

# FUS10

## Ultrasonic Level Switch

- for liquids
- robust design in plastic housing
- switching ranges from 60...500 to 600...6000 mm
- 2 NPN or PNP contacts, programmable via TEACH-IN procedure
- supply 12...30 VDC
- max. pressure: atmospheric
- max. temperature: 70 °C



### Description:

The ultrasonic level switch FUS10 monitors the distance of a liquid level to the transmitter surface of the sensor by measuring the transit time of an ultrasonic signal. With the help of two programmable transistor switching outputs, MIN or MAX limit values can be signalled or pump controls implemented.

Up to a maximum switching range of 2 m, the devices are supplied in an easy-to-install M18 housing including two counter nuts. For the switching range up to 3.5 m, an M30 housing is used.

The sensor with 6 m switching range has a housing with square flange and extra large transmission area.

### Typical applications:

The ultrasonic level switches FUS10 can be used wherever liquid levels in pressureless containers have to be monitored or controlled.

## Models:

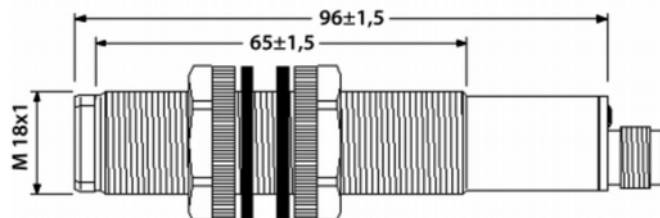
- FUS10...S:** electrical connection:  
M12 x 1 industrial plug
- FUS10...K:** with cable connection

## Switching Ranges:

Type	Switching range	Switching frequency	Protection class
FUS10.K.05...	60...500 mm	5 s	IP67
FUS10.K.08...	100...800 mm	5 s	IP67
FUS10.K.20...	200...2000 mm	2 s	IP67
FUS10.K.35...	350...3500 mm	1 s	IP67
FUS10.K.60...	600...6000 mm	0,5 s	IP65

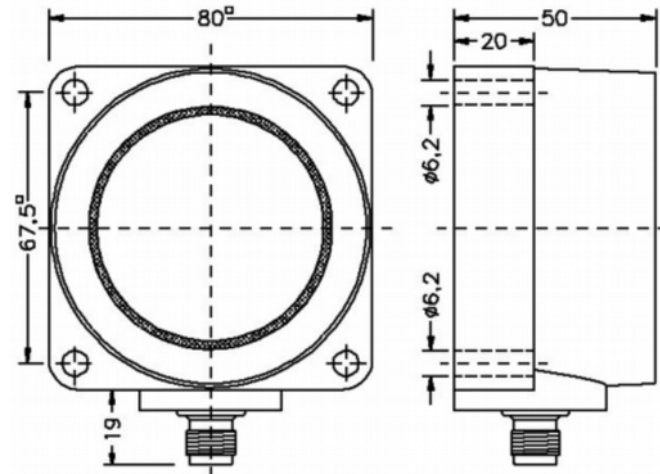
## Dimensions:

### FUS10.K.5... to FUS10.K.20...



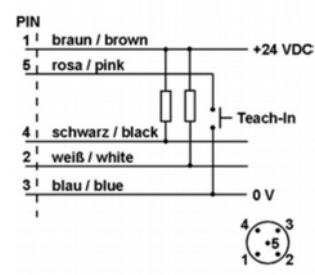
FUS10.K.35: enclosure M30 x 1.5, length 125 mm

### FUS10.K.60...

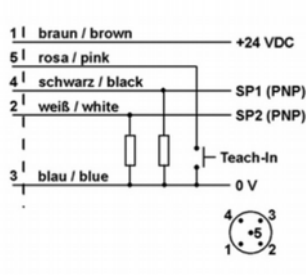


## Electrical Connection:

### NPN (FUS10...N...)



### PNP (FUS10...P...)



## Order Code:

Order number: **FUS10.K.20.P.S.0**

Ultrasonic level switch

### Material:

K = housing made of plastic  
S = special version

### Switching ranges:

05 = 60...500 mm  
08 = 100...800 mm  
20 = 200...2000 mm  
35 = 350...3500 mm  
60 = 600...6000 mm

### Switching function:

P = 2 x PNP  
N = 2 x NPN

### Electrical connection:

S = plug M12 x 1, 5-pole  
K = cable, 5-wire, 2 m (not for FUS10.K.60)

### Options:

0 = without  
9 = please specify in plain text

## Accessory:

### SM12.5:

M12 connector plug with PVC cable, 5-pole (2, 5, 10 m cable length, straight or angled form)



## Technical Data:

### Materials:

housing made of PET / PBT,  
transducers made of glass / ceramics,  
epoxy resin potting compound

### Power supply:

12 to 30 VDC

### Electrical connection:

plug M12 x 1 or 2 m cable

### Process connection:

**FUS10.K.05...20:** thread M18 incl. 2 counter nuts  
**FUS10.K.35:** thread M30 incl. 2 counter nuts  
**FUS10.K.60:** 4-hole square flange  
67,5 x 67,5 mm

### Outputs:

2 x NPN or PNP switching output

### Switching hysteresis:

1 %

### Display:

3 LED, Echo, switching points P1, P2

### Repeatability:

**FUS10.K.05...35:** ± 0,2% ± 1 mm  
**FUS10.K.60:** ± 0,2% ± 2 mm

### Max. pressure:

atmospheric

### Medium temperature-range:

-15...+70 °C, compensated