

## FK90E017

### Filling level sensors • capacitive

sensor filling level, Capacitive, 1/2 inch 125long, G1/2 inch, 12-35V DC, PNP  
Anticoincidence, Connector M12 4pin, Stainless steel 1.4305+PEEK, IP67, probe  
Ø18mm 32.5long, Manual adjustment

including Screwdriver



Filling level and level sensors operate according to different measuring principles. The selection of the sensor depends on the medium to be detected and the ambient conditions. The material flow in a vibratory bowl can be excellently queried with inductive filling level sensors whose pendulum is moved by the material in the pot. The detection of liquid or solid media is, for instance, possible with capacitive filling level sensor technology. These work according to the principle of the condensator, the medium changes the dielectricity between two electrodes. The resulting change is converted into a digital output signal. A further alternative for the detection of filling levels of conductive media is provided by conductive filling level relays. The resistance between reference and measuring electrode is determined. If a set threshold is exceeded, a relay output switches.

#### Electrical features

Number of normally open contacts	1
Number of normally closed contacts	1
Display	LED display
Type of switching function	Exclusive-OR
Type of electrical connection	Connector M12
Type of switching output	PNP
Rated switching current	250 mA
Setting procedure	Potentiometer
Short-circuit protection	Yes
No-load current	20 mA
Number of pins	4
Switching frequency	1 Hz
Voltage drop	2 V
Reverse polarity protection	Yes
Measurement principle	Capacitive
Operating voltage (DC)	12,5 - 35 V
Output functions	Switching point

**Mechanical features**

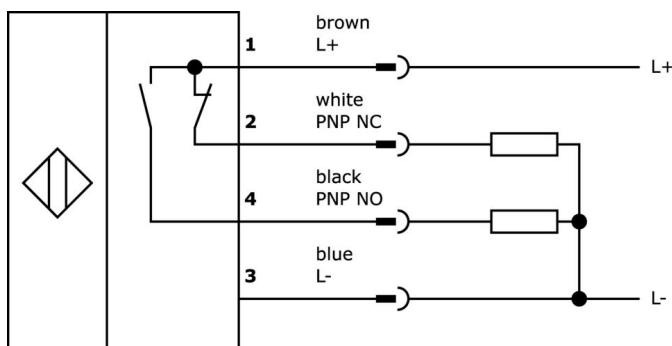
Type of process connection	G1/2 inch
Design	Cylinder, screw-thread
Pressure resistance	10 bar
Diameter	40 mm
Probe diameter	18 mm
Thread length	13.3 mm
Length	125 mm
Probe length	32.5 mm
Medium temperature	100 °C
Degree of protection (IP)	IP67
Housing material	Stainless steel 1.4305
Sensing element material	Plastic (PEEK)
Thread dimension	1/2 inch
Ambient temperature	-10 - 70 °C

**Classification**

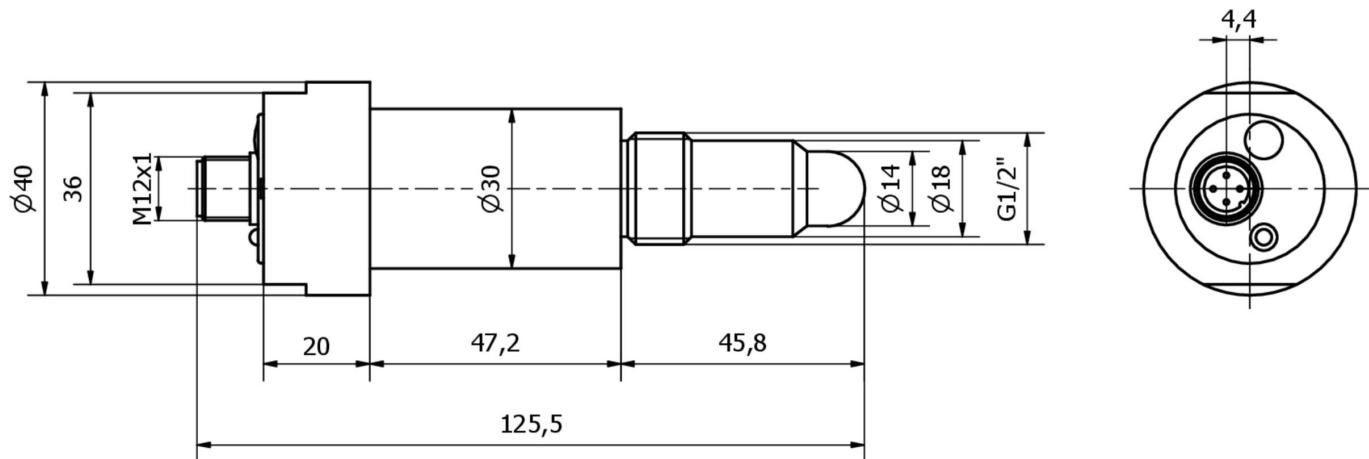
ETIM 8	EC001447 Level/level monitoring device
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**More**

IPF Product Group	350 filling level sensors (capacitive/conductive)
packaging dimensions	160 x 99 x 60 mm
gross weight	360 g
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) 3pin, IP67, PBT

## VK003025



Cable socket, Straight, Suitable for self-assembly, Screw connection, Ø3-6.5mm, 4A, 60V, -25-90°C, M12 Female (socket) 3pin, 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

## VK200321



Connection cable, 2m, M12 Female (socket) 4pin Angular, Free conductor end, 4x0.34mm<sup>2</sup>, PUR (Polyurethane), Ø4.7mm, 250V, -40-90°C, IP67, Suitable for trailing chain and torsion resistant, Oil and cooling lubricants, Welding area, Silicone-free

## VK200325



Connection cable, 2m, M12 Female (socket) 4pin Straight, Free conductor end, 4x0.34mm<sup>2</sup>, PUR (Polyurethane), Ø4.7mm, 250V, -40-90°C, IP67, Suitable for trailing chain and torsion resistant, Oil and cooling lubricants, Welding area, Silicone-free

## VK000037



Adaption, M12 Female (socket) 3pin Straight, M8 Male connector, 24V, 25-85°C, IP67, Oil and cooling lubricants, Welding area

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

**I** Before initial operation, please make sure to follow all safety instructions that may be provided in the product information.

**I** Never use these devices in applications where the safety of a person depends on their functionality.