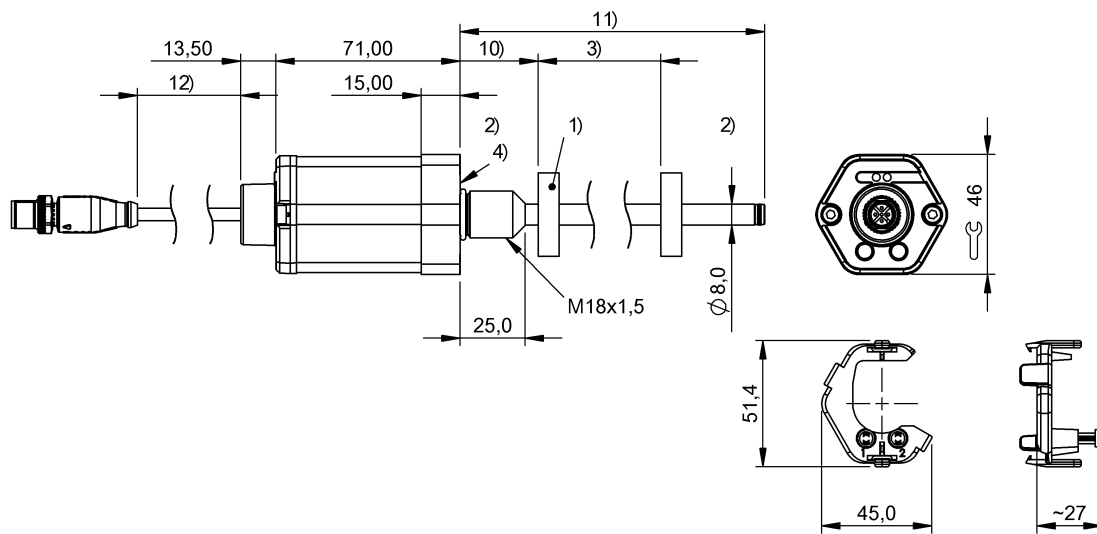


Magnetostrictive Sensors
BTL7-A100-M0300-A8-KA00,2-ZA0Z
 Order Code: BTL110K

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1) not included in scope of delivery, 2) Non-usable area, 3) Nominal length = Measuring length, 4) Mounting surface, 10) Null point, 11) Installation length, 12) Cable length



Basic features

Approval/Conformity	CE UKCA cULus WEEE
Base type	BTL7-A...-M....-A-S...
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	6.4...7 mm
Cable length L	0.2 m, drag chain compatible
Connection	Cable with connector, M12x1, 5-pin, 0.20 m, PUR
Connection version	axial
Polarity reversal protected	Ub up to 36 V
Short-circuit protection	to GND and to 36 V DC

Electrical data

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

Magnetostrictive Sensors
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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	For industrial and residential use
EN 60068-2-27, Continuous shock	150 g, 2 ms
EN 60068-2-27, Shock	150 g, 6 ms
EN 60068-2-6, Vibration	20 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, with connector
IP rating IEC 60529 (connector)	IP67 with connector
Relative humidity	≤ 90 %, non-condensing
Storage temperature	-40...100 °C
Temperature coefficient typ.	≤ 30 ppm/K at 50% of nominal stroke 500mm

Functional safety

MTTF (40 °C)	98 a
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Interface

Analog output	Analog, voltage 0...10 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
Material flange	1.3960 stainless steel
O-ring material	FKM
Plug material	1.4571 stainless steel
Protection tube material	1.4571 stainless steel

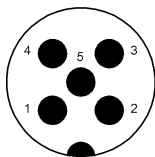
Mechanical data

Installation length from contact surface	390 mm
Mounting part	Threaded flange M18x1.5
Null point	30.0 mm
Pressure rating max.	250 bar
Protection tube diameter	8.0 mm
Tightening torque max.	100 Nm

Range/Distance

Measuring length	300 mm
Non-linearity max.	±50 µm
Repeat accuracy	± 10 µm
Sampling frequency max.	2000 Hz

Connector Drawings



Wiring Diagrams

Pin	
1	+24 V DC
2	0 - 10 V
3	GND
4	0 V
5	NC

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