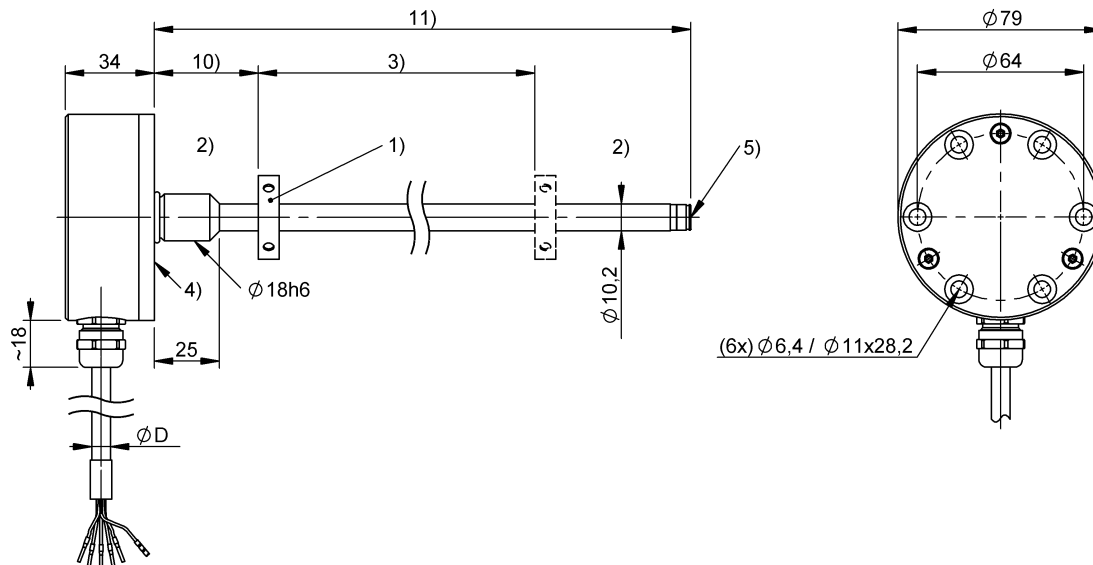




1) not included in scope of delivery, 2) Non-usable area, 3) Nominal length = Measuring length, 4) Mounting surface, 5) Internal threads M4x4/6 deep, 10) Null point, 11) Installation length



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	15 m, drag chain compatible
Connection	Cable, 15.00 m, PUR
Connection version	radial
Polarity reversal protected	Ub up to 28 V

Electrical data

Current consumption max. at 24 V DC	90 mA
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
Synchronous mode	yes
Voltage-proof up to (GND to housing)	500 V DC

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	IP68
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)	63 a
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Interface

Bits, number	25 Bit
Count direction	rising
Interface	SSI
Interface coding	Gray

Magnetostrictive Sensors
BTL5-S171B-M0110-K-K15
Order Code: BTL1ZWR

BALLUFF

Material

Cable flame-resistant	IEC 60332-1
Cable jacket, material	PUR
Housing material	1.4305 stainless steel
Material flange	1.4404 stainless steel
	1.4429 stainless steel
	1.4435 stainless steel
	1.4571 stainless steel
O-ring material	FKM
Protection tube material	1.4571 stainless steel

Mechanical data

Housing diameter	79 mm
Installation length from contact surface	210 mm
Mounting part	Flange Ø18h6 plus holes
Null point	40.0 mm
Pressure rating max.	600 bar
Protection tube diameter	10.2 mm
Tightening torque	3.5 Nm

Range/Distance

Measuring length	110 mm
Non-linearity max.	±30 µm
Repeat accuracy	± 1 LSB
Repeatability	±1 LSB
Resolution	≤ 1 µm
Sampling rate max.	3634 Hz

Wiring Diagrams (Schematic)

colour	
YE	+Clk
GY	+Data
PK	-Clk
GN	-Data
BU	GND
BN	+24 V DC
WH	NC