

KB300120

Capacitive sensors • Norm switching distance

Sensor capacitive, M30x1.5 82long, flush, Sn: 0.5-25, 10-35V DC, PNP NO, M12 plug connector 3-pin, IP67, nickel-plated (n-pltd) brass, LED, manual setting

including Nut, Screwdriver



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

Display	LED display
Type of switching function	Normally open contact (NO)
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	3
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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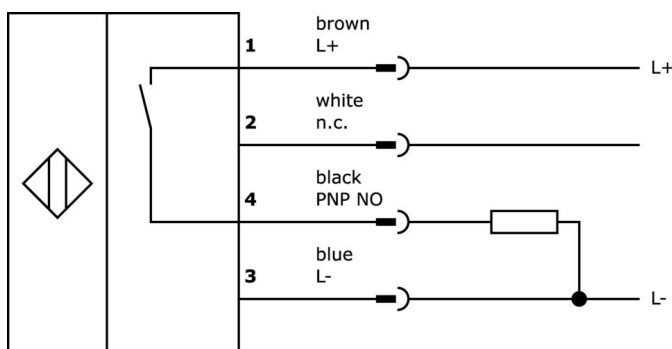
More

IPF Product Group	240 capacitive sensors
packaging dimensions	105 x 43 x 43 mm
gross weight	150 g
Customs tariff number	85365019
WEEE number	40951076
Reach-compliant	Yes
RoHS-compliant	Yes

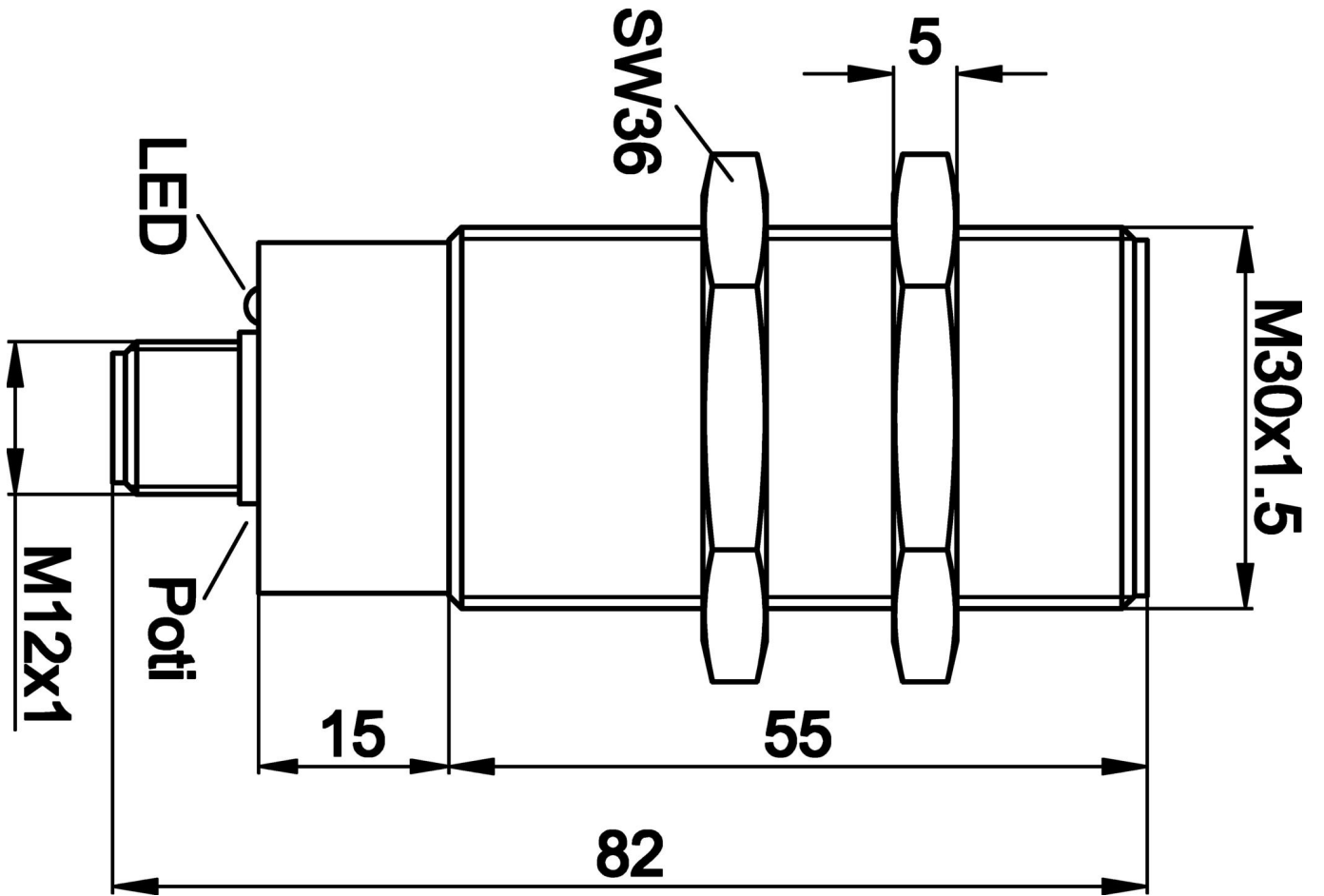
Important notes

/ The potentiometer is located behind the coverage.

Connection



Dimensional drawing



Extract accessories program

VK003021



Cable socket, Angular, Suitable for self-assembly, Screw connection, Ø3-6.5mm, 4A, 60V, -25-90°C, M12 Female (socket) 5pin, IP67, PBT

VK003025



Cable socket, Straight, Suitable for self-assembly, Screw connection, Ø3-6.5mm, 4A, 60V, -25-90°C, M12 Female (socket) 5pin, IP67, PBT

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

VK200021



Connection cable, 2m, M12 Female (socket) 3pin Angular, Free conductor end, 3x0.34mm², PUR (Polyurethane), Ø4.3mm, 250V, -30-90°C, IP67, Suitable for trailing chain and torsion resistant, Oil and cooling lubricants, Welding area, Silicone-free

VK200025



Connection cable, 2m, M12 Female (socket) 3pin Straight, Free conductor end, 3x0.34mm², PUR (Polyurethane), Ø4.3mm, 250V, -30-90°C, IP67, Suitable for trailing chain and torsion resistant, Oil and cooling lubricants, Welding area, Silicone-free

AY000162



Accessories, magnetic, Ø43mm, neodymium-iron-boron, inside thread M5, rubber

AY000159



accessories sensor, Mounting pipe, Ø12mm 200long, Aluminum Anodised

VK030F21



Connection cable, 0.3m, M12 socket 4-pin angular, M12 connector 4-pin straight, 4x0.34mm², 240V, IP67, suitable for trailing chain and torsion resistant, oils and cooling lubricants, welding area, silicone-free

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.