



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

Bending radius min., fixed cable	5 x D
Bending radius min., flexible cable	15 x D
Cable diameter D	6...6.7 mm
Cable length L	5 m, drag chain compatible
Connection	Cable, 5.00 m, PUR
Connection version	axial
Polarity reversal protected	Ub up to 28 V

Electrical data

Current consumption max. at 24 V DC	150 mA
Error signal Ua falling	≤ -1 V
Error signal Ua rising	≥ 11 V
Galvanic isolation	yes
Inrush current	≤ 3 A/0.5 ms
Operating voltage Ub	20...28 VDC
Output current max.	5 mA
Output signal adjustable	no
Overvoltage protection	Ub up to 28 V
Ripple Ua max.	5 mV
Voltage-proof up to (GND to housing)	500 V DC

Magnetostrictive Sensors
BTL5-A11-M0400-P-KA05
Order Code: BTL02MN

BALLUFF

Environmental conditions

Ambient temperature	-40...85 °C
Cable temperature, fixed routing	-40...90 °C
Cable temperature, flexible routing	-5...90 °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
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)	93 a
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Interface

Analog output	Analog, voltage 0...10 V Analog, voltage 10...0 V
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Material

Cable flame-resistant	IEC 60332-1
Cable jacket, material	PUR
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	546 mm

Range/Distance

Measuring length	400 mm
Non-linearity max.	±100 µm
Repeat accuracy	≤ 0.1 mV
Repeatability	≤4 µm
Resolution	≤ 0.1 mV
Sampling rate, length-dependent	1 kHz, standard

Wiring Diagrams (Schematic)

colour	
YE	NC
GY	GND output
PK	10...0 V
GN	0...10 V
BU	GND
BN	+24 V DC
WH	NC