

Pressure Probe type 655W2

Water level and temperature measurement in wells, borholes and tanks

■ Particular advantages

- Unique accuracy of < 0.1 % FS of the whole temperature range from 0 °C to +50 °C
- Probe housing made of stainless steel 316 Ti for operation in fresh water, waste water and also in contaminated fluids
- Measuring cell made of Titan
- Maintenance free
- Integrated excess voltage protection
- Compensation of the barometric fluctuation
- Accessories like lightning protection fuse, wall housing, display and filter for the barometric fluctuation guarantees a total solution from HT



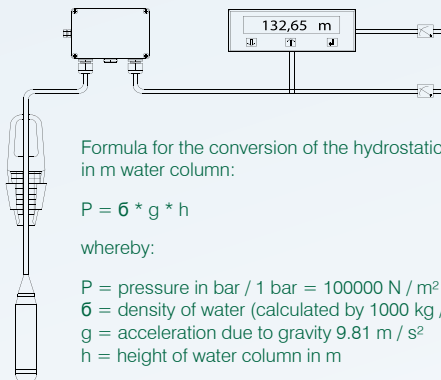
• Pressure Probe type 655W2

Fields of application

The Pressure Probe type 655W2 measures the hydrostatic pressure and is employed mainly in wells, boreholes and tanks. It is suitable for the usage in fresh-, waste-, sea- and contaminated water. Optionally the Pressure Probe can be also equipped for temperature measurements in fluids. The international industry standard-signal 4...20 milliamps guarantees wide applications for control and process stations.

Functionality

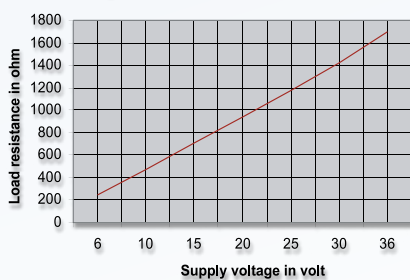
The Pressure Probe type 655W2 is inserted into fluids, mainly in fresh or waste water and measures the hydrostatic pressure above the Pressure Probe. The measured pressure is converted internally by a micro processor into m water column. The barometric fluctuation is compensated by a vented cable. The absorption of the barometric pressure is directly at the rear of the measuring cell. The output signal is linear to the water column above the Pressure Probe. The signal can be used for telemetry, for connection to process systems, for connecting at displays or writer and for the controlling of other facilities like pumps or in programmable controlling stations.



Temperature measurement

The Pressure Probe type 655W2 is optionally able to measure the temperature. The temperature sensor is next to the measuring cell. Thereby the process reaction rate is short and quick fluctuations of temperature can be recorded precisely in realtime. The separate output signal for temperature is 4...20 milliamps.

Diagram to determine the max. load resistance



Technical Data

Electrical Data:

Supply voltage	6...36 V DC
Output signal	4...20 milliamps / 2- wire
Load Resistance (Diagram)	The load resistance of the Pressure Probe type 655W2 is proportionally dependent on the power supply. The load resistance increases linearly to a rising power supply

Mechanical Data:

Dimensions	Ø 22 mm x 140 mm
Weight	290 g
Material housing	Stainless steel 316 Ti
Seals	Viton, special encapsulated electronic part

Water level:

Measuring range	selectable from 1 m to 300 m water column Calibration standard: m water column Special calibration: bar
Accuracy	< 0.1 % FS over the whole temperature range of 0...+50 °C
Long term stability	< 0.1 % FS / year
Temperature compensation	0 °C to +50 °C

Temperature:

Measuring range	0 °C to +50 °C
Accuracy	0...+50 °C / standard inquire for special temperature range
Long term stability	durable stable, maintenance free

Measuring cell:

Principle of measurement	piezo-resistive
Material	stainless steel 316 Ti; Measuring membrane made of Titan
Overload	<ul style="list-style-type: none"> to measuring range 100m: max. 4- fold FS Stability to 2- fold FS Stability to 2- fold FS from measuring range 100 m: max. 2- fold FS Stability to 1.5- fold FS
Temperature sensor	next to the measuring cell

Vented cable:

Diameter	Ø 6 mm
Design	PUR coated, kevlar strengthen against stretching; Vented cable for the compensation of the barometric fluctuation
Resistance	UV- resistant, suitable for the operation in contaminated fluids. For the resistance in special chemical fluids we can prepare an analysis of suitability
Cable resistance	max. 140 ohm per km and per wire

Environmental conditions:

Electromagnetic compatibility	Interference emission to EN 61326. Equipment class B. Interference immunity to EN 61326. Appendix A (industrial usage)
Operation temperature	0...+50 °C (inquire for a wider range)
Storage temperature	-20...+70 °C If the storage temperature is below 0 °C, the Pressure Probe needs to be protected against freezing
Protection category	IP 68, permanently seal until at least 50 bars

Changes in performance features and technical data are permitted.

