



## Alfa Laval Potentiometric Level Transmitter

The Level Transmitter for hygienic use in smaller tanks

### Application

Fast continuous level control, to maintain level regulation in tanks, where levels can change quickly.

### Features

The Alfa Laval potentiometric level transmitter is designed to fulfil the demands in hygienic and pharmaceutical production. The main features are:

- Wetted parts in AISI316L, stainless steel and PEEK
- Compact, and hygienic design
- Process temperature -20 to 140°C
- Defined empty registration
- Local Led monitor in fieldhousing
- Insensitive to adhesive media
- Analogue output 4-20 mA

### Standard range

The Alfa Laval potentiometric level transmitter is ideal for measurements in small vessels with tough, pasty or strong adhesive media, such as ketchup, honey, and toothpaste. The integrated electronics provide a 4-20 mA output signal and has incorporated automatic recognition of top or bottom mounting position. Even angled installation is possible. Due to the high temperature limit the Alfa Laval potentiometric level transmitter is well suitable for CIP and SIP processes.

### TECHNICAL DATA

Accuracy: . . . . .  $\pm 0.5\%$  of FS  
Resolution, input: . . . . . 15 bit  
Repeatability: . . . . . 0.1% of FS  
Media conductivity: . . . . . Min 50  $\mu\text{S}/\text{cm}$

Protection class: . . . . . IP67  
Max media pressure: . . . . . 16 bar

### Electrical data

Power supply: . . . . . 18-36 Vdc  
Power consumption max: . . . . . 200 mA  
Output: . . . . . 4-20 mA, max. 500 Ohm,  
Connection: . . . . . M12 plug or M16 cable gland  
Response time: . . . . . 10 ms

### Important

Please observe that a non-linear conductivity in the media will affect the accuracy of the measurement. If mounted in a non-conductive tank such as a plastic tank a reference rod must be installed.

### Certificates

3.1 certificate (option)



### PHYSICAL DATA

Sensor length (L): . . . . . 0 to 300 cm

### Materials

Surface roughness . . . . .  $R_a < 0.8 \mu\text{m}$   
Wetted parts . . . . . ( $R_a < 0.4 \mu\text{m}$  as an option)  
Wetted parts: . . . . . AISI 316L  
Fieldhouse: . . . . . AISI 304

### Operating temperature

Wetted parts: . . . . . -20 to 140°C  
Fieldhousing: . . . . . -20 to 60 °C

### Weight

Sensor: . . . . . Approx. 1500 gr.

### Process connection

- Clamp DN50 (ISO2852) / Clamp DN51 (DIN32676)
- G1" (ISO228)
- DN32 (DIN11851)
- DN40 (DIN11851)
- DN50 (DIN11851)
- Unique Flexbody type N



### Working principle

The Alfa Laval potentiometric level transmitter utilizes the potentiometric measurement principle and can be used in all medias that have a minimum conductivity of 50  $\mu\text{S}/\text{cm}$ . From the low resistive measuring rod a high frequent current is fed through the medium to the tank wall. The voltage between the rod and the tank wall is measured. This output voltage is proportional to the tank filling level. The measurement is unaffected by temperature and adhesive media.

### Layout of LED's and push buttons in fieldhousing



Push buttons > 3 sec.  
To set 0 %



Set point  
100 %, 20 mA

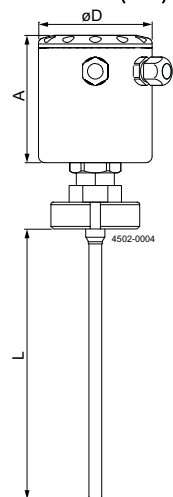


Set point  
0 %, 4 mA

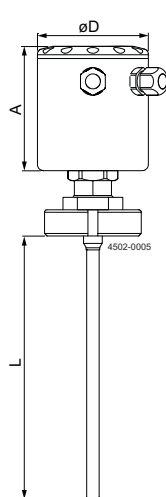
LED

Buttons

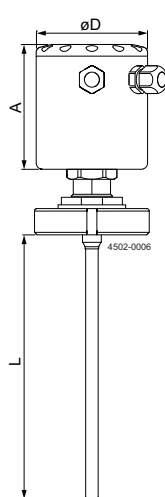
### Dimension (mm)



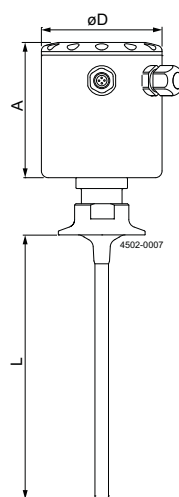
TE67HxAxxxxxx  
DN32 (DIN11851)



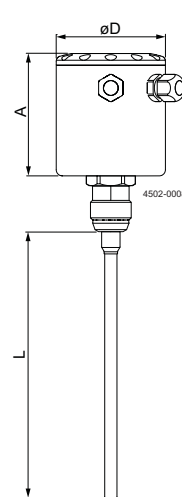
TE67HBxxxxxx  
DN40 (DIN11851)



TE67HCxxxxxx  
DN50 (DIN11851)



TE67Hx2xxxxxx  
Clamp DN50 (ISO2852) /  
Clamp DN51 (DIN32676)



TE67Hx6xxxxxx  
G1" (ISO228)

A	D
100	89

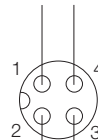
### Electrical data

The integrated electronics features as standard automatic top or bottom mounting recognition, and LED's for local readout of level. Adjustment of measuring range is done via two push buttons and LED's in field housing.

### Electrical connections

#### M12 plug

18-36 Vdc(+) (+) 4-20 mA

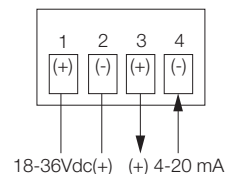


4-20 mA (-) (-) 18-36 Vdc

#### Electrical connection M16

cable gland

- 1: Brown
- 2: White
- 3: Blue
- 4: Black



Alfa Laval reserves the right to change specifications without prior notification.

### How to contact Alfa Laval

Contact details for all countries are continually updated on our website. Please visit [www.alfalaval.com](http://www.alfalaval.com) to access the information direct.