KA080170

Capacitive sensors ● Increased switching distance

sensor capacitive, M8x1 60long, Flush, Sn: 2mm, 10-30V DC, PNP NO, Connector M8 3pin, IP67, Stainless Steel 1.4301, LED

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

Display	LED display
Type of switching function	Normally open contact (NO)
Type of electrical connection	Connector M8
Type of switching output	PNP
Rated switching current	200mA
Setting procedure	Potentiometer
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	9mA
Number of pins	3
Switching distance	2mm
Switching frequency	100Hz
Voltage drop	2V
Reverse polarity protection	Yes
Operating voltage (DC)	10 - 30V
Output functions	Switching point

ipf electronic gmbh | Rosmarter Allee 14 ● 58762 Altena - Germany | Tel +49 2351 9365-0 ● info@ipf-electronic.com ● **www.ipf-electronic.com**

1

Mechanical features

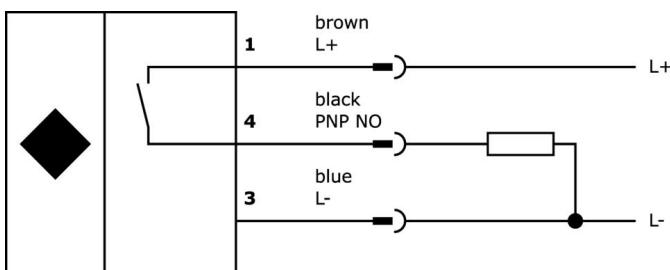|	
Design	Cylinder, screw-thread
Thread length	39mm
Thread pitch	1mm
Length	60mm
Maximum tightening torque	6Nm
Mechanical mounting condition for sensor	flush
Degree of protection (IP)	IP67
Active area material of sensor	Plastic (PBT)
Housing material	Stainless steel 1.4301
Thread dimension	M8
Ambient temperature	-20 - 70°C

Other features

Level detection	Yes
Reference medium / object	Material with permittivity $\varepsilon_r=81$
Ambient temperature	-20 - 70°C

Classification

ETIM 8	EC002715 Capacitive proximity switch

More

IPF Product Group	240 capacitive sensors
packaging dimensions	200 x 140 x 9 mm
gross weight	17 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

ipf electronic gmbh | Rosmarter Allee 14 ● 58762 Altena - Germany | Tel +49 2351 9365-0 ● info@ipf-electronic.com ● **www.ipf-electronic.com**

2

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.

Dimensional drawing

ipf electronic gmbh | Rosmarter Allee 14 ● 58762 Altena - Germany | Tel +49 2351 9365-0 ● info@ipf-electronic.com ● **www.ipf-electronic.com**

3