



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

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| 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

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|---|---|
| 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

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|---------------------------------------|--|
| 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

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



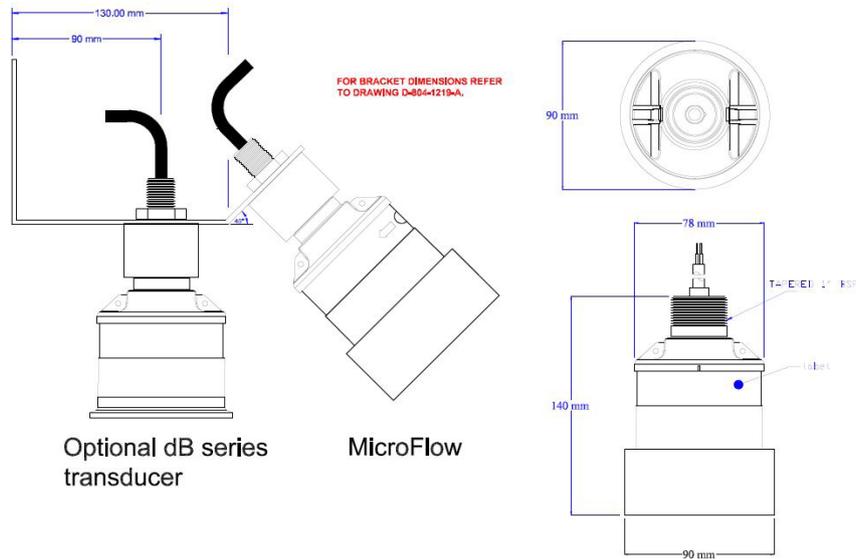
PROGRAMMING

| | |
|--|---|
| 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



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