**Environmental conditions**

<b>Ambient temperature</b>	-40...85 °C
<b>EN 55016-2-3, Radiation</b>	For industrial and residential use
<b>EN 60068-2-27, Continuous shock</b>	150 g, 2 ms
<b>EN 60068-2-27, Shock</b>	150 g, 6 ms
<b>EN 60068-2-6, Vibration</b>	20 g, 10...2000 Hz
<b>EN 61000-4-2, ESD</b>	Severity Level 3
<b>EN 61000-4-3, RFI</b>	Severity Level 3
<b>EN 61000-4-4, Burst</b>	Severity Level 3
<b>EN 61000-4-5, Surge</b>	Severity Level 2
<b>EN 61000-4-6, High-frequency fields</b>	Severity Level 3
<b>EN 61000-4-8 Magnetic fields</b>	Severity Level 4
<b>IP rating</b>	IP67, with connector
<b>Relative humidity</b>	≤ 90 %, non-condensing
<b>Storage temperature</b>	-40...100 °C
<b>Temperature coefficient typ.</b>	≤ 30 ppm/K at 50% of nominal stroke 500mm

**Functional safety**

<b>MTTF (40 °C)</b>	98 a
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**Interface**

<b>Analog output</b>	Analog, voltage 0...10 V Analog, voltage 10...0 V
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**Material**

Cover material	Aluminium, Die-cast, nickel plated
Housing material	Aluminium, Anodized
Housing material, surface protection	Anodized
Material flange	1.3960 stainless steel
O-ring material	FKM
Plug material	1.4571 stainless steel
Protection tube material	1.4571 stainless steel

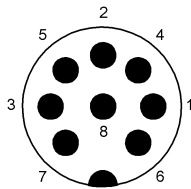
**Mechanical data**

Installation length from contact surface	490 mm
Mounting part	Threaded flange M18x1.5
Null point	30.0 mm
Pressure rating max.	600 bar
Protection tube diameter	10.2 mm
Tightening torque max.	100 Nm

**Range/Distance**

Measuring length	400 mm
Non-linearity max.	±50 µm
Repeat accuracy	± 10 µm
Sampling frequency max.	2000 Hz

**Connector Drawings**



**Wiring Diagrams**

Pin	
1	NC
2	0V
3	10...0 V
4	La
5	0...10 V
6	GND
7	+24 V DC
8	Lb