



## Deep-Well Probes



measuring  
•  
monitoring  
•  
analysing



- Measuring range:  
0 - 1 to 0 - 200 m water column
- Linearity:  
 $\pm 0.25\%$
- Material: stainless steel,  
polyurethane (cable)
- Reliable
- Compact
- Dirt resistant



N2



Contact:  
Industrial Process Measurement, Inc.  
3910 Park Avenue, Unit 7  
Edison, NJ 08820  
732-632-6400  
support@instrumentation2000.com  
<http://www.instrumentation2000.com>

Model:  
NTB



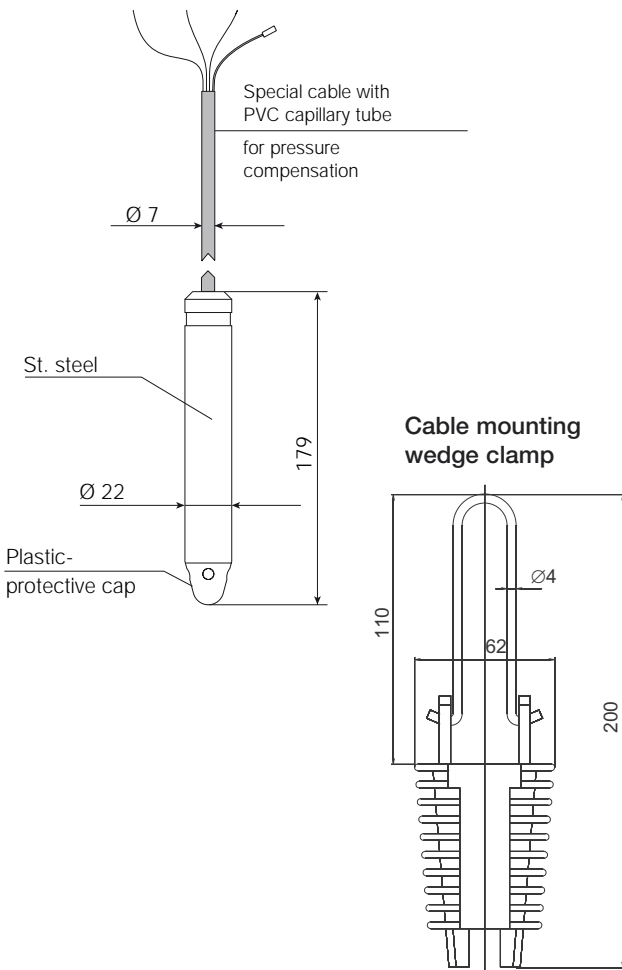
**Description**

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 analogue 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: NTB-1 0 to 200 m water column
- Material/wetted parts
  - Sensor: stainless steel 1.4404
  - Probe: stainless steel 1.4571
  - Cable: polyurethane
  - Sealing: FPM
  - Cup: ABS
- Overload capacity: 3 x measuring range
- Output signal: 4 to 20 mA, 2-wire
- Linearity: ± 0.25 %
- Effects of ambient temperature: ± 0.1 % / 10 K
- Auxiliary power: 12...30 V<sub>DC</sub>
- Load:  $R_{min} = \frac{U_t - 12 V}{0.02 A} \Omega$ , U<sub>t</sub>=auxiliary power
- Protection: IP 68
- 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: 90 V pp
  - Fast: 30 V pp
- Series resistor: 13 Ω ± 10 %
- Pulse power: 600 W / 1 ms
- Protection: IP 54 (NTB-OVP 12)  
IP 20 (NTB-OVP 32)

**Order Details** (Example: NTB-1301 01)

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