HYDROMAST

water flow and level measurement device



affordable precision inspired by nature

Specifications

Velocity range determined by the lenght of the mast:

100mm: $0.6 - 1.7(\pm 0.1)$ m/s 300mm: $0.15 - 1.0(\pm 0.1)$ m/s 500mm: $0.07 - 0.5(\pm 0.1)$ m/s

 $0 - 360^{\circ} \pm 12^{\circ}$ Directionality Water level: 0 – 20m or 200m ± 0.25 % FS

Temperature: -4°C - 40°C±1°C Temporal resolution: 2 Hz

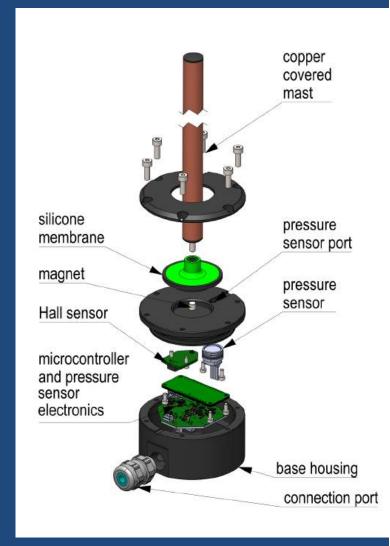
Materials

Casing is manufactured from industrial POM plastic for maximum robustness

Biofouling proof Cu covered resilient polycarbonate sensing probe

Durable silione membrane for both fresh water and salt water applications

Hydromast overview





biorobotics@taltech.ee





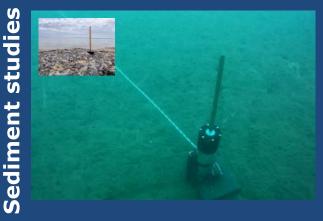
Application possibilities















Features

Connect and measure - a quick start for your applications

Onboard software with modifiable output format and rate (possible to stream also raw data for research purposes)

Connection through serial RS485 protocol with up to 500m long cables

Possible to connect online with a add-on communication module through GSM, LoRa or Ethernet

Possible configurations:

- multi sensor deployment for extended velocity ranges
- add on battery pack for long offline deployments (up to a one full year with 30 minute interval in a 4 hour window)
- profiling horisontal or vertical water column with a sensor grid synchronized through communication hub