

FCS02

Capacitive Level Switch

- for bulk material, liquids, sludges, separating layers and foam detection
- easy mounting, low maintenance
- no moving parts
- max. pressure: 10 bar
- max. temperature: 130 °C
- with built-in sleeve hygienic and free of dead space



Description:

The capacitive level switch FCS02 uses the dielectric constant of the medium to be monitored, which is different from air, in order to detect its presence.

Inside a plastic protection tube there is a plate capacitor whose electrical properties depend on the dielectric constant of the surrounding medium. The capacitance of this capacitor is measured and evaluated by measuring the impedance of a circuit loaded with high-frequency current.

The response sensitivity of the FCS02 can be preset at the factory on request.

The push-pull switching output makes level monitoring easy to implement.

In conjunction with the welding socket, this results in a hygienic installation situation.

Typical applications:

The FCS02 is suitable for monitoring solid and liquid media as well as sludges and foams

The sensor material is made of high-quality and hygienic PEEK, so that even aggressive and abrasive substances can be easily detected.

The chemical resistance of the FCS02, its high vibration insensitivity, its precision and last but not least its favourable price make the FCS02 a universal device which is able to replace tuning fork switches, rotary vane monitors or float switches in many places.

Technical Data:

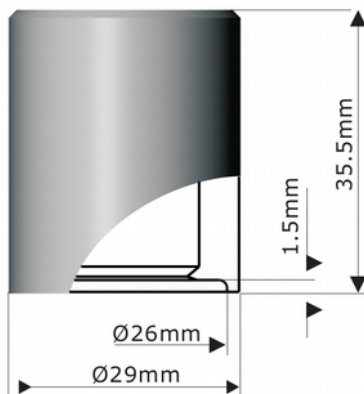
Process temperature:	0...100 °C / max 130 °C (< 1h) with ambient temperature
Ambient temperature:	-10...+70 °C
Storage temperature:	-20...+70 °C
Pressure:	maximal 10 bar
Media:	liquids, bulk materials, sludges, separating slayers, foam
Process connection:	G ½ male thread G ½ male with welding socket
Material connection:	stainless steel 1.4401
Material sensor:	PEEK
Accuracy:	5 mm
Reproducibility:	2 mm

Electrical Data:

Auxiliary power:	$U_b=24$ VDC (12...32 VDC)
Output signal:	Push-Pull
Switch-on delay:	< 0,3 sec
response dynamics:	< 0,2 sec
Dielectric constant:	min. 2
Protection class:	IP67

Welding socket:

The capacitive level monitor switch FCS02 forms a hygienically sealing system with the corresponding welding socket without further sealing materials. The measuring device closes with the PEEK cone absolutely free of dead space with the stainless steel sleeve.



Temperature range:	-10...+150 °C
Material:	stainless steel 1.4404
Pressure range:	0...10 bar
Screw-in thread:	G ½ female thread
Gasket:	metal to PEEK (sensor of measuring instrument)

Order Code:

Order number:	FCS02.	E.	1.	1.	V.	P.	0.
Capacitive level switch							
Process connection:	G = G ½ male thread E = G ½ male thread with welding socket						
Electrical connection:	1 = M12x1-round plug, 5 pole						
Sensor material:	1 = PEEK						
Power supply:	V = 24 V (12...32 VDC)						
Output signal:	P = Push-Pull						
Options:	0 = without 9 = please specify in plain text						

Accessory:



Order number:	SM12.	5.	2.	G.	0.
M12-connector with PVC cable					
Number of poles:	5 = 5-pole				
Cable length:	0 = without cable for self-assembly 2 = 2 m PVC cable (standard) 5 = 5 m PVC cable 10 = 10 m PVC cable				
Type:	G = straight W = angled				
Options:	0 = without 9 = please specify in plain text				

Dimensions:

