MicroFlow-i

Non-Contacting Loop Powered Liquid Velocity Sensor

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.

Technical Specification:

PHYSICAL:	
Sensor body dimensions:	Diameter 90mm x height 140mm (3.54in x 5.51in)
Sensor body weight:	Nominal 1kg (2.2lbs)
Sensor body material:	Valox 357
Transducer cable extensions:	2-core screened
Maximum separation:	Up to 1000m (3280ft)
Mounting connection:	Via 1" BSP back mounted thread or 20mm via supplied adaptor 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:	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:	
Velocity range:	0.2 - 6m/s (0.66 - 19.7ft/s)
Operational range:	Up to 3m height
Accuracy:	The greater of ±1.5% or 0.05m/s (0.16ft/s)
Optimum 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:	1.5m (4.92ft)
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:	
Communication:	HART compatible, 4-20mA loop powered
PROGRAMMING:	
PC programming:	MicroFlow-i HART PC
Programming security:	Via passcode
Programmed data integrity:	Via non-volatile memory
PC setup and monitoring software:	Compatible with Windows 7/8/10
SUPPLY:	
Operating voltage:	10 - 28Vdc
Power consumption:	Start-up = 20mA, Average current = 60µA per hour when one velocity measurement is performed every 15 minutes

Patent pending.

Pulsar Process Measurement Ltd. operates a policy of constant development and improvement and reserves the right to amend technical details as necessary.

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