

KN200177

CAPACITIVE SENSORS • NORM SWITCHING DISTANCE

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.



MECHANICAL DATA

Active area material of sensor	PA 6.6 (synthetic)
Ambient temperature	-25 °C ... 70 °C
Degree of protection (IP)	IP67
Housing design	Cylinder plain
Housing material	PBT
Mechanical mounting condition for sensor	Non-flush
Pressure-proof	No
Sensor diameter	20 mm
Sensor length	81 mm

ELECTRICAL DATA

Cascadable	No
Correction factor (glass)	0.6
Correction factor (oil)	0.5
Correction factor (PVC)	0.5
Correction factor (wood)	0.6
Hysteresis	15 %
Max. output current	200 mA
No-load current	15 mA
Number of pins	4
Rated control supply voltage U_s at DC	10 V ... 60 V
Reverse polarity protection	Yes
Setting procedure	Manual adjustment
Short-circuit-proof	Yes
Suitable for safety functions	No
Supply voltage	10 V ... 60 V
Switching distance	15 mm
Switching distance	3.5 mm ... 15 mm
Switching frequency	25 Hz
Type of electrical connection	Connector M12
Type of switching function	Normally open contact

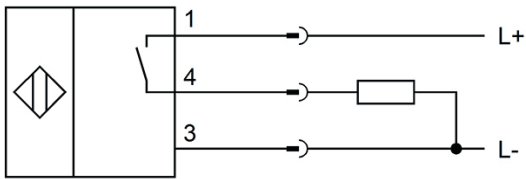
ELECTRICAL DATA

Type of switching output	PNP
Voltage drop	3 V
Voltage type	DC
With LED display	Yes
With monitoring function of downstream devices	No

OTHER DATA

Level detection	Yes
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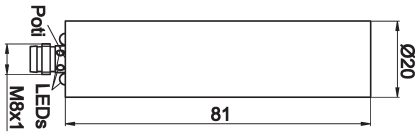
CONNECTION



Colors: 1 = BN (brown), 3 = BU (blue), 4 = BK (black)

Functions: 1 = L+, 3 = L-, 4 = PNP NO

DIMENSIONAL DRAWING



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!