

Instrument

Profile indicator PV09X

The profile indicator instrument has been developed for measuring the bed level of a model setup. The probe on the bottom of the drive shaft measures the conductivity of its surroundings. The measured conductivity changes corresponding to the distance of the probe to the bed. Based on the measured value the probe is continuously positioned at a fixed distance over the bed level. The distance between the probe and the bed can be adjusted. The position of the sensor is available through an analogue output signal.

Applications

Common applications for the profile indicator are:

- bed level contour mapping
- measurement of local scour and erosion in hydraulic models
- studies in bed load transport
- continuous measurement of bed levels

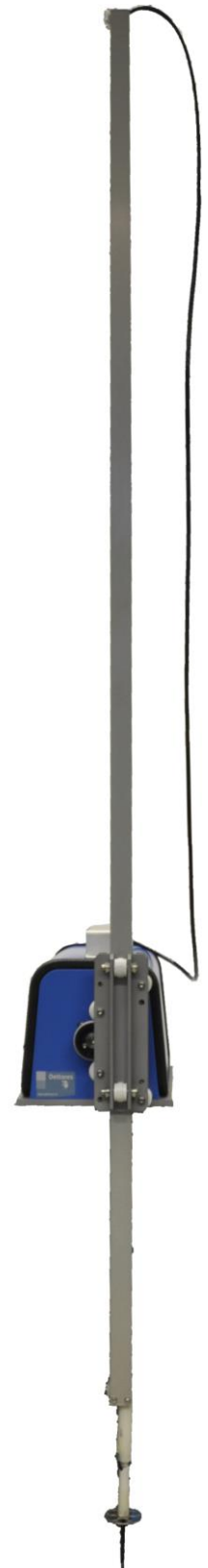
Features

- high resolution sensor
- wide range of bed material properties acceptable
- high dynamic characteristics
- applicable in water with lightweight nonconductive materials



Technical specifications

Maximum depth to be measured (other depths optional)	1350 + 250 mm
Minimum water depth	150 mm
Stroke	1350 mm
Maximum vertical gauge speed	400 mm/s
Distance from bed to probe tip (adjustable)	2.5 – 4 mm
Minimum detectable bed level variation	0.2 mm
Conductivity range	0.05 – 1 mS/cm
Power supply	36 VDC / 4 A
Weight	8.3 kg (excl. power adapter)
Size	285 x 180 x 160 mm (length x width x height)
Output range	-10 – +3 V
Calibration	0.1 V/cm
Resolution	0.01% of full scale
Linearity	0.1% of full scale



Front view



Probe



Rear view: control panel

More information:

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