

# **Deep-Well Probes**



measuring

monitoring

analysing





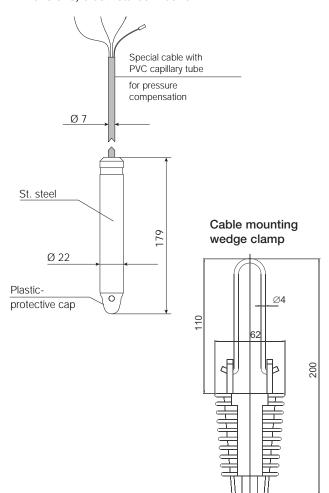
#### Description

The immersion probe comprises a measuring cell, two-wire transmitter and a special cable with capillary tube. The housing comprises stainless steel with a pressure-sensitive diaphragm that is protected with a plastic cap. The level signal is determined by the pressure difference between the water column over the probe and atmospheric pressure which is transferred to the probe through the capillary tube. This differential pressure is converted to a 4 to 20 mA analoque signal by the piezo-resistive cell and the fitted electronics.

### Application

The NTB deep-well probe is used for hydrostatic level measuring in wells, reservoirs, clarification plants and other vessels. Due to its small physical size, it is very easy to install and is ideally suited for protecting submersible pumps in deep wells.

## Dimensions, electrical connection



Accessories Model	Order no.
Overvoltage protection Field mounting	NTB-OVP12
Overvoltage Rail mounting	NTB-OVP32
Cable mounting wedge clamp	NTB-NAA209

## **Technical Details**

#### Hydrostatic sensor

Measuring range:

0 to 200 m water column NTB-1

Material/wetted parts

Sensor: stainless steel 1.4404 Probe: stainless steel 1.4571

Cable: polyurethane

Sealing: **FPM ABS** Cup:

Overload capacity: 3 x measuring range Output signal: 4 to 20 mA. 2-wire

Linearity: ± 0.25%

Effects of ambient

temperature:  $\pm 0.1 \% / 10 K$ Auxiliary power: 12...30 V<sub>DC</sub>

 $R_{min} = \frac{U_t - 12 \text{ V}}{0.02 \text{ A}} \Omega, U_t = \text{auxiliary power}$ Load:

Protection: Operating temperature: -10°C...+60°C Dimensions of probe: Ø 22 x 179 mm wire cross-section: 0.34 mm<sup>2</sup>

Cable length: up to 300 m (see order details)

Overvoltage protection

NTB-OVP12: field mounting NTB-OVP32: rail DIN 46277-3

Maximum voltage (peak value) Slow: aa V 00 Fast: aq V 08 Series resistor:  $13 \Omega \pm 10\%$ Pulse power: 600 W/1 ms IP 54 (NTB-OVP 12) Protection: IP 20 (NTB-OVP 32)

Order Details (Example: NTB-1301 01)

Deep-well probe		
Meas. range	Order no.	Cable length
1 mWs	NTB-1301	
2 mWs	NTB-1302	
5 mWs	NTB-1305	<b>01</b> = 1 m
10 mWs	NTB-1310	<b> 10</b> = 10 m
20 mWs	NTB-1320	<b>3H</b> = 300 m
50 mWs	NTB-1350	YY = other
100 mWs	NTB-131H	
200 mWs	NTB-132H	
other	NTB-13YY	