

KN180420

Capacitive sensors • Norm switching distance

Sensor capacitive, M18x1 84long, non-flush, Sn: 0.5-15, 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 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 - 15 mm
Switching frequency	50 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	18 mm
Thread length	44 mm
Thread pitch	1 mm
Length	84 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	M18
Ambient temperature	-25 - 70 °C

Other features

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

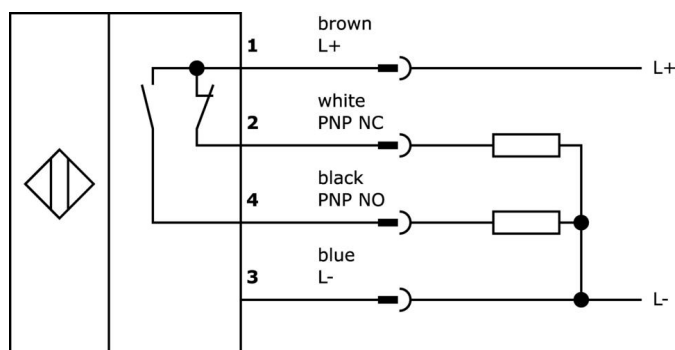
Classification

ETIM 8	EC002715 Capacitive proximity switch
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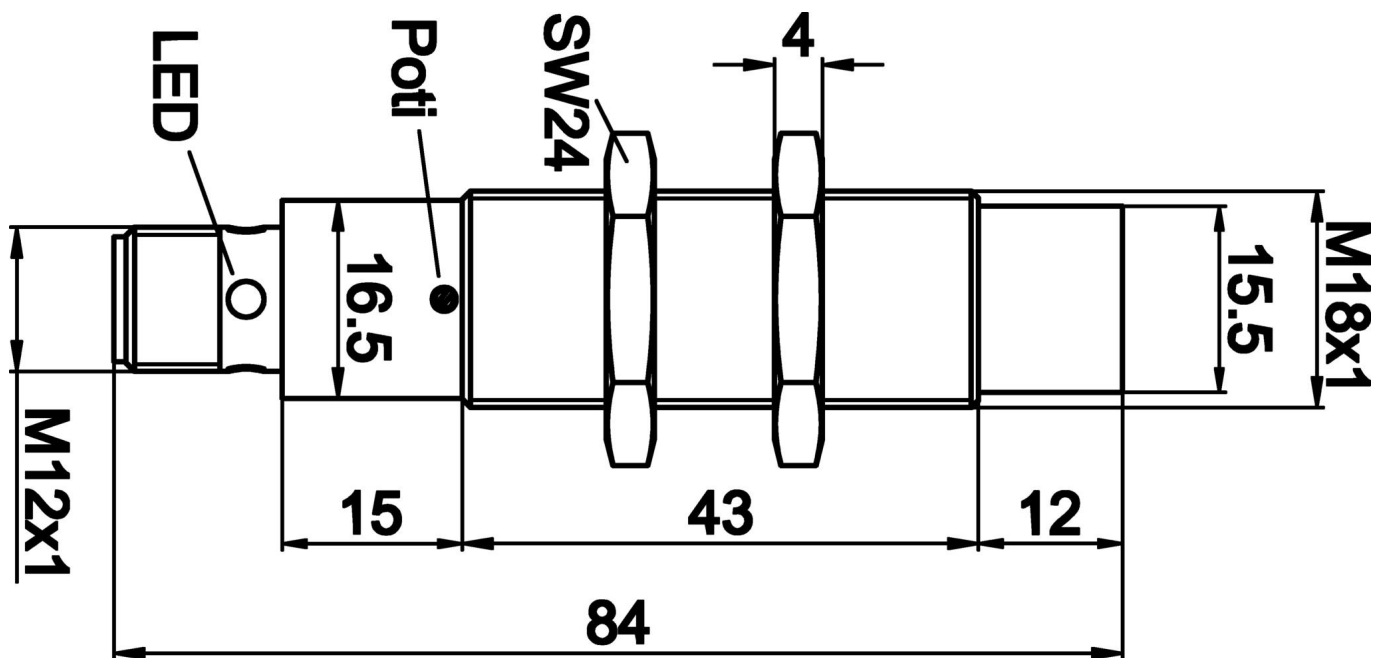
More

IPF Product Group	243 capacitive sensors (diverse)
packaging dimensions	123 x 77 x 25 mm
gross weight	80 g
Customs tariff number	85365019
WEEE number	40951076
Reach-compliant	Yes
RoHS-compliant	Yes

Connection



Dimensional drawing



Extract accessories program

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

AY000129



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

AY000144



accessories sensor, Adapter plate, 3x30x85mm, Stainless steel 1.4305

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

AY000162



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

AY000159



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

AY000117



accessories sensor, Fixture kit, Metal, ball joint

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.