

Impressions of ETROMETA

stepgauge installations



Summary of the key features of the stepgauge:

- Combined wave- and waterlevel measurement.
- Measurement based on difference in electrical conductivity between air and water.
- Based on distinct measurements instead of incremental values - robust concept.
- Measures the actual waterlevel – direct sensing.
- High sample rate up to 10,24Hz, standard 2,56 Hz.
- Suitable for measurement of all waves with $T > 0,5s$.
- Small, constant footprint all along the measurement range.
- Clear distinction between green and white water.
- Uninfluenced by temperature, humidity or rain.
- Measuring accuracy of the waterlevel $\pm 5mm$ from $H_s > 50$ mm.
- No recalibration required, no zero-drift.



- No moving parts, no electrical underwater connections thanks to inductive couplings.
- Extreme low power consumption, very suitable for remote locations and long unattended operation.
- Easy transport and mounting in sections of 3m, measuring range up to 21 m.
- Simple maintenance (brush cleaning once a year recommended); no other need for visits to the installation.
- Total system supply including dedicated mounting supports and webbased monitoring software based on highest hydrographical standards.
- System can be extended with dedicated wind- and atmospheric pressure sensors.
- Telemetry solutions by phone or radio.
- High reliability and long lifetime.
- Long established trackrecord.



Area's of application:

- harbour accessibility (tide and waves)
- flood warning/coastal defence
- wave modelling/environmental research

References:

- Rijkswaterstaat (NL)
- Taihu Basin Authority (China)
- Channel Coast Observatory (UK)
- ANP Mohammedia and El Jorf (Maroc)
- Maersk (DK)

