

## KA180120

### Capacitive sensors • Increased switching distance

Sensor capacitive, M18x1 80long, flush, Sn: 12mm, 10-30V DC, PNP NO, M12 plug connector 3-pin, IP67, nickel-plated 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

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	200 mA
Setting procedure	Potentiometer
Correction factor (glass)	0.6
Correction factor (wood)	0.6
Correction factor (PVC)	0.5
Correction factor (oil)	0.5
No-load current	9 mA
Number of pins	3
Switching distance	12 mm
Switching frequency	100 Hz
Voltage drop	2 V
Operating voltage (DC)	10 - 30 V
Output functions	Switching point
ardTEEL_Schutzfunktionen	Short circuit protection   Reverse polarity protection

**Mechanical features**

Design	Cylinder, screw-thread
Thread length	53.5 mm
Thread pitch	1 mm
Length	80 mm
Maximum tightening torque	35 Nm
Mechanical mounting condition for sensor	flush
Surface	nickel-plated
Degree of protection (IP)	IP67
Active area material of sensor	Plastic (PBT)
Housing material	Brass
Thread dimension	M18
Ambient temperature	-20 - 70 °C

**Other features**

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

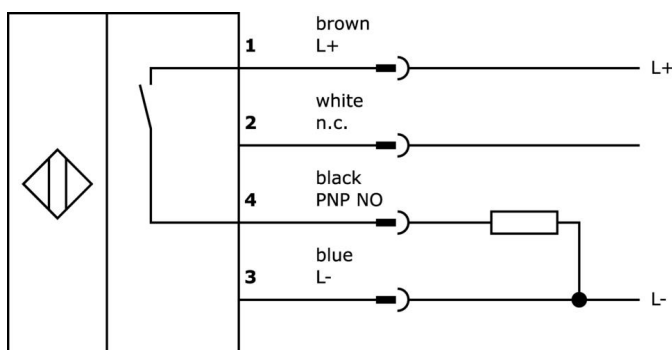
**Classification**

ETIM 8
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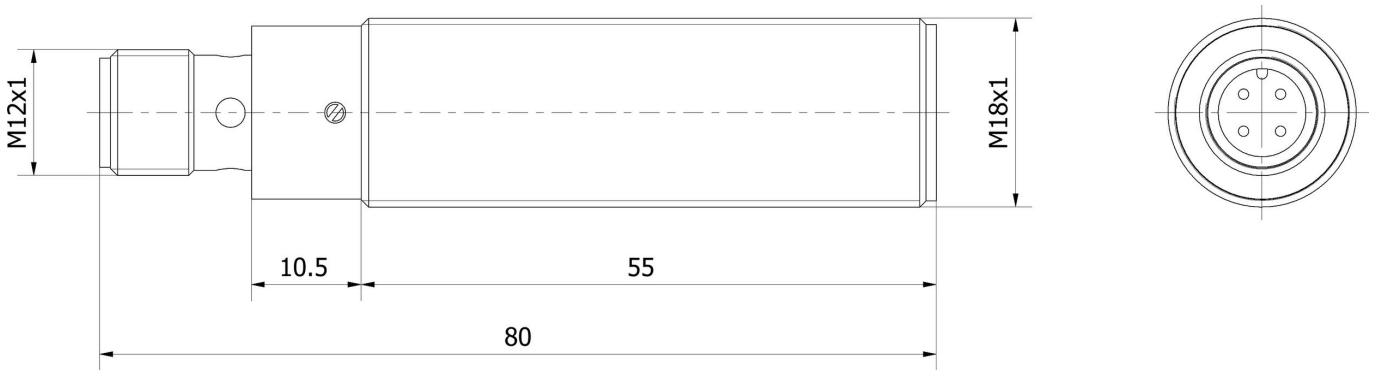
**More**

IPF Product Group	240 capacitive sensors
packaging dimensions	200 x 145 x 19 mm
gross weight	50 g
Customs tariff number	85365019
WEEE number	40951076
Reach-compliant	Yes
RoHS-compliant	Yes

**Connection**



**Dimensional drawing**



**Extract accessories program**

**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

**VY000004**



DC power supply, sensor tester, 120x26x72mm, 18V, 0.04A, Spring clamp connection 4pin, IP20, Plastic

**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

**VK200021**



Connection cable, 2m, M12 socket 3-pin angular, free cable end, 3x0.34mm<sup>2</sup>, PUR (polyurethane), Ø4.3mm, 250V, -30-90°C, IP67, suitable for trailing chain and torsion resistant, oils and cooling lubricants, welding area, silicone-free

**VK200025**



Connection cable, 2m, M12 socket 3-pin straight, free cable end, 3x0.34mm<sup>2</sup>, PUR (polyurethane), Ø4.3mm, 250V, -30-90°C, IP67, suitable for trailing chain and torsion resistant, oils and cooling lubricants, welding area, silicone-free

**VK200221**



Connection cable, 2m, M12 socket 3-pin angular, free cable end, 3x0.34mm<sup>2</sup>, PUR (polyurethane), Ø4.3mm, -30-90°C, IP67, LED, suitable for trailing chain and torsion resistant, oils and cooling lubricants, welding area, silicone-free

**VK200225**



Connection cable, 2m, M12 socket 3-pin straight, free cable end, 3x0.34mm<sup>2</sup>, PUR (polyurethane), Ø4.3mm, -30-90°C, IP67, LED, suitable for trailing chain and torsion resistant, oils and cooling lubricants, welding area, silicone-free

**VK003020**



Cable socket, angular, self-assembly, screw connection, Ø3-6.5mm, 4A, 240V, -25-90°C, M12 socket 4-pin, IP67, PBT

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.