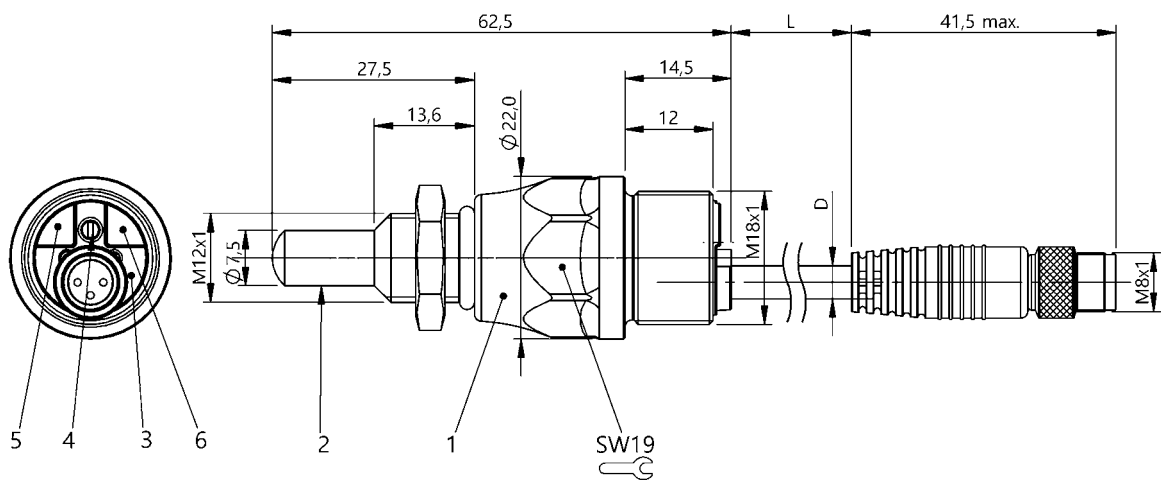


Capacitive Sensors  
BCS S44KK01-PSCFAG-EP00,3-GS49  
Order Code: BCS0105



1) Housing, 2) Sensing surface, 3) Cover, 4) Potentiometer, 5) Function indicator yellow, 6) Power indicator green



### Basic features

|                     |                                                                |
|---------------------|----------------------------------------------------------------|
| Additional features | Electrically conductive media<br>Foam and residue compensation |
| Approval/Conformity | CE<br>UKCA<br>WEEE<br>cULus                                    |
| Basic standard      | IEC 60947-5-2                                                  |
| Scope of delivery   | Nut + O-ring Ø10x2<br>Screwdriver<br>Short guide               |
| Sensitivity         | media-dependent, adjustable                                    |
| Series              | S44                                                            |

### Electrical data

|                                           |             |
|-------------------------------------------|-------------|
| Load capacitance max. at Ue               | 10 µF       |
| No-load current I <sub>o</sub> max. at Ue | 12 mA       |
| Operating voltage U <sub>b</sub>          | 10...30 VDC |
| Rated insulation voltage U <sub>i</sub>   | 75 V DC     |
| Rated operating current I <sub>e</sub>    | 50 mA       |
| Rated operating voltage U <sub>e</sub> DC | 24 V        |
| Ready delay t <sub>v</sub> max.           | 100 ms      |
| Ripple max. (% of U <sub>e</sub> )        | 10 %        |
| Switching frequency                       | 5 Hz        |
| Utilization category                      | DC -13      |
| Voltage drop static max.                  | 2 V         |

### Display/Operation

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

### Electrical connection

|                                   |                  |
|-----------------------------------|------------------|
| Cable diameter D                  | 4.70 mm          |
| Cable length L                    | 0.3 m            |
| Connection                        | M8x1-Male, 3-pin |
| Polarity reversal protected       | yes              |
| Protection against device mix-ups | yes              |
| Short-circuit protection          | yes              |

### Environmental conditions

|                     |                                            |
|---------------------|--------------------------------------------|
| Ambient temperature | -5...105 °C, UL approval valid up to 85 °C |
| Contamination scale | 3                                          |
| IP rating           | IP67, sensing surface: IP68 10 bar         |

### Functional safety

|              |       |
|--------------|-------|
| MTTF (40 °C) | 135 a |
|--------------|-------|

### Interface

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

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**BALLUFF**

#### Material

|                          |      |
|--------------------------|------|
| Cover material           | PA   |
| Housing material         | PEEK |
| Material jacket          | PUR  |
| Material sensing surface | PEEK |

#### Mechanical data

|                   |                |
|-------------------|----------------|
| Dimension         | Ø 12 x 62.5 mm |
| Installation      | non-flush      |
| Size              | M12x1          |
| Thread (A)        | M12x1          |
| Tightening torque | 1.5 Nm         |

#### Remarks

Note for using in standard applications with aqueous media: The Smart Level sensors are factory adjusted for standard applications. With this setting the Smart Level sensors can be used without further adjustment for detecting aqueous media. The factory setting can compensate for foam, moisture and dirt buildup. Special applications: The sensors with Smart Level FSA technology can also be used with aqueous media in previously unsolvable and critical applications. Here the user can change the factory setting .

The push-pull switching outputs must not be connected in parallel.

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.

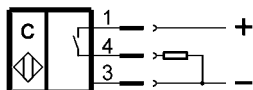
For more information about MTTF and B10d see MTTF / B10d Certificate

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.

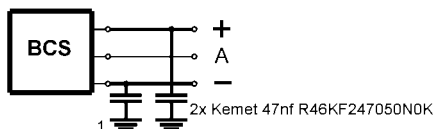
#### Connector Drawings



#### Wiring Diagrams



#### Installation remarks



1) Machine GND