dimensions	**G3/4"**
probe lengths	**300mm** **500mm** **800mm**

- ✓ **robust design in aluminum and stainless steel 1.4571**
- ✓ **parallel rod principle, thus increased precision**
- ✓ **analog output (4 to 20mA)**
- ✓ **easy programming via keypad on the display**
- ✓ **3 lenghts available (300, 500 and 800mm)**
- ✓ **no calibration necessary**
- ✓ **wear-free**
- ✓ **operating temperature range 0°C to +70°C**
- ✓ **degree of protection IP67**

guided microwave
analog output 4 ... 20mA

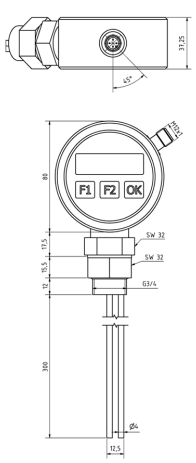
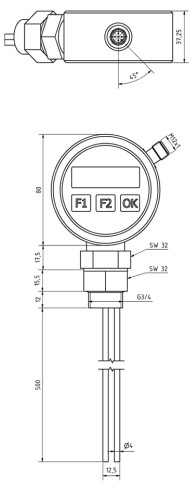
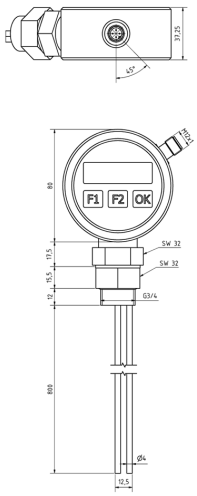
description
Filling level sensors from ipf electronic reliably detect the filling level of liquids and warn when a container is overfilled. The electronic sensors don't need any mechanical components and are therefore particularly robust. Regular maintenance and cleaning of the equipment is also not required.

The sensors allow an exact determination of the filling level in plastic and metal containers. In doing so, they detect a variety of liquids, e.g. water, oil or emulsions. The level measurement is carried out with the help of short electromagnetic pulses in the nanosecond range. The pulses are emitted from the sensor head and guided along the sensor rod.

If the microwave pulse hits the medium to be detected, it is reflected, returned to the sensor and evaluated. Due to their parallel rod design, these sensors work very precisely. A comparison to different media is not necessary!
The time duration between sending and receiving the pulse serves as a direct measure of the distance traveled and thus for the current filling level. This is output via the analog output (4 ... 20mA).

Made of aluminum and stainless steel 1.4571, the units are suitable for ambient temperatures from 0°C to + 70°C. The sensors are available in installation lengths of 300mm (**FM910023**), 500mm (**FM910024**) and 800mm (**FM910025**). The process connection is made via a G3/4" thread, for the electrical connection an M12-connector is provided. The parameters are set via the membrane keyboard and the LED display.

Application examples
- ▶ Continuous filling level measurement of liquids in tanks

article no.	FM910023	FM910024	FM910025
lenght (probe)	300mm	500mm	800mm
			
TECHNICAL DATA			
ELECTRICAL DATA			
response sensitivity adjustable	yes	yes	yes
analog output	4mA ... 20mA	4mA ... 20mA	4mA ... 20mA
electrical connection	M12-connector	M12-connector	M12-connector
rated control supply voltage Us with DC	20 ... 27V	20 ... 27V	20 ... 27V
adjustment	parameterization	parameterization	parameterization
short-circuit protection	yes	yes	yes
no-load current	45mA	45mA	45mA
max. output current	200mA	200mA	200mA
with LED display	yes	yes	yes
physical measuring principle	microwave	microwave	microwave
number of pins	4	4	4
voltage drop	2V	2V	2V
reverse polarity protection	yes	yes	yes
MECHANICAL DATA			
process connection	G ¾"	G ¾"	G ¾"
pressure resistance	10bar	10bar	10bar
probe length	300mm	500mm	800mm
temperature of medium	0 ... 80°C	0 ... 80°C	0 ... 80°C
ambient temperature	0 ... 70°C	0 ... 70°C	0 ... 70°C
housing material	aluminum	aluminum	aluminum
sensing element material	stainless steel 1.4571	stainless steel 1.4571	stainless steel 1.4571
degree of protection (IP)	IP67	IP67	IP67

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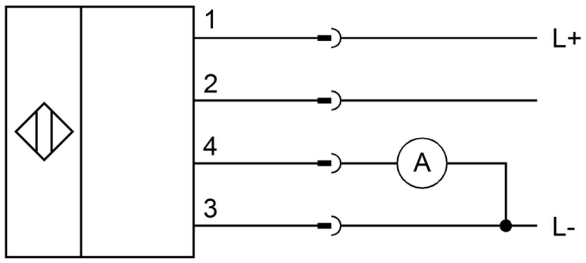
connection



colors:

1= BN (brown), 2= WH (white), 3= BU (blue), 4= BK (black)

functions:

1= L+, 2= n.c., 3= L-, 4= 4-20mA

NOTES

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