



**Basic features**

**Approval/Conformity**

CE  
 CSA  
 IECEx  
 WEEE  
 UKCA  
 CCC Ex

**Ex marking**

ATEX: II 1/2GD  
 Ex db IIC T6 Ga/Gb  
 Ex ta IIIC T85°C Da IP68  
 Tamb -50°C to +70°C

II 1/2GD

Ex db IIC T5 Ga/Gb  
 Ex ta IIIC T100°C Da IP68  
 Tamb -50°C to +80°C  
 IECEx: Ex db IIC T6 Ga/Gb  
 Ex ta IIIC T85°C Da IP68  
 Tamb -50°C to +70°C

Ex db IIC T5 Ga/Gb  
 Ex ta IIIC T100°C Da IP68  
 Tamb -50°C to +80°C  
 NEC: Class I, Division 1, Groups  
 ABCD

Magnetostrictive Sensors  
**BTL7-E570-M0361-J-DEXC-SA418-TA12**  
Order Code: **BTL2HCU**

**BALLUFF**

Class II, Division 1, Groups EFG  
Class III  
Enclosure Type 4X/6P  
Class I, Zone 1, AEx d IIC T\* Ga/  
Gb  
Ex d IIC T\* Gb  
IP68-50°C to +65°C (T6) or -50°C  
to +80°C (T5)  
PESO: Ex d IIC T6 Ga/Gb  
ATEX: II 1/2GD  
Ex db IIC T6 Ga/Gb  
Ex ta IIIC T85°C Da IP68  
Tamb -50°C to +70°C

II 1/2GD  
Ex db IIC T5 Ga/Gb  
Ex ta IIIC T100°C Da IP68  
Tamb -50°C to +80°C  
IECEx: Ex db IIC T6 Ga/Gb  
Ex ta IIIC T85°C Da IP68  
Tamb -50°C to +70°C

Ex db IIC T5 Ga/Gb  
Ex ta IIIC T100°C Da IP68  
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to +80°C (T5)  
PESO: Ex d IIC T6 Ga/Gb

Magnets, number (factory setting) 1

### Electrical connection

Connection	Clamping terminal, 8-pin
Connection version	radial
Polarity reversal protected	Ub up to 36 V

### Electrical data

Galvanic isolation	no
Inrush current	≤ 500 mA/10 ms
Operating voltage Ub	10...30 VDC
Overvoltage protection	Ub up to 36 V
Voltage-proof up to (GND to housing)	1000 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...85 °C
Temperature coefficient typ.	≤ 30 ppm/K at 50% of nominal stroke 500mm

### Functional safety

MTTF (40 °C)	58 a
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### Interface

Analog output	Analog, current
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### Material

Housing material	1.4404 stainless steel
Material flange	1.4404 stainless steel
O-ring material	FKM
Protection tube material	1.4571 stainless steel

### Mechanical data

Housing diameter	88 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

Repeat accuracy	± 5 µm
Reproducibility	≤5 µm
Resolution	≤ 0.66 µA