

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



Basic features

Additional features	Electrically conductive media Foam and residue compensation
Approval/Conformity	CE UKCA cULus WEEE
Basic standard	IEC 60947-5-2
Scope of delivery	Nut (2x)
Sensitivity	media-dependent, adjustable
Series	M18

Electrical connection

Cable length L	2 m
Conductor cross-section	0.20 mm <sup>2</sup>
Number of conductors	3
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Electrical data

Operating voltage U <sub>b</sub>	10...35 VDC
Rated insulation voltage U <sub>i</sub>	75 V DC
Rated operating current I <sub>e</sub>	300 mA
Ripple max. (% of U <sub>e</sub> )	10 %
Switching frequency	2 Hz
Utilization category	DC -13
Voltage drop static max.	1.8 V

Environmental conditions

Ambient temperature	-10...60 °C
IP rating	IP66, IP64 at cable exit

Functional safety

MTTF (40 °C)	239 a
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Interface

Switching output	PNP normally closed (NC)
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Material

Cover material	PTFE
Housing material	PTFE
Material jacket	PTFE
Material sensing surface	PTFE

Mechanical data

Dimension	Ø 18 x 73 mm
Installation	non-flush
Size	M18x1
Thread (A)	M18x1
Tightening torque	0.5 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 through glass or plastic walls. The factory setting can automatically mask glass or plastic walls (approx. 0.5 mm to 6 mm) and compensate for foam, moisture and dirt buildup inside and outside the container. Special applications: The Smart Level sensors can also be used with aqueous media in previously unsolvable and critical applications such as through glass or plastic walls thicker than 6 mm. Here the user can change the factory setting.

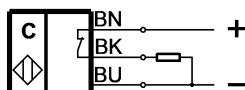
The potentiometer does not have a fixed stop, but can be turned endlessly without destroying anything.

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.

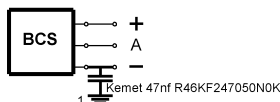
For more information about MTTF and B10d see MTTF / B10d Certificate

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 (Schematic)



## Installation remarks



1) Machine GND