

Magnetostrictive Sensors
BTL5-E50-M0305-J-DEXC-TA12
Order Code: BTL08UP

BALLUFF

Electrical data

Current consumption max. at 24 V DC	150 mA
Error signal I _a rising	3.6 mA
Galvanic isolation	no
Inrush current	≤ 3 A/0.5 ms
Operating voltage U _b	10...30 VDC
Overvoltage protection	U _b up to 28 V
Voltage-proof up to (GND to housing)	500 V DC

Environmental conditions

Ambient temperature	-40...80 °C
EN 55016-2-3, Radiation	For industrial and residential use
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	IP68
Relative humidity	≤ 90 %, non-condensing
Storage temperature	-50...100 °C
Temperature coefficient typ.	≤ 35 ppm/K at 50% of nominal stroke 500mm

Interface

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

Housing material	Stainless steel (1.4404)
Material flange	Stainless steel (1.4404)
O-ring material	FKM
Protection tube material	Stainless steel (1.4571)

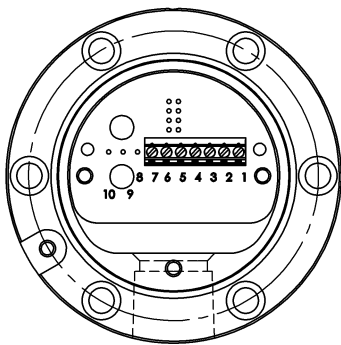
Mechanical data

Housing diameter	88.00 mm
Installation length from contact surface	433 mm
Mounting part	Flange Ø18h6 plus holes
Null point	50.8 mm
Pressure rating max.	600 bar
Protection tube diameter	10.2 mm
Tightening torque	3.5 Nm

Range/Distance

Non-linearity max.	±100 µm
Repeat accuracy	≤ ± 0.66 µA
Repeatability	≤5 µm
Resolution	≤ 0.66 µA
Sampling rate, length-dependent	1 kHz, standard

Connector Drawings



Wiring Diagrams (Schematic)

PIN	
1	4...20mA
2	GND Output
3	NC
4	GND
5	10...30 V DC
6	NC
7	NC