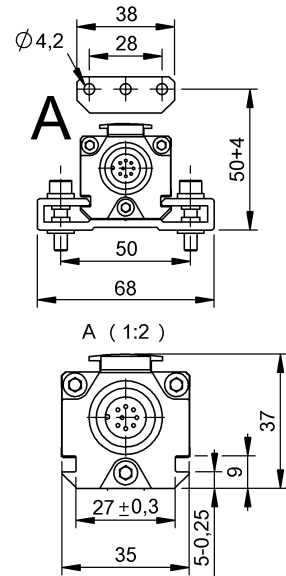
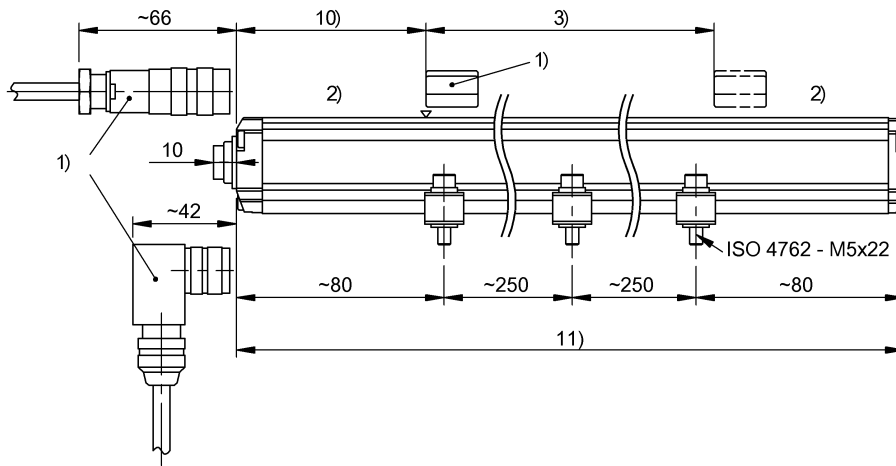


Magnetostrictive Sensors  
**BTL5-S117B-M0100-P-S32**  
 Order Code: BTL03P9

**BALLUFF**



1) not included in scope of delivery, 2) Non-usable area, 3) Nominal length = Measuring length, 10) Null point, 11) Installation length



**Basic features**

<b>Approval/Conformity</b>	CE cULus EAC
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**Electrical connection**

<b>Connection</b>	Connector, M16x0.75, 8-pin
<b>Connection version</b>	axial
<b>Polarity reversal protected</b>	Ub up to 28 V

**Electrical data**

<b>Current consumption max. at 24 V DC</b>	90 mA
<b>Galvanic isolation</b>	yes
<b>Inrush current</b>	≤ 3 A/0.5 ms
<b>Operating voltage Ub</b>	20...28 VDC
<b>Overvoltage protection</b>	Ub up to 28 V
<b>Voltage-proof up to (GND to housing)</b>	500 V DC

**Environmental conditions**

<b>Ambient temperature</b>	-40...85 °C
<b>EN 55016-2-3, Radiation</b>	Industrial areas
<b>EN 60068-2-27, Continuous shock</b>	100 g, 2 ms
<b>EN 60068-2-27, Shock</b>	100 g, 6 ms
<b>EN 60068-2-6, Vibration</b>	12 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>	≤ 35 ppm/K at 50% of nominal stroke 500mm

**Functional safety**

<b>MTTF (40 °C)</b>	91 a
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**Interface**

<b>Bits, number</b>	24 Bit
<b>Count direction</b>	rising
<b>Interface</b>	SSI
<b>Interface coding</b>	Gray

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**Material**

Housing material	Aluminum, Anodized
Housing material, surface protection	Anodized

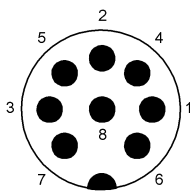
**Mechanical data**

Mounting part	Mounting clamps
Null point	73.0 mm

**Range/Distance**

Non-linearity max.	±30 µm
Repeat accuracy	± 1 LSB
Reproducibility	±1 LSB
Resolution	≤ 2 µm
Sampling frequency max.	1500 Hz

**Connector Drawings**



**Wiring Diagrams**

Pin	
1	+Clk
2	+Data
3	-Clk
4	NC
5	-Data
6	GND
7	+24 V DC
8	NC