

## KN180420

### Capacitive sensors • Norm switching distance

sensor capacitive, M18x1 84long, Non-flush, Sn: 0.5-15, 10-35V DC, 2x PNP  
Anticoincidence, Connector M12 4pin, IP67, Brass Nickel-plated, LED, Manual  
adjustment

including 2x Nut, 1x 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	250mA
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	15mA
Number of pins	4
Switching distance	0,5 - 15mm
Switching frequency	50Hz
Voltage drop	2V
Reverse polarity protection	Yes
Operating voltage (DC)	10 - 35V
Output functions	Switching point

## Mechanical features

Design	Cylinder, screw-thread
Diameter	18mm
Thread length	44mm
Thread pitch	1mm
Length	84mm
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

Level detection	Yes
Reference medium / object	Material with permittivity $\epsilon_r=81$
Ambient temperature	-25 - 70°C

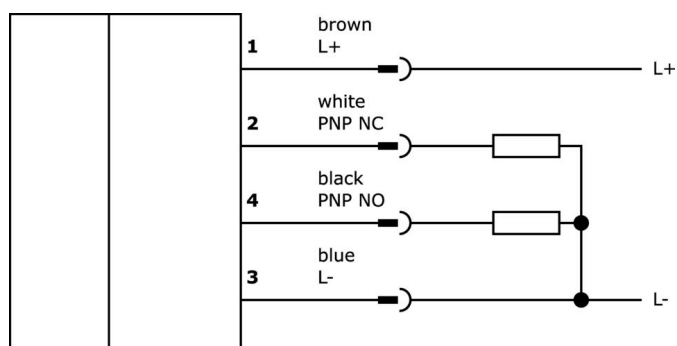
## Classification

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



## Installation



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

## Disposal



### 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.

For suitable connection and mounting accessories, please refer to our website [www.ipf-electronic.com](http://www.ipf-electronic.com).

### Dimensional drawing

