

KN300420

Capacitive sensors • Norm switching distance

Sensor capacitive, M30x1.5 82long, non-flush, Sn: 1-30, 10-35V DC, 2x PNP exclusive-OR, M12 plug connector 4-pin, IP67, nickel-plated (n-pltd) brass, LED, manual setting

including Nut, Screwdriver



Capacitive proximity switches are contactless sensors. They detect metallic and non-metallic objects, regardless of whether they are moving or not. The achievable switching distance of the devices depends on the object material, its dimensions and the response sensitivity set via a potentiometer. The vibration-resistant sensors can be approached laterally or from the front. Capacitive proximity switches are used for presence detection (e.g. seal detection), positioning (e.g. PET bottles), counting (e.g. plastic lids), level detection (e.g. lubricants) or distance measurement (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
No-load current	15 mA
Number of pins	4
Switching distance	1 - 30 mm
Switching frequency	50 Hz
Voltage drop	2 V
Operating voltage (DC)	10 - 35 V
Output functions	Switching point
ardTEEL_Schutzfunktionen	Verpolungsschutz Kurzschlusschutz

Mechanical features

Design	Cylinder, screw-thread
Diameter	30 mm
Thread length	40 mm
Thread pitch	1.5 mm
Length	82 mm
Mechanical mounting condition for sensor	non-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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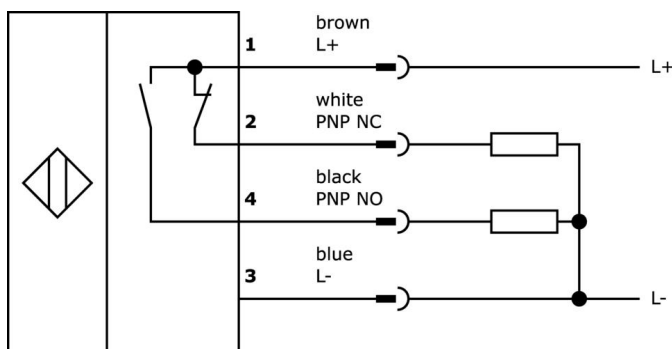
More

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
MTTF	1227 year(s)

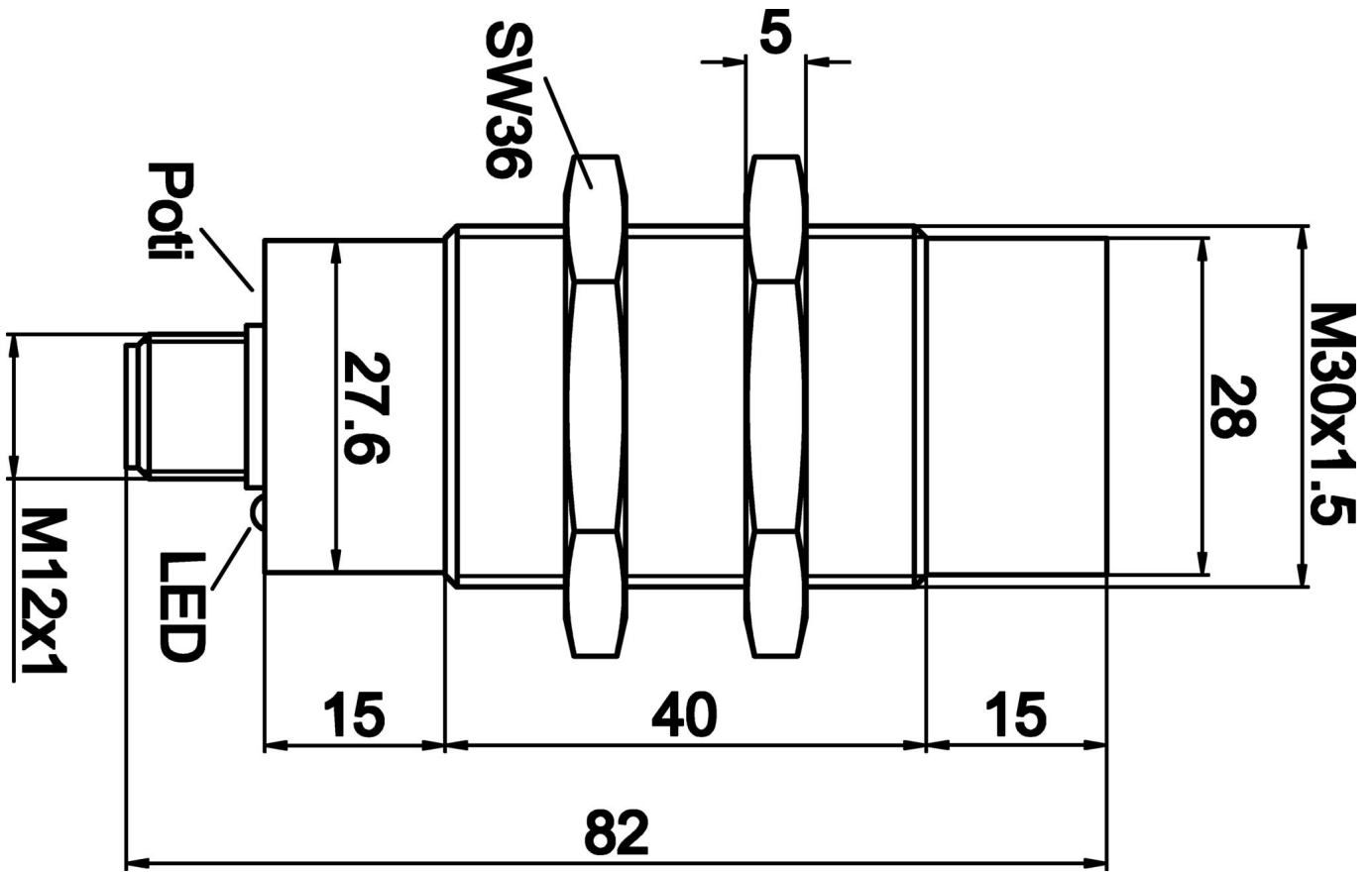
Important notes

/ The potentiometer is located behind the coverage.

Connection



Dimensional drawing



Extract accessories program

AY000162



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

AY000159



Accessories sensor, mounting tube, Ø12mm 200long, aluminum anodized/anodized

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

AY000015



accessories sensor, Reduction sleeve, M30, Plastic

VY030224



Signal inversion, 10-35V DC, 1x NC/NO, M12 3pin 0.3m, IP67, Plastic

VY031124



Inverter, PNP/NPN, 10-35V DC, 1x NO, M12 3pin 0.3m, IP67, Plastic

VK000041



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

NG530002



DC power supply, single-phase, 99x114x22mm, 24V, 0.1A, Number of relay outputs 2, 100-264V AC 50Hz, 100-264V AC 60Hz, Screw connection, IP20, Plastic, Stabilized, Output voltage, pulsed

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.