

FM910120

FILLING LEVEL SENSORS • GUIDED MICROWAVE

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.

MECHANICAL DATA

Ambient temperature	-20 °C ... 85 °C
Degree of protection (IP)	IP67
Housing design	Special construction
Housing material	Stainless steel 1.4571
Increased ambient temperatures > 80°C	Yes
Medium temperature	-20 °C ... 85 °C
Pressure resistance	16 bar
Probe diameter	16 mm
Probe length	120 mm
Sensing element material	PTFE
Sensor diameter	50 mm
Sensor length	168 mm
Thread length	20 mm
Thread size, inches	3/4 inch
Type of process connection	G3/4 inch

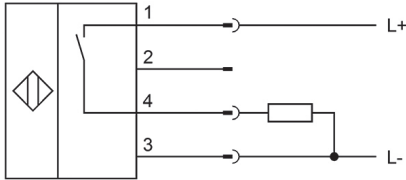
ELECTRICAL DATA

Max. output current	0.2 A
No-load current	50 mA
Number of contacts as normally open contact	1
Number of pins	3
Physical measurement principle	Microwave
Rated control supply voltage Us at DC	16 V ... 30 V
Response sensitivity, adjustable	Yes
Reverse polarity protection	Yes
Setting procedure	Manual adjustment
Short-circuit-proof	Yes
Switching frequency	5 Hz
Type of electrical connection	Connector M12

ELECTRICAL DATA

Type of switching function	Normally open contact
Type of switching output	PNP
Voltage drop	2 V
Voltage type for actuation	DC
With LED display	Yes

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

INSTALLATION



Mounting / Installation may only be carried out by a qualified electrician!

DISPOSAL



SAFETY WARNINGS

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