

# Flow meter

## Insertion version with flange

### Model FLC-2770

WIKA data sheet FL 20.10

#### Applications

- Water management
- Data acquisition and analysis
- District measurements

#### Special features

- No interference with flow due to low insertion depth
- For pipe diameters of up to 2,000 mm



Model FLC-2770

#### Description

The model FLC-2770 insertion flow meter version is a cost-effective and reliable solution for flow measurement. It is available in different lengths in order that it can be matched to different pipe diameters, thus offering a wide range of applications. Liquids with an electric conductivity of at least 5  $\mu\text{s/cm}$  can be measured.

The measuring instrument must be mounted on an empty pipe at a 90° angle to the flow. The insertion depth is 1/8 of the diameter of the flow tube.

A WIKA signal converter, either attached directly to the instrument or separated from it (e.g. model FLC-608), detects the potential difference between the electrodes, processes the signal to calculate the flow and manages communication with the external control systems.

## Specifications

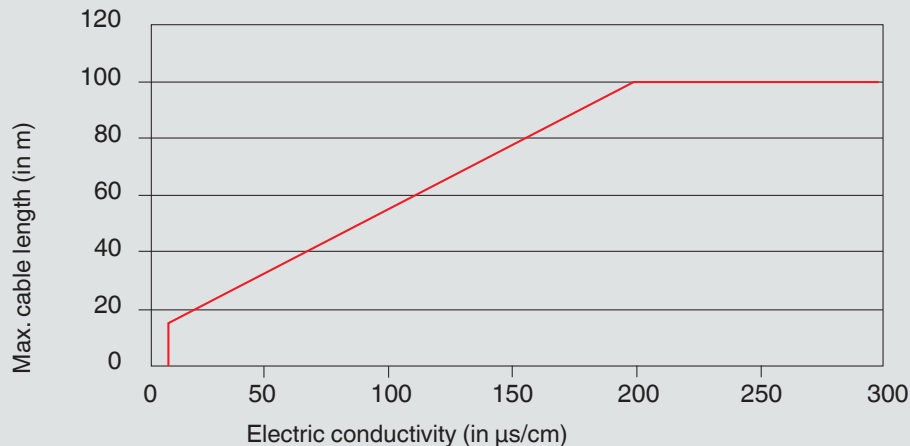
Specifications	
Available pipe diameters	80 ... 2,000 mm
Operating pressure	≤ 25 bar
Medium temperature	<ul style="list-style-type: none"> <li>■ -40 ... +80 °C [-40 ... +176 °F] for separated version</li> <li>■ -40 ... +60 °C [-40 ... +140 °F] for compact version</li> </ul>
Materials	
Pipe end	SS304
Sensor housing	SS304
Flange	Carbon steel, SS304
Junction box	Polyoxymethylene
Electrodes	316L
Ingress protection per EN 60529	IP68 (continuous immersion to 1.5 m)
Compatible signal converters	<ul style="list-style-type: none"> <li>■ Model FLC-608</li> <li>■ Model FLC-406</li> </ul>
Electrical connection	Cable gland M20 x 1.5, terminal block and sealing resin

### Calibration and maximum measuring deviation

The model FLC-2770 sensors belong to reference group B1 (per ISO 11631). Each sensor is wet-calibrated on a hydraulic test bench which is fitted with a reference weighting system and is SIT-certified. With correct installation, the measurement accuracy is 3 % of the measured value at a flow velocity of more than 0.3 m/s.

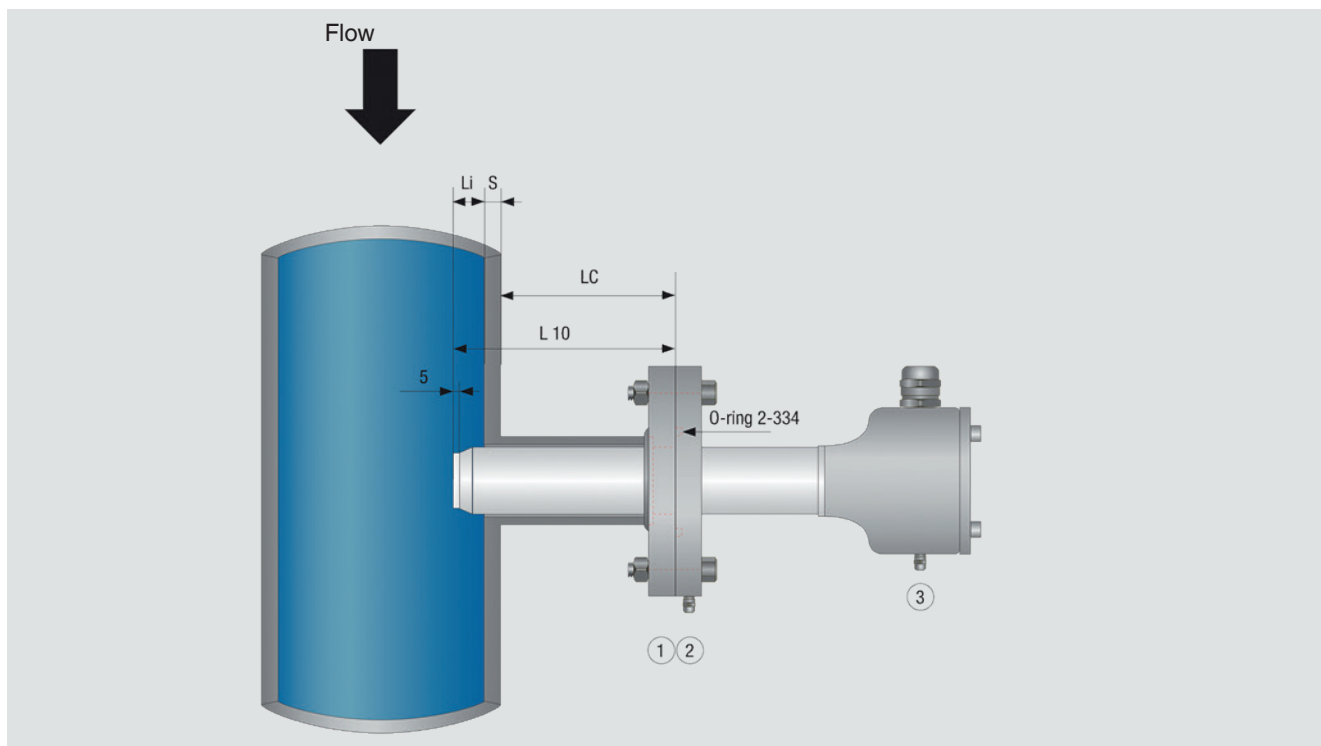
### Integration of the flow meter

The model FLC-2770 sensors can be combined with all WIKA signal converters. In the compact version, the signal converter is mounted directly on the junction box. In the separated version, the sensor is connected with the signal converter via two cables, whose length depends on the electric conductivity of the liquid. The maximum length of the cable is 100 m (see figure).



## Dimensions in mm

Version	Max. diameter of the flow tube	Dimension Ltot	Dimension L10
A	500	199	125
B	1,000	269	190
C	1,600	348	265
D	2,000	414	335



### Legend:

- 1 Flange, UNI 6084, DN 40, PN 40, carbon steel
- 2 Flange, UNI 2278, DN 40, PN16, SS304
- 3 Junction box
- LC Length of the fixing device
- Li Insertion depth =  $(De - 2S) / 8$

## Approvals

Logo	Description	Country
CE	<b>EU declaration of conformity</b>	European Union
	EMC directive	
	EN 61326 emission (group 1, class B) and immunity (industrial application)	
	Low voltage directive	

Approvals and certificates, see website

© 07/2021 WIKA Alexander Wiegand SE & Co. KG, all rights reserved.  
The specifications given in this document represent the state of engineering at the time of publishing.  
We reserve the right to make modifications to the specifications and materials.



**WIKA Alexander Wiegand SE & Co. KG**  
Alexander-Wiegand-Straße 30  
63911 Klingenberg/Germany  
Tel. +49 9372 132-0  
Fax +49 9372 132-406  
info@wika.de  
www.wika.de