KB300120

capacitive sensors



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.



TECHNICAL DATA

Active area material of sensor	PTFE
Ambient temperature (min/max)	-25 °C / 70 °C
Ambient temperatures < -25°C	NO
Degree of protection (IP)	IP67
Devices for hose / pipe mounting	NO
Housing coating	Nickel-plated
Housing design	Cylinder, screw-thread
Housing material	Brass
Increased ambient temperatures > 80°C	NO
Mechanical mounting condition for sensor	Concise
Pressure-proof	NO
Sensor length	82 mm
Teflon housing	NO
Thread length	55 mm
Thread pitch	1.5 mm
Thread size, metric	30
Auto-adaptive	NO
Cascadable	NO
Correction factor (PVC)	0.5
Correction factor (glass)	0.6
Correction factor (oil)	0.5
Correction factor (wood)	0.6
Distance measuring sensors	NO
Hysteresis	15 %
Max. output current	400 mA
No-load current	15 mA
Number of pins	3
Protected against electrostatic charge	NO
Rated control supply voltage Us at DC (min/max)	10 V / 35 V
Reverse polarity protection	YES
Setting procedure	Manual adjustment

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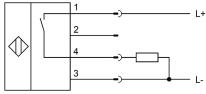
capacitive sensors



TECHNICAL DATA

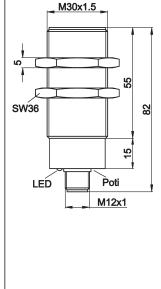
Short-circuit-proof	YES
Suitable for safety functions	NO
Supply voltage (min/max)	10 V / 35 V
Switching distance	10 mm
Switching distance (min/max)	0.5 mm / 25 mm
Switching frequency	200 Hz
Type of electrical connection	Connector M12
Type of switching function	Normally open contact
Type of switching output	PNP
Voltage drop	2 V
Voltage type	DC
With LED display	YES
With monitoring function of downstream devices	NO
Ceramic sensor surface	NO
Detection of labels	NO
Level detection	YES
Level detection of sand container for railed vehicles	NO
Level detection of synthetic granules for injection molding machines	NO

CONNECTION



Colors: 1 = BN (brown), 2 = WH (white), 3 = BU (blue), 4 = BK (black) **Functions:** 1 = L+, 2 = n. c., 3 = L-, 4 = pnp no

DIMENSIONAL DRAWING



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