



1) Sensing surface, 2) Housing, 3) Cover, 4) Potentiometer, 5) Signal LED



### Basic features

Approval/Conformity	CE cULus WEEE
Basic standard	IEC 60947-5-7
Scope of delivery	Nut (2x) Screwdriver Short guide
Series	M18

### Display/Operation

Function indicator	yes
Power indicator	yes

### Electrical connection

Cable length L	2 m
Conductor cross-section	0.25 mm <sup>2</sup>
Number of conductors	3
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

### Electrical data

No-load current I <sub>o max.</sub> at U <sub>e</sub>	17 mA
Operating voltage U <sub>b</sub>	12...35 VDC
Rated insulation voltage U <sub>i</sub>	75 V DC
Rated operating voltage U <sub>e DC</sub>	24 V
Switching frequency	100 Hz
Utilization category	DC -12

### Environmental conditions

Ambient temperature	10...55 °C
Contamination scale	1
IP rating	IP67

### Functional safety

MTTF (40 °C)	217 a
--------------	-------

### Interface

Analog output	Analog, current falling on approach
---------------	-------------------------------------

### Material

Cover material	PBT
Housing material	1.4301 stainless steel
Material jacket	PVC
Material sensing surface	PBT

### Mechanical data

Dimension	Ø 18 x 65 mm
Installation	for flush mounting
Size	M18x1
Thread (A)	M18x1
Tightening torque	30 Nm

Capacitive Sensors  
**BCW M18B4M1-ICM80C-DV02**  
Order Code: BCW0001

**BALLUFF**

**Range/Distance**

Measuring range 0...8 mm

Rated operating distance  $S_n$  8 mm  
Repeat accuracy max. (% of  $S_r$ ) 1 %  
Temperature drift max. (% of  $S_r$ ) 10 %

**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.

**Wiring Diagrams**

