

# MicroFlow

## Non-Contacting MicroFlow Liquid Velocity Sensor

MicroFlow is a non-contacting liquid velocity sensor that uses microwave technology to transmit short pulses that reflect off a moving surface back to the sensor and are analysed 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.



## Technical Specification:

PHYSICAL:	
Sensor body dimensions:	Diameter 90mm x height 140mm (3.54in x 5.51in)
Sensor body weight:	Nominal 0.7kg (1.54lbs)
Sensor body material:	Valox 357 U
Transducer cable extensions:	5-core screened
Maximum separation:	Up to 100m (328ft)
Mounting connection:	Via 1" BSP back mounted thread. Optional mounting bracket available from Pulsar
Mounting angle:	45° optimum and mounted at the centre line of the channel with a clear uninterrupted view
ENVIRONMENTAL:	
Enclosure protection:	IP68
Max. and min. temperature (electronics):	-20°C to +60°C (-4°F to +140°F)
APPROVALS:	
CE & radar approvals:	2014/3-/EU - EMC Directive. Standards applied: EN62311:2008 / EN 300 440-1 / EN 300 440-2 / EN 61010-1:2010 / EN 61326-1:2013
ATEX approval:	ATEX Ex II 2 G D, Ex mb IIC T4 Gb, Ex mb IIIC T135°C Db, Ta= -20°C to +60°C
PERFORMANCE:	
Velocity range:	0.2 - 6m/s (0.66 - 19.7ft/s)
Accuracy:	The greater of ±0.5% or 0.03m/s (0.1ft/s)
Optimum installation:	Install at an angle of 45° in line with the flow. More information is provided within the <a href="#">manual</a> - see the 'Locating the MicroFlow sensor' section
Max. channel width per sensor:	1.5m (4.92ft)
Radar:	K-Band (ISM)
Transmitter power:	<15 dBm
Beam width:	20° inclusive
OUTPUTS:	
Communication:	RS485 and Modbus RTU - integrates with compatible Pulsar controllers ( <a href="#">Velocity Interface</a> , <a href="#">FlowCERT</a> , <a href="#">Ultimate</a> )
PROGRAMMING:	
PC programming:	Via RS485 Modbus
Programming security:	Via passcode
Programmed data integrity:	Via non-volatile memory
PC setup and monitoring software:	MicroFlow PC - compatible with Windows 7/8/10
SUPPLY:	
Operating voltage:	10 - 28Vdc
Power consumption:	0.36W

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