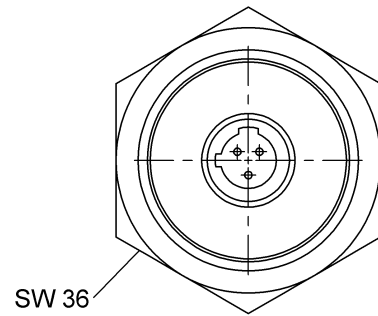
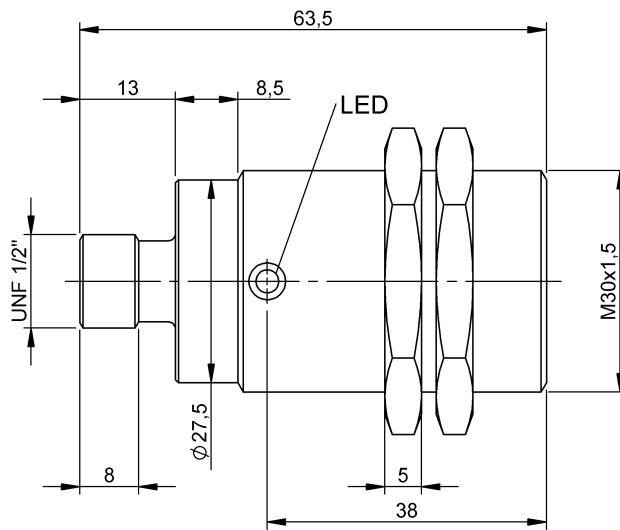


Inductive Sensors  
**BES M30MF2-UST10B-S21G**  
 Order Code: BES05ZR

**BALLUFF**



**Basic features**

Approval/Conformity	CE cULus UKCA WEEE CCC
Basic standard	IEC 60947-5-2
Scope of delivery	Nut M30x1.5 (2x)

**Display/Operation**

Diagnostic function	no
Function indicator	yes
Power indicator	no

**Electrical connection**

Connection	1/2"-20 UNF-2A-Male, 3-pin
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

**Electrical data**

Current consumption min., undamped	1 mA
Min. operating current $I_m$	5 mA
Operating voltage $U_b$	10...300 VDC/20...265 VAC
Rated insulation voltage $U_i$	250 V AC
Rated operating current $I_e$	130 mA
Rated operating voltage $U_e$ AC	110 V
Rated short circuit current	100 A
Ready delay $t_v$ max.	70 ms
Residual current $I_r$ max.	1700 $\mu$ A
Utilization category	DC -13 AC-140
Voltage drop static max.	6 V

**Environmental conditions**

Ambient temperature	-25...70 °C
Contamination scale	3
EN 60068-2-27, Shock	Half-sinus, 30 $g_n$ , 11 ms
EN 60068-2-6, Vibration	55 Hz, amplitude 1 mm, 1x5 min
IP rating	IP67

**Functional safety**

MTTF (40 °C)	476 a
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**Interface**

Switching output	Non-polarized normally open (NO)
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**Material**

Housing material	Brass, Chrome-plated
Material sensing surface	PBTP

**Mechanical data**

Dimension	Ø 30 x 63.5 mm
Installation	for flush mounting
Size	M30x1.5
Tightening torque	70 Nm

**Range/Distance**

Hysteresis H max. (% of Sr)	20 %
Rated operating distance S <sub>n</sub>	10 mm
Real switching distance s <sub>r</sub>	10 mm
Repeat accuracy max. (% of Sr)	5.0 %
Temperature drift max. (% of Sr)	10 %
Tolerance S <sub>r</sub>	±10 %

**Remarks**

Rated operating current I<sub>e</sub> ≤ 200 mA AC/DC (≤ 50°C)

For more information about MTTF and B10d see MTTF / B10d Certificate

Indication of the MTTF- / B10d value does not represent a binding composition and/or life expectancy assurance; these are simply experiential values with no warranty implications. These declared values also do not extend the expiration period for defect claims or affect it in any way.

**Connector Drawings**



**Wiring Diagrams**

