



MICROFLOW

Technical Specifications:

MicroFlow is a non-contacting liquid flow velocity sensor that uses microwave technology to transmit short pulses that reflect off a moving surface back to the sensor and are analyzed to determine the velocity. It is designed for open channel flow applications where the channel has no existing primary measurement device (e.g. weir or flume). Can be combined with a Pulsar level transducer and controller in order to provide a complete flow measurement system.



PHYSICAL

Sensor Body Dimensions:	90 mm D x 140 mm H (3.5 in x 5.5 in)
Weight:	Nominal 1 kg (2.2 lb)
Sensor Body Material/Description:	Valox 357
Transducer Cable Extensions:	5-core screened
Maximum Separation:	Up to 500 m (1,640 ft)
Mounting Connection:	Via 1" BSP back-mounted thread or 20 mm (0.8 in) via the supplied adaptor. Optional mounting bracket available from Pulsar
Mounting Angle:	45° optimal and mounted at the centerline of the channel with a clear uninterrupted view

ENVIRONMENTAL

Enclosure Protection:	IP68
Max. & Min. Temperature (Electronics):	-20 °C to +60 °C (-4 °F to +140 °F)
CE & Radar Approvals:	Listed in the Certificate of Conformity within the manual.
ATEX Approval:	Ex II 2 G D, Ex mb IIC T4 Gb, Ex mb IIIC T135 °C Db, Ta= -20 °C to +60 °C
FM Approval:	cFmus certified special protection (encapsulation) for Class I, II, III, Division 1, Groups A, B, C, D, E, F, G

PERFORMANCE

Velocity Range:	0.3 m/s to 6 m/s (0.98 ft/s to 19.7 ft/s)
Operational Range:	Up to 3 m H (9.8 ft)
Accuracy:	The greater of ±0.5% or 50 mm/s (2 in/s)
Optimal Installation:	Install at an angle of 45° in line with the flow. More information is provided within the manual — see the 'Locating the MicroFlow sensor' section
Max. Channel Width Per Sensor:	1.5 m (4.9 ft)
Radar:	K-Band (ISM)
Transmitter Power:	<15 dBm
Beam Width:	20° inclusive

OUTPUTS

Communication:	RS485 and Modbus RTU
Compatibility with Pulsar Controllers:	Integrates with FlowCERT or Ultimate

PROGRAMMING

PC Programming:	Via RS485 Modbus RTU
Programming Security:	Via passcode
Programmed Data Integrity:	Via non-volatile memory
PC Setup & Monitoring Software:	MicroFlow PC — Compatible with Windows 7/8/10

SUPPLY

Operating Voltage:	10-28 V DC
Power Consumption:	0.36 W

Also available in a 4-20mA loop powered version with ATEX Ex ia Zone 0 approval — MicroFlow-i

