



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-M0406-J-DEXC-SA418-TA12
Order Code: **BTL2E2A**

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

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

Interface

Analog output Analog, current

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 μ m
Reproducibility ≤ 5 μ m
Resolution ≤ 0.66 μ A