

General data



TM077248

Grundfos level transmitters are designed and manufactured for measuring liquid levels up to 160 metres. The following three variants are available:

- Type S (standard) is suitable for wastewater, drinking water and other applications requiring hydrostatic level measurement. It features superior performance, electrical robustness and dedicated, optimised configurations.
- Type E (endurance) is the preferred choice for level measurements requiring more than 50 metres measuring range. It provides superior performance with electrical robustness and is designed for durability. It ensures protection up to 1000 A for safe use in outdoor applications where risks of lightning overvoltage exist (EN 61000-4-5; 1 kA). It is targeted especially towards deep drinking-water wells.
- Type W (wastewater) is suitable for difficult level measurements of wastewater and harsh chemicals, requiring less than 50 metres measuring range. It ensures protection up to 1000 A for safe use in outdoor applications where risks of lightning overvoltage exist (EN 61000-4-5; 1 kA). It features superior performance in resisting grease build-up and enables longer service intervals.

Application

Grundfos level transmitters provide a level reading in a wide variety of applications. They provide long-term solutions in liquid level measuring in applications such as water utility, industry and rainwater tanks.

A submersible pressure sensor is equipped with a pressure diaphragm where the internal part is exposed to atmospheric pressure through a vent tube in the cable. The outer side of the diaphragm is exposed to the liquid and measures the static pressure on the volume area above the pressure sensor. Static pressure is caused by the amount of liquid on top of the sensor and it is being used to calculate the level of the liquid.

Hydrostatic level transmitter probes from Grundfos ensure high performance and a broad coverage of market needs.

Features and benefits

Grundfos level transmitters offer the following features and benefits:

- water level detection
- simple installation
- compact design
- superior performance with electrical robustness
- dedicated, optimised configurations for water/pressure inlet.

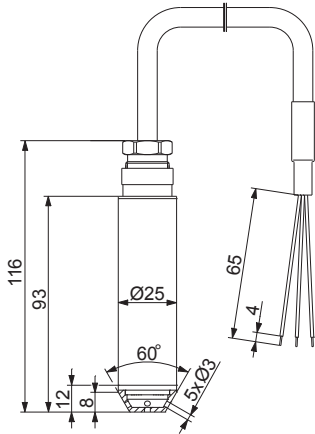
Specifications

Description	Type S	Type E	Type W
Measuring range	0-50 m of water (0-150 ft) of water	0-160 m of water (0-480 ft) of water	0-5 m of water (0-15 ft) of water, IP68
Cable length	5-50 m (15-150 ft)	25-600 m (16-1968 ft)	25 m (75 ft)
Analog output	4-20 mA, two-wire		
Power supply	DC 10-30 V		DC 12-30 V
Weight	90 g (0.19 lb) + weight of cable	400 g (0.88 lb) + weight of cable	200 g (0.44 lb) + weight of cable
Membrane material	Stainless steel 316L	Stainless steel 316L	Ceramic Al ₂ O ₃ (99.9 %)
Seals	FPM, standard	FPM, standard	FPM, standard
Case	Standard stainless steel 316 Ti, diameter 25 mm (1")	Standard stainless steel 316 Ti, diameter 25 mm (1")	Standard stainless steel 316 Ti, diameter 41 mm (1.61")
Cable material	PE-LD (P)		
Operating temperature	-20 to +80 °C (-4 to +176 °F)	0 to 80 °C (32 to 176 °F)	-20 to +50 °C (-4 to +120 °F)
Hydraulic port configuration	BO: bottom open for wastewater BC: bottom closed for clean water		BO: bottom open for wastewater
Measurement accuracy	Under 10 m water head and above 60 °C (140 °F) = 2.9 % In all other conditions = 1.5 %		Under 5 m water head and above 60 °C (140 °F) = 2.9 % In all other conditions = 1.5 %

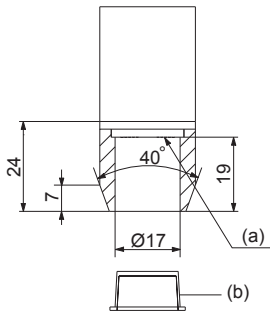
For more information, see Grundfos Product Center (<http://product-selection.grundfos.com/>).

Dimensions

Type S



General dimensions.

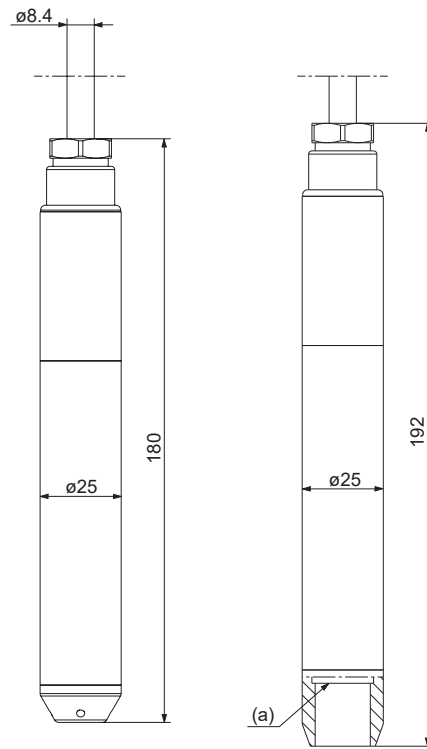


Position "a" is the sensitive membrane. Position "b" is the protective cap.

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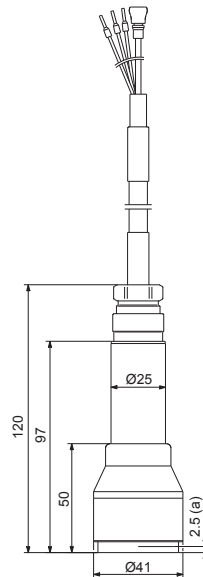
Type E



Bottom closed (BC, left) and Bottom open (BO, right). Position "a" is the sensitive membrane.

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Type W



Position "a" is the measurement to the surface of the sensor.

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