

FM910320

Filling level sensors • guided microwave

Filling level sensor, microwave, 3/4" 430 long, G3/4", 20-27V DC, PNP programmable/configurable, M12 plug connector 4-pin, IP67, V4A, probe 1x Ø16mm 300 long, parameterization



There are filling level and level sensors that work according to different measuring principles. The choice of sensor depends on the medium to be detected and the environmental conditions. The material flow in a vibrating bowl can be inquired excellently with inductive level sensors whose pendulum is moved by the material in the bowl. Filling levels of liquid or solid media can be detected using capacitive filling level sensors, for example. These work according to the capacitor principle; the medium changes the dielectricity between two electrodes. The resulting change is converted into a digital output signal. Conductive filling level relays offer another alternative for detecting the filling level of conductive media. The resistance between the reference and meter electrode is determined. If the level falls below or overruns a set threshold, a relay output switches.

Electrical features

Number of switching points	2
Display	LED display
Type of switching function	Programmable/configurable
Type of electrical connection	Connector M12
Type of switching output	PNP
Rated switching current	200 mA
Setting procedure	Parameterization
Short-circuit protection	Yes
No-load current	45 mA
Number of pins	4
Voltage drop	2 V
Reverse polarity protection	Yes
Measurement principle	Microwave
Operating voltage (DC)	20 - 27 V
Output functions	Switching point Hysteresis
Relative permittivity (ϵ_r) of the medium \geq	2

Mechanical features

Type of process connection	G3/4 inch
Design	Round
Pressure resistance	10 bar
Probe diameter	16 mm
Thread length	17 mm
Length	430 mm
Probe length	300 mm
Medium temperature	80 °C
Degree of protection (IP)	IP67
Housing material	Stainless steel 1.4571
Sensing element material	Stainless steel 1.4571
Thread dimension	3/4 inch
Ambient temperature	70 °C

Other features

Version	coaxial
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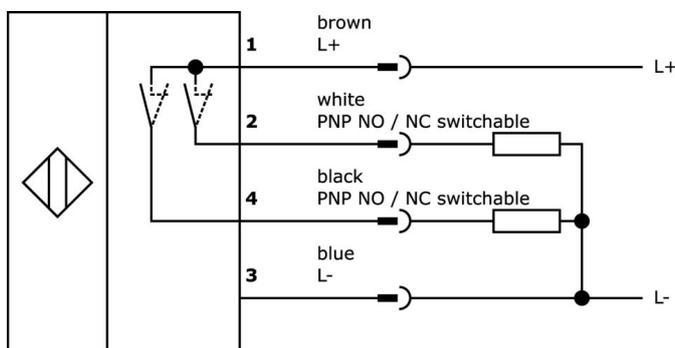
Classification

ETIM 8

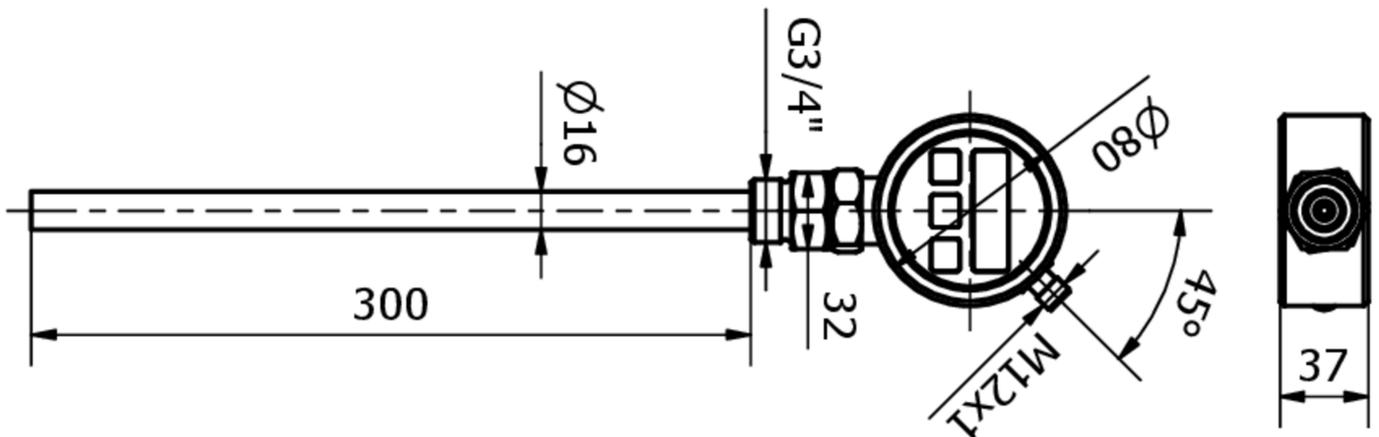
More

IPF Product Group	350 filling level sensors (capacitive/conductive)
packaging dimensions	
gross weight	
Customs tariff number	85365019
WEEE number	40951076
Reach-compliant	Yes
RoHS-compliant	Yes

Connection



Dimensional drawing



Extract accessories program

VK003021



Cable socket, Angular, Suitable for self-assembly, Screw connection, Ø3-6.5mm, 4A, 60V, -25-90°C, M12 Female (socket) 5pin, IP67, PBT

VK003025



Cable socket, Straight, Suitable for self-assembly, Screw connection, Ø3-6.5mm, 4A, 60V, -25-90°C, M12 Female (socket) 5pin, IP67, PBT

VK003020



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

VK003024



Cable socket, Straight, Suitable for self-assembly, Screw connection, Ø3-6.5mm, 4A, 240V, -25-90°C, M12 Female (socket) 4pin, 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.