# MICROFLOW-i


## Technical Specifications:

MicroFlow-i is a non-contacting low power consumption microwave liquid velocity sensor. It can be installed as an individual sensor or used to provide HART communication protocol or a 4-20mA loop powered signal into a system. It's extremely low power consumption makes it the ideal velocity solution for sewerage network monitoring (CSO) and all remote installations where mains power is unavailable.

### PHYSICAL: MOUNTING OPTION SPECIFIC

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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:** | 2-core screened |
| **Maximum Separation:** | Up to 1,000 m (3,280 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 1 G D, Ex ia IIC T4 Ga, Ex ia IIIC T135°C Da (Directive 2014/34/EU) |

### PERFORMANCE

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| **Velocity Range:** | 200 mm/s to 6 m/s (7.9 in/s to 19.7 ft/s) |
| **Operational Range:** | Up to 3 m H |
| **Accuracy:** | The greater of ±1.5% 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-i 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 |
| **Wake-up Time:** | Typically 4 seconds warm (<12 hours from last start-up) |

### OUTPUTS

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| **Communication:** | HART compatible, 4-20mA loop powered |

## PROGRAMMING

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|---|---|
| **PC Programming:** | MicroFlow-i HART PC |
| **Programming Security:** | Via passcode |
| **Programmed Data Integrity:** | Via non-volatile memory |
| **PC Setup & Monitoring Software:** | Compatible with Windows 7/8/10 |

## SUPPLY

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| **Operating Voltage:** | 10-28 V DC |
| **Power Consumption:** | • Start-up = 20mA<br>• Average current = 60 µA per hour when one velocity measurement is performed every 15 minutes |

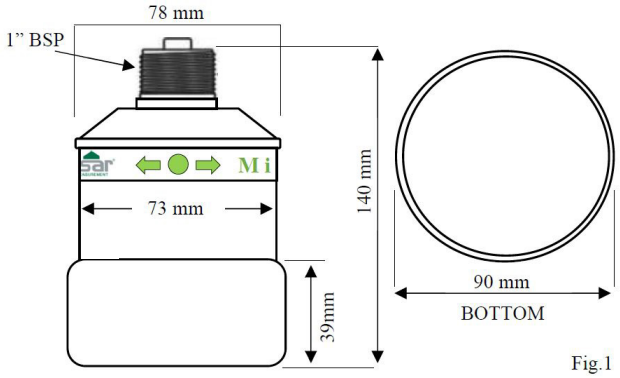


Fig.1

Microflow-i Drawing

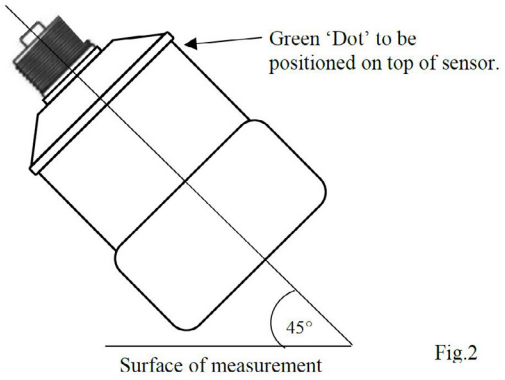


Fig.2

Microflow-i Mounting Drawing

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For more information, please visit our website:

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