

# PELICAN

## Portable Electromagnetic Water Velocity Meter



The PELICAN electromagnetic water velocity meter is a portable device that measures the velocity of water to determine its flow. The user interface for the PELICAN has been designed to be as simple as possible enabling users to quickly and effectively take accurate velocity measurements. The unit's IP67 rating and sturdy build means that the PELICAN can be used in harsh environments, with the added feature of the waterproof encoder allowing easy navigation even with gloves on.

The PELICAN can be tailored to the user's ideal setup, meaning the units, date and time, language and data logging methods are easily changeable.

Its hydrodynamic shape and small size probe permit measurements close to fluid surface and channel bed or pipeline wall, and with no moving parts, it does not retain debris, guaranteeing accuracy and reliability.

Another feature of the PELICAN is the ability to profile rivers. If depth data is entered by the user, the unit is capable of generating a computed river flow profile, allowing more detailed analysis of the river. The PELICAN allows users to not only transfer data to a computer but also to analyze on the fly. The unit is capable of storing collected data, which can then be reviewed on-site.

Areas include: Rivers and streams, Irrigation canals, Water channels, Sanitation pipes, Open channel



**FLOW-TRONIC** NV

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## Technical Specifications

### Electronic box

Construction	Polycarbonate case, IP67
Display	Colour, LCD, touchscreen, 5"
Encoder	Waterproof, 25mm (1") dia. knob
Range	0 – 3m/s (0 – 9.84 ft/s), flow reversal indication
Recording	Manual or automatic, 12,000 data points 32 river profiles, 30 gauges max. Files in .csv or .xml format
Profiles function	ISO748:2007 flow calculation

### Circular, rectangular and trapezoidal:

Option to take 1 point, 3 points or 0.9x Vmax at the center of the channel. It is possible to accumulate several speed measurements per point. Final calculation of average velocity and flow profile.

**River:** Verticals at locations of the operator's choosing, specifying position, bank width and depth. At each vertical the user may take a number of point readings (1, 2, 3, 5 or 6). The user has the option of accumulating several speed readings per point. Final calculation of average velocity and flow profile. It is possible to record each vertical and export it.

### Battery power

Battery life	Lithium-ion rechargeable battery
PC Interface	Standard: 20hrs continuous usage
Dimensions	RS232
Weight	191 x 126 x 60mm (7.5" x 4.9" x 2.3")
Temperature	1,0 kg (2.2 lb) with batteries -20°C to +60°C (-4°F to +140°F)

### Velocity sensor

Method	Electromagnetic (Faraday's Law)
Construction	Hydrodynamic shape, cast in yellow epoxy resin. Stainless steel electrodes
Cycle measures	0,5 second
Range	0 – 3 m/s (0 – 9.84 ft/s)
Resolution	0,001 m/s (0.003 ft/s)
Accuracy	1% max reading ± zero stability
Zero Stability	Typically ±0,01 m/s, max. 0,03 m/s (±0.03 ft/s, max. 0.09 ft/s)
Calibration	From 0 to 3m/s (0 to 9.84 ft/s)
Minimum depth	30 mm (1.2") water with general wading rod
Dimensions	125 x 30 x 15 mm (5.5" x 1.2" x 0.6")
Weight	0,1 kg (0.22 lb) (without cable)
Cable	Polyurethane sheath 3 m (9.84 ft) standard (extra length optional)
Operating temperature	-5°C to +70°C (23°F to +158°F)
Storage	-20°C to +70°C (-4°F to +158°F)

### Wading rod

Available in lengths of 1.5m or 3m (4.92 ft or 9.84 ft), it can be extended in increments of 50cm (1.64 ft) using additional sections

*Specifications are subject to change without notice*

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