

PrimeProbe[®] 2

Insertion Flowmeter - Specification

Technical Note IXD-600-TN Issue 4

PrimeProbe2 provides an accurate measurement of water velocity at the sensor location. If flow profile is fully developed volume flow is determined (ISO 7145-1982 refers). It is installed in water pipes by means of a small tapping. It may be installed at the point of maximum velocity (pipe centre-line) or at the point of the mean velocity (1/8 x pipe diameter

or 7/8 x pipe diameter). Centre-line installation is often preferred as it allows for a greater margin of error if not installed exactly on the centre-line. 1/8 pipe is generally used if the probe is not long enough to reach the centre-line. For best accuracy it is recommended to measure the pipe internal bore.

Dimensions

Model	Insertion length	Overall length	Pipe sizes (use on pipe centre line)	Pipe sizes (use at 1/8 pipe diameter)
Size 1	300 mm	737 mm	≤ 600 mm	≤ 2400 mm
Size 2	500 mm	937 mm	≤ 1000 mm	≤ 4000 mm
Size 3	700 mm	1137 mm	≤ 1400 mm	≤ 5600 mm
Size 4	1000 mm	1437 mm	≤ 2000 mm	≤ 8000 mm

Specification

Parameter	Specification
Pipe sizes	80mm to 8000mm (at 1/8 pipe diameter installation)
Measurement range	Bi-directional from 0.01m/s to 5m/sec (maximum may be lower dependant upon insertion length and position in pipe)
Accuracy; Point velocity Flow	± 2mm/sec or ± 2% whichever is the greater Refer to ISO 7145-1982
Repeatability	± 0.5% of velocity
Flow determination	Assumes fully developed flow profile; ISO 7145-1982 refers
Measurement sampling	Continuous or programmable 1 – 90 seconds
Minimum fluid conductivity	5µS/cm
Process connection	1 inch (25mm) BSP
Pipeline Pressure rating	16 Bar
Sensor material	PTFE
Body material	SS304
Electrode materials	SS316
Liquid temperature range	0 deg C to 80 deg C
Safety	Probe fitted with anti-bounce chain
Pressure tapping	Female quick-release connector
Adjustment method	5mm Allen key (supplied) fits all screws
Protection	IP68
Battery life	Lithium batteries; ≤3 years (depends on sampling period & usage)
Output; Signal Units Connection	Pulses proportional to velocity/flow-rate - max frequency 32 Hz User selectable MIL-Spec connector
Communications	USB



Primayer Limited

Primayer House, Parklands Business Park, Denmead,
Hampshire, PO7 6XP, United Kingdom
Tel: +44 (0)23 9225 2228 Fax: +44 (0)23 9225 2235
E-mail: sales@primayer.com.uk Internet: www.primayer.com