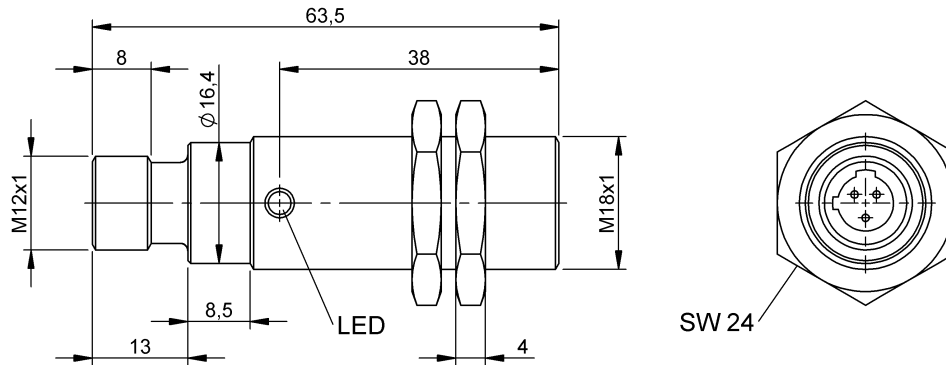


Inductive Sensors
BES M18MF2-UST50B-S21G
 Order Code: BES05ZN

BALLUFF



Basic features

| | |
|---------------------|---|
| Approval/Conformity | CE cULus UKCA WEEE CCC |
| Basic standard | IEC 60947-5-2 |
| Scope of delivery | 2x nut M18x1 Toothed washer D19 (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 | 2 mA |
| Operating voltage U_b | 10...300 VDC/20...265 VAC |
| Rated operating current I_e | 130 mA |
| Rated operating voltage U_e AC | 110 V |
| Ready delay t_v max. | 70 ms |
| 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 |
|--------------|-------|

Interface

| | |
|------------------|----------------------------------|
| Switching output | Non-polarized normally open (NO) |
|------------------|----------------------------------|

Material

| | |
|--------------------------|----------------------|
| Housing material | Brass, Chrome-plated |
| Material sensing surface | PBTP |

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Mechanical data

| | |
|-------------------|--------------------|
| Dimension | Ø 18 x 63.5 mm |
| Installation | for flush mounting |
| Size | M18x1 |
| Tightening torque | 25 Nm |

Range/Distance

| | |
|---|-------|
| Hysteresis H max. (% of Sr) | 20 % |
| Rated operating distance S _n | 5 mm |
| Real switching distance sr | 5 mm |
| Repeat accuracy max. (% of Sr) | 5.0 % |
| Temperature drift max. (% of Sr) | 10 % |
| Tolerance Sr | ±10 % |

Remarks

Rated operating current I_e ≤ 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

