

**FI520170**
**FILLING LEVEL SENSORS • INDUCTIVE**

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 (MAX)	50 °C
Degree of protection (IP)	IP67
Depth	14 mm
Height	21 mm
Housing design	Cuboid
Housing material	Polyamid
Pendulum length	200 mm
Sensing element material	Plastic
Sensor height	21 mm
Sensor length	14 mm
Sensor width	52 mm
Width	52 mm
With plastic joint / plastic pendulum	Yes

**ELECTRICAL DATA**

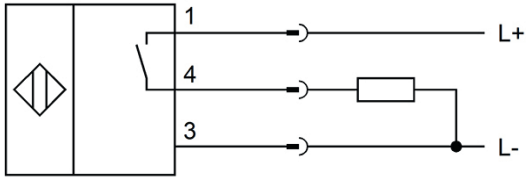
Max. output current	0.2 A
No-load current	15 mA
Number of contacts as normally open contact	1
Number of pins	3
Physical measurement principle	Inductive
Rated control supply voltage $U_s$ at DC (MAX)	30 V
Rated control supply voltage $U_s$ at DC (MIN)	10 V
Reverse polarity protection	Yes
Short-circuit-proof	Yes
Type of electrical connection	Connector M8
Type of switching function	Normally open contact
Type of switching output	PNP
Voltage drop	2 V
Voltage type for actuation	DC

## ELECTRICAL DATA

With LED display

Yes

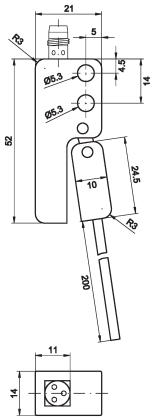
## CONNECTION



**Colors:** 1 = BN (brown), 3 = BU (blue), 4 = BK (black)

**Functions:** 1 = L+, 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!

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