

Instrument

Conductivity type Concentration Meter

The conductivity type concentration meter (CCM) system is an instrument to measure the concentration of sand-water suspensions. The measuring principle is based on the conductivity change of a sand-water mixture due to change of the amount of suspended sediment present in the measuring area. The conductivity of the fluid should differ from the conductivity of the particles. By a second (slave) unit the conductivity of the particle free fluid can be continuously monitored and compensated for.

The CCM system consists of a probe and a CCM control unit. The control unit provides the power, controls and switches. On the control unit settings for the type of measurement (concentration or conductivity), the range, the span, the LCD display unit and the analogue output can be adjusted. The output is presented as an actual value on the LCD display and as an analogue output voltage.



Probes

Applications

Fields of application for this instrument are:

- Bed sediment settlement or erosion
- Dredging studies
- Concentration of suspensions in the food industry

Features

- Compensation for the change of water conductivity (using a slave instrument)
- Measures concentration as well as conductivity
- Largely insensitive for fouling due to the use of a four electrode probe
- Different types/shapes of probes available
- Choice at time of ordering between 24 VDC and 24 VAC power supply.



CCM control unit

Technical specifications of the probe (standard)

Electrodes	4 electrode system each 0.5 x 1 mm Ø platinum
Dimensions	<ul style="list-style-type: none">• probe: 2 x 10 x 10 mm• rod: 6 mm Ø, length 300 mm• cable: 5 m

Technical specifications of the control unit

Housing	CCM control unit is housed in an IP60 protected aluminum box with external mains adapter
Conductivity range	0-3 or 3-60 mS/cm
Concentration range	1-50 % volume (25-1300 kg/m ³)
Type of material	the material has to be non-conductive
Controls	<ul style="list-style-type: none">• system selection• span and zero setting• range selector
Mains adaptor	230 VAC/24 VDC/AC
Display	LCD display (3½ digits)
Outputs	analogue voltage, 0-10 VDC
Connectors	<ul style="list-style-type: none">• BNC (3x)• probe socket• mains socket (24 VDC/AC)
Dimensions	106 x 129 x 187 mm
Weight	1.5 kg

More information:
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