

WATER FLOW | DISCHARGE WATER VELOCITY MEASUREMENT

Instruments



An ISO 9001:2015 Company

WATER CURRENT METER (PROPELLER TYPE)

Accurate River, Canal & Stream Flow Measurement Instrument

The **Balaji HydroMet BHM-H-CM01** measures water velocity and discharge in rivers, canals, streams and hydraulic structures. Each propeller rotation generates an electrical pulse, converted into direct velocity readings in m/s.



0.30 to 3.50 m/s
Operating range

≤ 0.25 m/s
Starting velocity

±0.5% FS
Accuracy

TECHNICAL SPECIFICATIONS

Parameter	Specification
Model	BHM-H-CM01
Type	Propeller Type Water Current Meter
Measuring Principle	Magnet and reed-switch pulse generation
Construction	Chrome-plated brass body; stainless-steel spindle
Propeller	Corrosion-resistant engineering material
Operating Velocity Range	0.30 m/s to 3.50 m/s
Starting Velocity	≤ 0.25 m/s
Accuracy	±0.5% full scale for velocity > 0.30 m/s
Output / Sensor	One pulse per revolution / magnetic reed switch
Calibration Equation	User programmable
Display Unit	m/s (meters per second)
Measurement Method	Wading rod or suspension method
Operating Temperature	0°C to 50°C
Storage Temperature	-10°C to 60°C
Protection	Suitable for fresh-water applications
Standard Compliance	IS 3910 and accepted stream-gauging practices
Typical Applications	Rivers, canals, streams, reservoir outlets and surveys

STANDARD & FIELD USE

- Designed in accordance with IS 3910 requirements.
- Suitable for velocity-area discharge computation.
- Works for single-point, two-point and multi-point observations.

SYSTEM COMPATIBILITY

- Compatible with wading rods, sounding reels and suspension cables.
- Can be used with hydrometric fish weights.
- Field calibration through programmable velocity equations.

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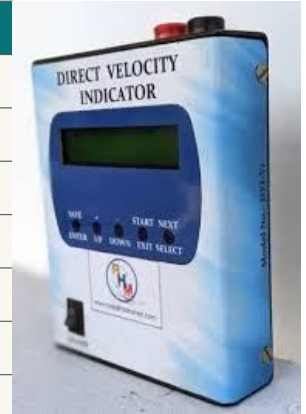
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DIRECT VELOCITY LOGGER / INDICATOR

Parameter	Specification
Display	16 × 2 LCD
Power Supply	2 × AA batteries
Resolution	0.01 m/s
Maximum Velocity Display	99.99 m/s
Data Storage	100 readings
Memory	EEPROM, non-volatile
Battery Backup	Up to 240 hours
Leakage Current	< 1.5 μ A in switch-off condition
Averaging Time	1 to 120 seconds
Keypad / Retrieval	5-key membrane / through keyboard
Technology	AVR microcontroller, RISC architecture



LOGGER FEATURES

- User-programmable calibration equations with positive or negative constants.
- Readings remain stored even when batteries are removed.
- Multiplier range: 0.0001 to 1.0000; constant range: 0.0000 to 0.9999.
- Portable, low-power, menu-driven handheld operation.

DISCHARGE MEASUREMENT USING FISH WEIGHT METHOD

FIELD DEPLOYMENT

For deep channels and river applications, the **BHM-H-CM01** can be used with hydrometric fish weights. The weight stabilizes the current meter and supports reliable measurements at selected depths. **Available fish weights:**

- 10 kg - Cast Iron
- 25 kg - Cast Iron
- 50 kg - Cast Iron



APPLICATIONS

- River Flow Measurement
- Canal Discharge Measurement
- Stream Velocity Monitoring
- Irrigation Water Management
- Hydrological Surveys
- Flood Monitoring Programs
- Watershed Studies
- Reservoir Inflow Measurement
- Water Resources Engineering Projects

Reliable water-velocity measurement for hydrological surveys, discharge studies and field monitoring.