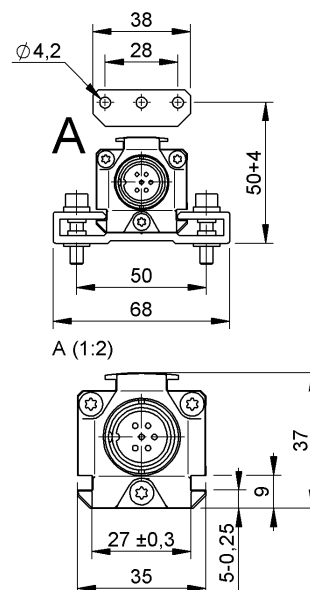
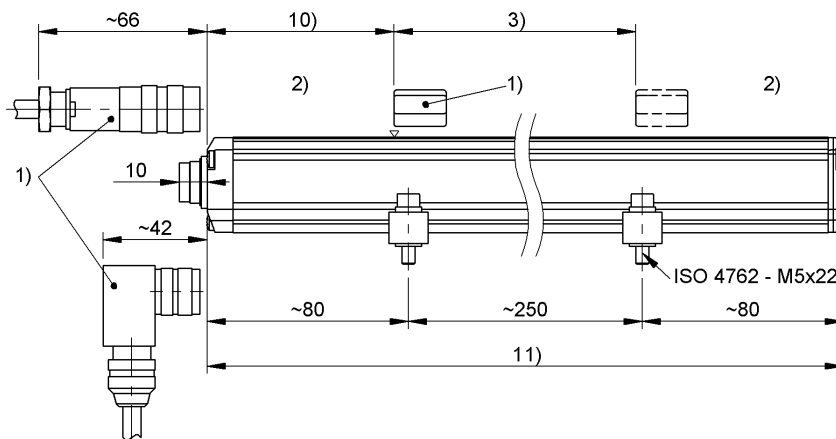


Magnetostrictive Sensors
BTL5-E10-M1800-P-S135
 Order Code: BTL19FN

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

Approval/Conformity	CE cULus EAC WEEE
Magnets, number (factory setting)	1
Magnets, number max.	1

Electrical connection

Connection	Connector, M16x0.75, 6-pin
Connection version	axial
Polarity reversal protected	Ub up to 28 V

Electrical data

Current consumption max. at 24 V DC	150 mA
Error signal Ia rising	≥ 20.4 mA
Error signal Ua falling	≤ 0 V
Error signal Ua rising	≥ 10.2 V
Galvanic isolation	yes
Inrush current	≤ 3 A/0.5 ms
Operating voltage Ub	20...28 VDC
Output signal adjustable	no
Overvoltage protection	Ub up to 28 V
Voltage-proof up to (GND to housing)	500 V DC

Environmental conditions

Ambient temperature	-40...85 °C
EN 55016-2-3, Radiation	Industrial areas
EN 60068-2-27, Continuous shock	100 g, 2 ms
EN 60068-2-27, Shock	100 g, 6 ms
EN 60068-2-6, Vibration	12 g, 10...2000 Hz
EN 61000-4-2, ESD	Severity Level 3
EN 61000-4-3, RFI	Severity Level 3
EN 61000-4-4, Burst	Severity Level 3
EN 61000-4-5, Surge	Severity Level 2
EN 61000-4-6, High-frequency fields	Severity Level 3
EN 61000-4-8 Magnetic fields	Severity Level 4
IP rating	IP67, with connector
Relative humidity	≤ 90 %, non-condensing
Storage temperature	-40...100 °C
Temperature coefficient typ.	≤ 35 ppm/K at 50% of nominal stroke 500mm

Functional safety

MTTF (40 °C)	77 a
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Interface

Analog output	Analog, current 4...20 mA
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Material

Cover material	Aluminium, Die-cast, nickel plated
Housing material	Aluminium, Anodized
Housing material, surface protection	Anodized

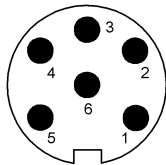
Mechanical data

Mounting part	Mounting clamps
Null point	73.0 mm
Overall Length	1946 mm

Range/Distance

Measuring length	1800 mm
Non-linearity max.	±0.02 % FS
Repeat accuracy	≤ ± 0.2 µA
Repeatability	≤4 µm
Resolution	≤ 0.2 µA
Sampling rate, length-dependent	1 kHz, standard

Connector Drawings



Wiring Diagrams (Schematic)

Pin	
1	4...20 mA
2	GND output
3	NC
4	NC
5	+24 V DC
6	GND