

1) Display and control panel



### Basic features

Approval/Conformity	CE EAC WEEE
Principle of operation	Band radiation sensor
Series	M30E0

### Electrical connection

Connection	Connector, M12x1-Male, 4-pin
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

### Electrical data

Hysteresis H max.	1 °C
Load capacitance max. at Ue	70 nF
Load resistance max., analog output	500 Ohm
Operating voltage U <sub>b</sub>	10...30 VDC
Protection class	II
Rated insulation voltage U <sub>i</sub>	250 V AC
Rated operating current I <sub>e</sub>	100 mA
Rated operating voltage U <sub>e</sub> DC	24 V
Ready delay t <sub>v</sub> max.	3.5 s
Residual current I <sub>r</sub> max.	10 µA
Ripple max. (% of U <sub>e</sub> )	15 %
Switching frequency	100 Hz

Temperature Sensors  
**BTS M30E0-PSB-H0001-S04G**  
**Order Code: BTS0003**

**BALLUFF**

**Environmental conditions**

<b>Ambient temperature</b>	-5...65 °C
<b>EN 60068-2-27, Shock</b>	Half-sinus, 30 gn, 11 ms, 3x6 Half-sinus, 100 gn, 2 ms, 3x8000
<b>EN 60068-2-6, Vibration</b>	10...55 Hz, amplitude 1 mm, 3x30 min 10...2000 Hz, amplitude 1 mm, 30 gn, 3x5 h
<b>Protection degree</b>	IP65, IP67
<b>Relative humidity</b>	95 %, non-condensing
<b>Storage temperature</b>	-25...70 °C

**Functional safety**

<b>MTTF (40 °C)</b>	89 a
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**Material**

<b>Housing material</b>	Stainless steel, Stainless steel (1.4404) Aluminum, black anodized, Aluminum (3.3206)
<b>Material sensing surface</b>	Borosilicate crown glass (N-BK7), coated

**Mechanical data**

<b>Dimension</b>	Ø 30 x 190 mm
<b>Mounting</b>	Nut M30x1.5
<b>Tightening torque max.</b>	80 Nm
<b>Weight</b>	300 g

**Output/Interface**

<b>Analog output</b>	Analog, current 4...20 mA
<b>Switching output</b>	PNP normally open/normally closed (NO/NC)

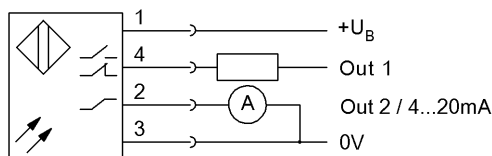
**Range/Distance**

<b>Measuring range</b>	250...1250 °C
<b>Reproducibility</b>	±1 °C
<b>Temperature drift max.</b>	10 %

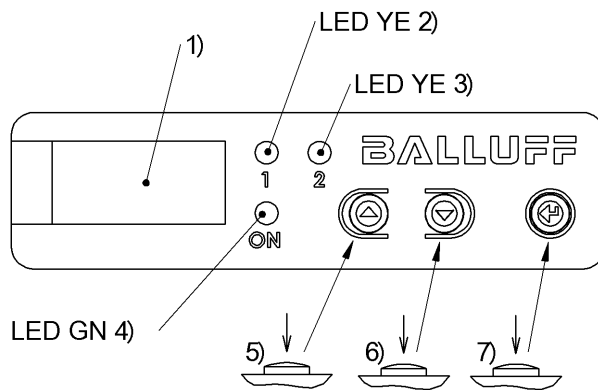
**Connector Drawings**



**Wiring Diagrams**



**Help Views**



- 1) Display
- 2) Output 1 active

- 3) Output 2 active

- 4) Operating voltage
- 5) Scroll / increase value
- 6) Scroll / Reduce value
- 7) Menu, confirm selection