

# Piezometer PLM

The piezometer (or pressure hydrometer) performs the same functions of the ultrasonic or radar hydrometer, but employing a different technology that makes it particularly suited for specific applications.

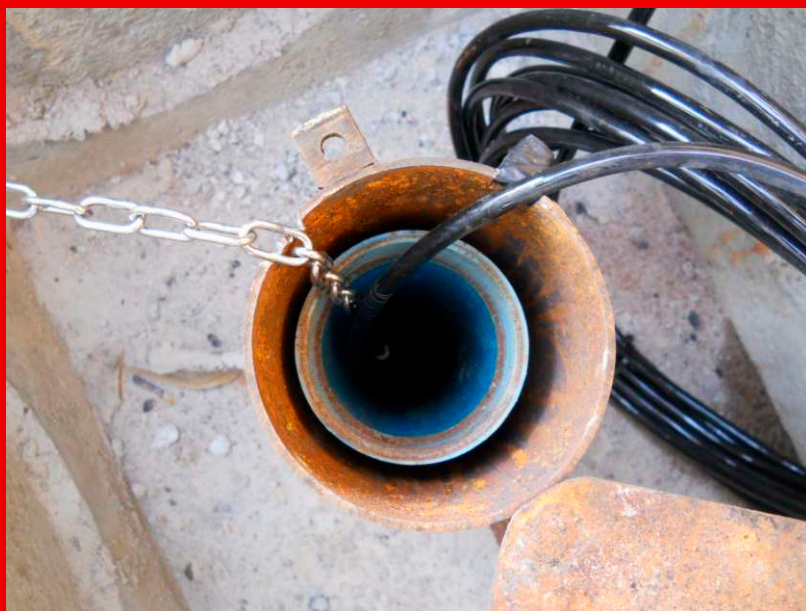
Usually the piezometer is used to monitor the level of underground water flows, connected to hydro geological risks like landslides and landslips.

The sensor, fully electronic, detects the level of the liquid body in which is immersed, measuring the differential pressure. This is done by subtracting the air column's pressure to the total pressure, thus obtaining the exact measurement of the fluid pressure.

## TECNOLOGY AND FUNCTIONING

The sensor uses the technology of the diffused silicon diaphragm. At the solicitation derived from the fluid pressure, the sensor responds with an electric signal which is decoded and translated in a depth measurement by the acquisition unit.

Working underwater, the sensor is subject to a number of usury factors. For this reason, an accurate designing is fundamental to assure the quality level that is peculiar of all CAE's manufactured instruments.



The use of inalterable materials, the water and air tight, the galvanic insulation and the kevlar anchorage resistant to traction by dense fluids, permit its usage both in clear and muddy waters and guarantee its resistance to salinity and solid-transport, for the best results both in civil and industrial applications.

## TECHNICAL SPECIFICATIONS

- Measurement range: 0 ÷ 2m, 0 ÷ 10m, 0 ÷ 20m, 0 ÷ 40m depending on the type of sensor used
- Temperature range: 0°C ÷ +40°C
- Electric output: 4 ÷ 20 mA
- Power: 8 ÷ 28 VDC
- Maximum distance from the acquisition unit: 300 m
- Time stability: +1 cm per year
- Accuracy: ± 0.2% full scale
- Cable length: standard 5 m (different lengths shall be specified at the order).



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