



1) Sensing surface, 2) Housing, 3) Cover, 4) Potentiometer, 5) LED Power, 6) LED function indicator



Basic features

| | |
|----------------------------|--------------------------------------|
| Additional features | weld-immune (magnetic field 100kA/m) |
| Approval/Conformity | CE cULus EAC WEEE |
| Basic standard | IEC 60947-5-2 |
| Scope of delivery | Nut (2x) |
| Sensitivity | Switching distance adjustable |
| Series | M18 |
| Trademark | Global |

Electrical data

| | |
|--|-------------|
| No-load current I_0 max. at U_e | 18 mA |
| Operating voltage U_b | 10...30 VDC |
| Rated insulation voltage U_i | 75 V DC |
| Rated operating current I_e | 100 mA |
| Rated operating voltage U_e DC | 24 V |
| Ready delay t_v max. | 300 ms |
| Ripple max. (% of U_e) | 10 % |
| Switching frequency | 100 Hz |
| Utilization category | DC -13 |
| Voltage drop static max. | 1.5 V |

Display/Operation

| | |
|---------------------------|-----|
| Function indicator | yes |
| Power indicator | yes |

Environmental conditions

| | |
|----------------------------|-------------|
| Ambient temperature | -25...85 °C |
| Contamination scale | 1 |
| IP rating | IP67 |

Electrical connection

| | |
|--|----------------------------|
| Connection | M12x1-Male, 3-pin, A-coded |
| Polarity reversal protected | yes |
| Protection against device mix-ups | no |
| Short-circuit protection | yes |

Functional safety

| | |
|---------------------|-------|
| MTTF (40 °C) | 343 a |
|---------------------|-------|

Interface

| | |
|-------------------------|------------------------|
| Switching output | PNP normally open (NO) |
|-------------------------|------------------------|

Material

| | |
|---------------------------------|------------------------|
| Cover material | PBT PA |
| Housing material | 1.4305 stainless steel |
| Material sensing surface | PBT |

Capacitive Sensors
BCS M18B4I3-PSC80D-S04K
Order Code: BCS00MF

BALLUFF

Mechanical data

| | |
|-------------------|--------------------|
| Dimension | Ø 18 x 88.5 mm |
| Installation | for flush mounting |
| Size | M18x1 |
| Thread (A) | M18x1 |
| Tightening torque | 30 Nm |

Range/Distance

| | |
|---|-------------------|
| Hysteresis H max. (% of Sr) | 15.0 % |
| Measuring range | 1...8 mm |
| Rated operating distance S _n | 8 mm |
| Repeat accuracy max. (% of Sr) | 2.0 % |
| Temperature drift max. (% of Sr) | 20 % [-5...55 °C] |

Remarks

The potentiometer does not have a fixed stop, but can be turned endlessly without destroying anything.
If no change in the switching signal is detected, the potentiometer should be turned forwards or backwards until a signal change occurs at the output.
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

