

Handheld 1-D Electro-Magnetic Current Meter

AEM1-DA



VEL

Overview

The AEM 1-DA is a portable, field-use 1-axis electromagnetic flow velocity meter developed for easy and accurate measurement of flow velocity in rivers and various waterways. It can be used in locations with water depths starting from 3 cm. Compared to traditional propeller-type meters, it has fewer malfunctions, is very easy to handle and maintain, and provides digital output of flow velocity values from low to high flow velocities.

Additionally, it features a new memory function. It can record data up to 255 measurement points along with calendar information. This eliminates the need for manual entry into field notebooks, allowing data processing to be done on a computer indoors.

Calibration certificate

Compatible with Ceres calibration.
Additional charge will apply.

Sensor Specifications

Sensor Type	1-axis Electromagnetic Induction
Direction	1-axis, 1-direction
Range	0 to 5 m s ⁻¹
Resolution	0.002 m s ⁻¹
Accuracy	±0.005 m s ⁻¹ or ±2%*
Minimum Depth	3 cm
Dimensions	φ30 mm × 77 mm
Cable Length	10 m (extendable up to 50 m)
Pressure Resistance	Equivalent to 30 m depth

* Velocity calibration range is 0 to 0.5 m s⁻¹.

Display Unit Specifications

Display	LCD, 20 characters x 2 lines
Display Item	Current time, Flow velocity (m/s), Block No.
Averaging Time	Selectable: 1, 5, 10, 20, 40, 60 sec
Memory Capacity	2MB, capable of recording up to 255 blocks (maximum approximately 1 million data points)
Recorded Item	Block No., Measurement time, Flow velocity values, Averaging time
External Output	RS-232C output 1. Transfer of memory data 2. Real-time data transmission
Power Supply	Four C-size alkaline batteries (approx. 18 hours of continuous use)
Dimensions	W225 mm × D100 mm × H90 mm (excluding protrusions)
Weight	Approx. 1 kg (excluding batteries)
Material	PVC (case)
Waterproof Performance	Equivalent to IPX5
Operating Temperature Range	0 to 40°C



Measurement Methods

1. Measurement Using Extension Support Rod
2. Suspended Measurement Using Vane Set



Vane Set (Optional)



*Contents <Vane, Weights <approx. 1.3 kg, approx. 2.5 kg>, Suspension Bracket, 2 Shackles, Swivel>

Low Water Level Mounting Bracket (Optional)



Available in locations with water depths from 3 cm in minimum.

Drawing

