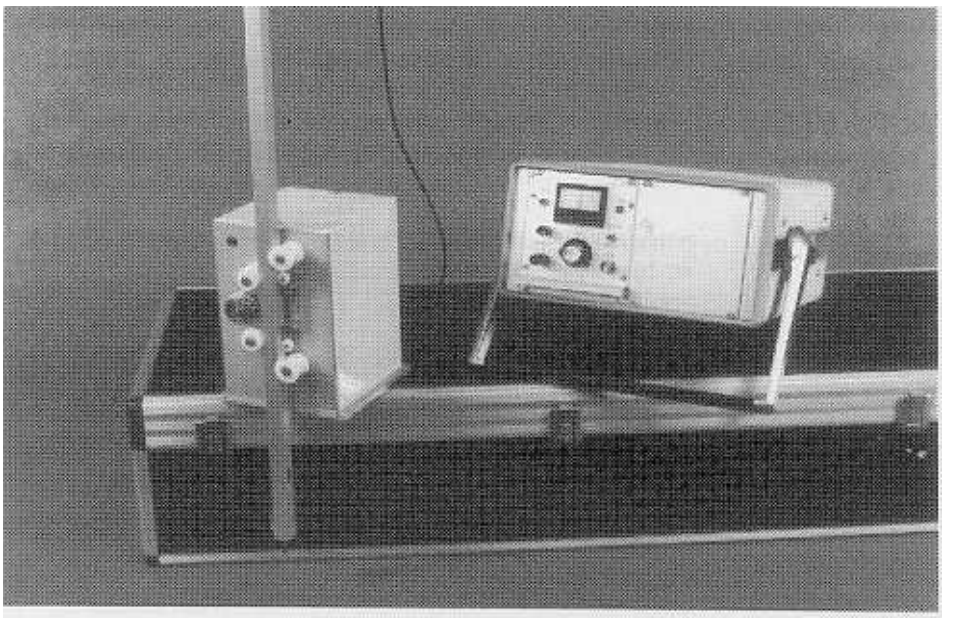
instruments

PV-II amphibious profile indicator, an accurate bed level transmitter



applications
- bed level contour mapping
- local scour and erosion in hydraulic models
- studies in bed load transport
- continuous measurement of bed levels
- applicable in water and over dry beds.

features
- continuous track of wet and dry beds
- up to 0.2 m/s tracking speed
- wide range of bed material properties acceptable
- high dynamic characteristics
- visual position indicator
- easily accessible electronics.

options
- longer drive shaft
- special cable lengths
- remote control
- advice / supply of mobile installation.

description
The probe is continuously positioned at a fixed, but adjustable wheel force over the bed level by a servo-controlled bridge balance circuit. A vertical position transducer, coupled to the servo output-shaft supplies an analogue output signal.

remote control
Though full instrument control is already incorporated in the transmitter, a Remote Control Unit (PCU) is available as an option. This unit provides full control of all transmitter functions and the required power supply from a central control room (distance up to 100 m).

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tools

With each instrument a standard set of tools and clamps for appropriate installation of the instrument and/or its spare parts is supplied. Also cleaning and lubrication materials are included.

A ruler, with adjustable pointer, is engraved on the driving shaft, providing easy assistance for installation and calibration.

specifications

system

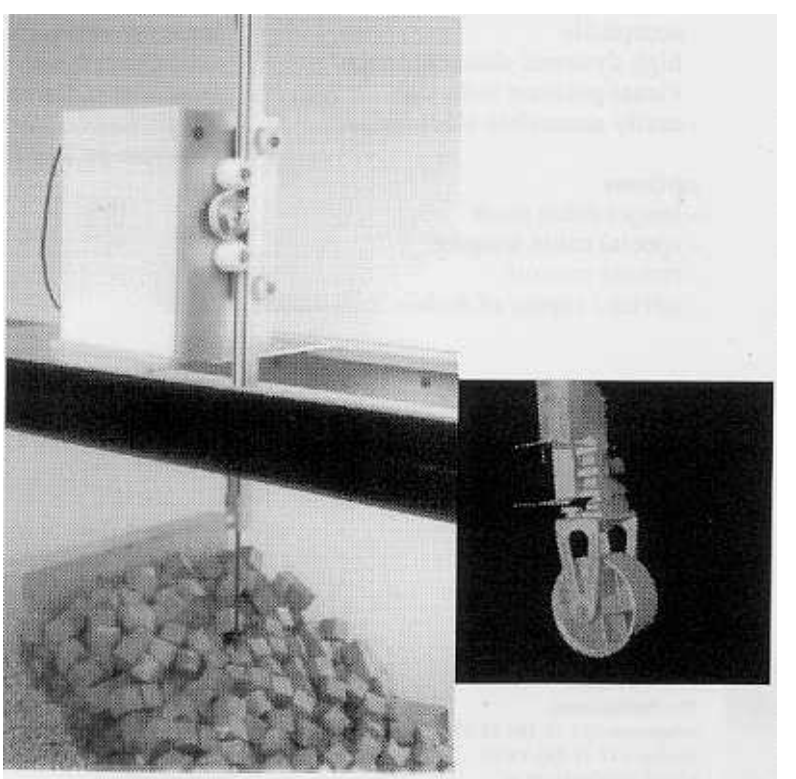
sensitivity	- 0.2 mm
tracking speed	- up to 0.2 m/s (depending on bed material)
tracking mode range	- 0.85 m
depth	- maximum 1.08 m (other ranges optional)
output	- + 0.5 - 9.5 VDC
calibration	- 10 V/m
linearity	- 0.1 % of full scale
power	- 24 VAC $^{+}$/- 15%, 50/60 Hz, 2 A max
dimensions	- 190 x 135 x 195 mm (l x w x h)
weight	- 3.7 kg

sensor

dimensions wheel	- Ø 40 mm, (standard) width 20 mm
wheel force	- 40 grammes
bed material	- ρ >1400 kg/m^3
slope	- max. 60 degrees

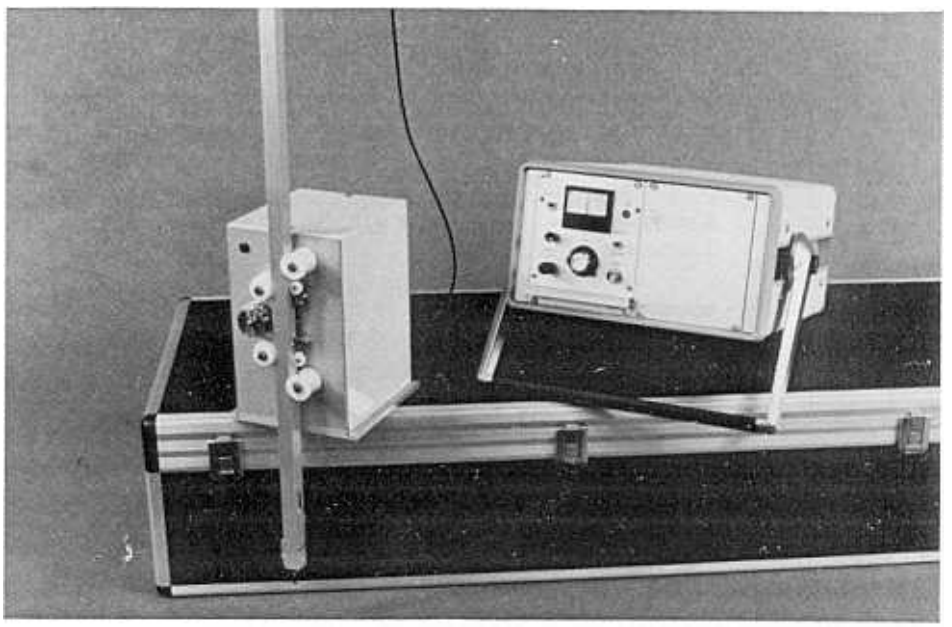
connectors

sensor-connection	- 4- pole miniature jack
instrument control, output and power supply	22-pole Socapex series 20 connector



instruments

PV-09 profile indicator
an accurate bed and surface level transmitter



applications
- bed level contour mapping
- local scour and erosion in hydraulic models
- studies in bed load transport
- continuous measurement of bed and surface levels
- applicable in water with light-weight non conductive materials.

features
- high resolution miniature sensor
- 0.5 m/s tracking speed
- wide range of bed material properties acceptable
- high dynamic characteristics
- visual position indicator
- minimum water level range 0.03 m
- easily accessible electronics.

options
- longer drive shaft
- special cable lengths
- remote control
- advice / supply of mobile installation.

description
The probe is continuously positioned at a fixed, but adjustable distance of 0.5 to 2 mm (bed material dependent) over the bed level by a servo-controlled bridge balance circuit. A vertical position transducer, coupled to the servo output-shaft supplies an analogue output signal.

remote control
Though full instrument control is already incorporated in the transmitter, a Remote Control Unit (PCU) is available as an option. This unit provides full control of all transmitter functions and the required power supply from a remote location (up to 100 m.).
An advantage in the case of centralized data handling.

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multi-mode possibility

Reverse-action electronics allow for measurements of bottom as well as surface level (by switch action). Interface detection is possible by setting the sensitivity to the appropriate value for the difference in conductivity of the media used.

tools

With each instrument a standard set of tools and clamps for appropriate installation of the instrument and/or its spare parts is supplied. Also cleaning and lubrication materials and a spare probe are included.

A ruler, with adjustable pointer, is engraved on the driving shaft, providing easy assistance for installation and calibration.

specifications

system

sensitivity	- 0.2 mm
tracking speed	- 0.5 m/s
tracking mode	- switch selectable
range	- 0.85 m
depth	- minimum 0.05 m maximum 1.08 m (other ranges optional)
liquid conductivity	- 0.05 - 1 mS/cm
output	- + 0.5 - 9.5 VDC
calibration	- 10 V/m
linearity	- 0.1 % of full scale
resolution	- 0.01 % of full scale
power	- 24 VAC $^{+}$/- 15%, 50/60 Hz, 2 A max
dimensions	- 190 x 135 x 195 mm (l x w x h)
weight	- 3.7 kg

sensor

dimensions	- Ø 4 mm , length adjustable between 50 - 150 mm	
materials	- electrodes	- stainless steel 316
	body	- polyolefin
	driving shaft	- aluminium (anodised)
	driving belt	- p.v.c., reinforced

connectors

sensor-connection	- 4- pole miniature jack
instrument control, output and power supply	- 22-pole Socapex series 20 connector