

## KB300420

### Capacitive sensors • Norm switching distance

Sensor flush capacitive, M30x1.5 82long, flush, Sn: 0.5-25, 10-35V DC, 2x PNP exclusive-OR, M12 plug connector 4-pin, IP67, brass nickel-plated, LED, manual setting

including Nut



Capacitive proximity switches are contact-free sensors. They detect metallic and non-metallic objects, regardless of whether they move or not. The achievable sensing range of the devices depends on the object material, its dimensions and the response sensitivity, which is set via a potentiometer. The vibration-resistant sensors can be approached laterally or frontally. Capacitive proximity switches are used for presence detection (e.g. sealing detection), positioning (e.g. PET bottles), counting (e.g. plastic caps), level detection (e.g. lubricant) or distance measurements (e.g. thickness measurement) of solid and liquid materials.

#### Electrical features

Number of switching outputs	2
Display	LED display
Type of switching function	Exclusive-OR
Type of electrical connection	Connector M12
Type of switching output	PNP
Rated switching current	250 mA
Setting procedure	Potentiometer
Relative hysteresis	15 %
Correction factor (glass)	0.6
Correction factor (wood)	0.6
Correction factor (PVC)	0.5
Correction factor (oil)	0.5
Short-circuit protection	Yes
No-load current	15 mA
Number of pins	4
Switching distance	0,5 - 25 mm
Switching frequency	200 Hz
Voltage drop	2 V
Reverse polarity protection	Yes
Operating voltage (DC)	10 - 35 V
Output functions	Switching point

**Mechanical features**

Design	Cylinder, screw-thread
Diameter	30 mm
Thread length	55 mm
Thread pitch	1.5 mm
Length	82 mm
Mechanical mounting condition for sensor	flush
Surface	nickel-plated
Degree of protection (IP)	IP67
Active area material of sensor	Plastic (PTFE)
Housing material	Brass
Thread dimension	M30
Ambient temperature	-25 - 70 °C

**Other features**

Reference medium / object	Material with permittivity $\epsilon_r=81$
ardTE00_Anwendungen	Niveauabfrage

**Classification**

ETIM 8	EC002715 Capacitive proximity switch
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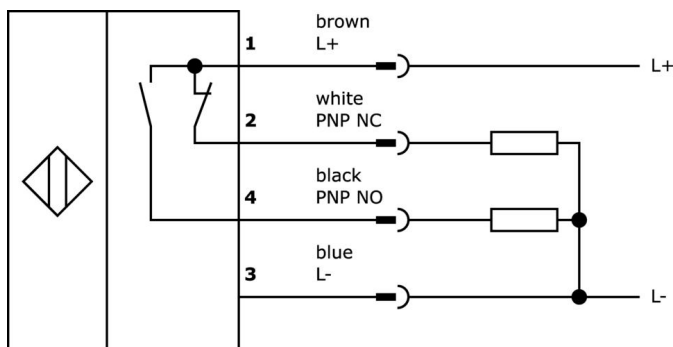
**More**

IPF Product Group	243 capacitive sensors (diverse)
packaging dimensions	105 x 43 x 43 mm
gross weight	160 g
Customs tariff number	85365019
WEEE number	40951076
Reach-compliant	Yes
RoHS-compliant	Yes

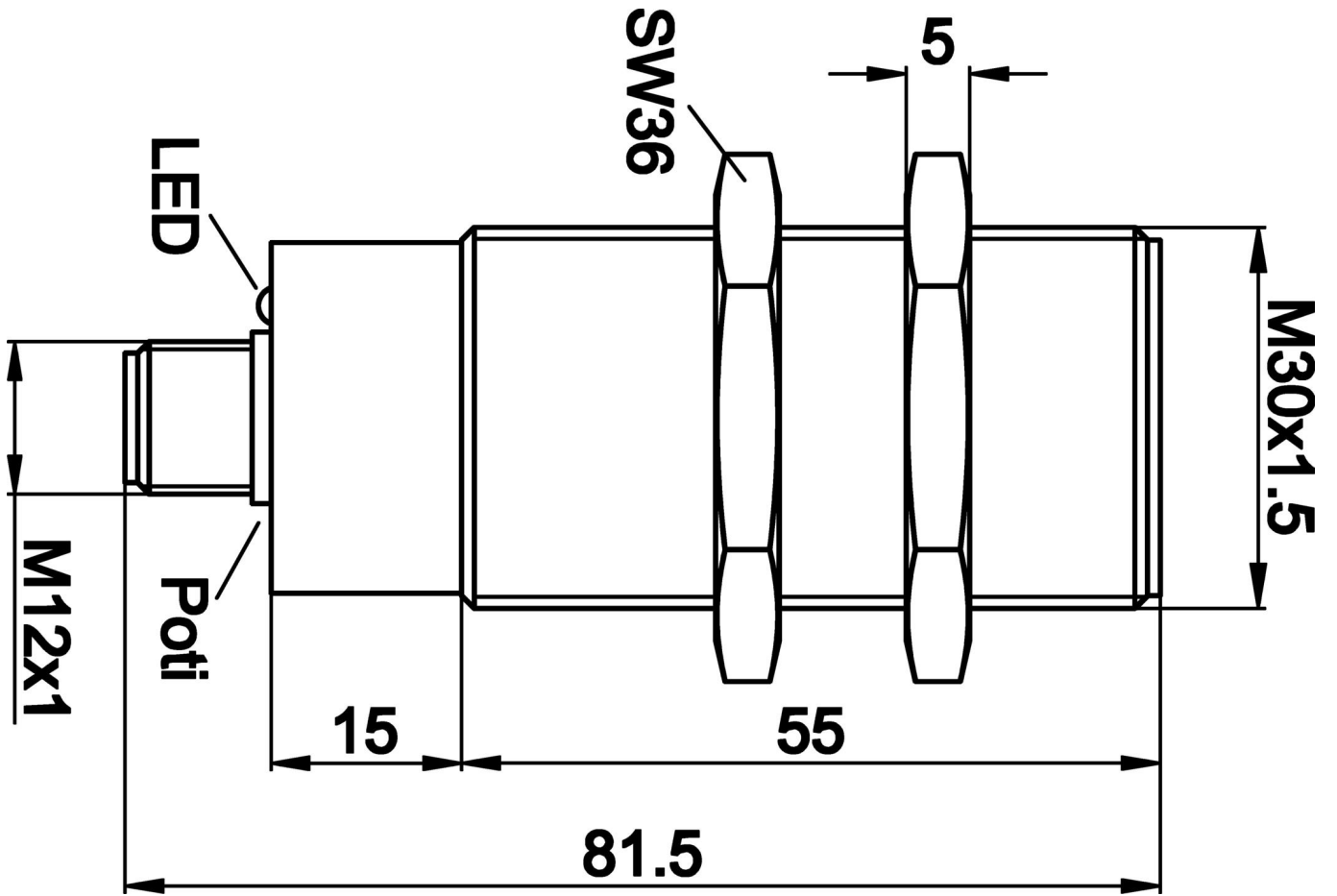
**Important notes**

*/* The potentiometer is located behind the coverage.

**Connection**



Dimensional drawing



**Extract accessories program**

**AY000015**



accessories sensor, Reduction sleeve, M30, Plastic

**VK000041**



Adaption, M12 Female (socket) 4pin Straight, M8 Male (connector) 4pin Straight, 24V, -25-85°C, IP67, Oil and cooling lubricants, Welding area

**AY000070**



Tool, Flat-tip screwdriver, 1.6x0.4mm, Grip design 1-component

**AY000154**



Tool, Screwdriver set, Internal hexagon 0.7mm, Internal hexagon 0.9mm, Internal hexagon 1.3mm, Internal hexagon 1.5mm, Internal hexagon 2mm, Slot 1.5mm, Slot 2mm, Slot 2.5mm, Chromium steel

**VL600104**



Logic module, 42x122x60mm, AND, 4-gang, 10-30V DC, 4-pin M12 socket on sensor side, 4-pin M12 connector on control side, IP67, plastic

**VL600108**



Logic module, 42x172x60mm, AND, 8fold, 10-30V DC, sensor side M12 Female (socket) 4pin, control side M12 Male (connector) 4pin, IP67, Plastic

**AY000027**



accessories, Hexagon nut, M30x1.5, Wrench size 36mm, Brass Nickel-plated

**AY000061**



accessories sensor, Ø30mm, Plastic, For sensor 30mm, for Wall mounting, Screw mounting

**AY000129**



Accessories, magnetic, Ø66mm, neodymium-iron-boron, inside thread M6, rubber

You can find further accessories on our homepage



**Installation**

Mounting / installation may only be carried out by a qualified electrician!



**Disposal**

WEEE number according to § 6 para. 3 ElektroG: 40951076

**Safety warnings**

/ Before initial operation, please make sure to follow all safety instructions that may be provided in the product information.

/ Never use these devices in applications where the safety of a person depends on their functionality.