

# Flowwatch 3i

Multiphase flow meter Flowwatch 3i fulfills the essential requirements of well testing as a simple device to constantly monitor output stream of each single phase.

The Flowwatch 3i is based on the 15+ years field proven technology platform of Pietro Fiorentini multiphase flow meters.

Installation and maintenance of the multiphase flow meters have been developed to allow operators manage themselves their well flow monitoring device.

In addition, the Flowwatch 3i has essential advantage of not employing any radioactive source, avoiding every single documentation, importation and handling issues.



Topside wellhead



Offshore wellhead



Floating units

## Flowwatch 3i competitive advantages



Non-radioactive meter



All flow patterns



Cross correlation for a reliable velocity measurement



Skid mounted version available



Wide size range



Smart calibration on factory



High repeatability and long term stability



Upgradable to radioactive type



Onshore and offshore installation



Retrievable Venturi

**Table 1** Features

## Technical features

Features	Values
Operating Range	0-100% water cut 0-92% gas volume fraction (GVF)
Typical Uncertainty (95% CL)	Liquid flow rate* $\pm 3\%$ (0-80% GVF) $\pm 4\%$ (80-92% GVF) Gas flow rate* $\pm 7\%$ (0-92% GVF) Water cut $\pm 3\%$ (0-60% GVF) $\pm 4\%$ (60-80% GVF) $\pm 5\%$ (80-92% GVF)
Size	Starting from 0.5"
Design Pressure & Temperature	Up to 10.000 psi (690 bar), up to 302 °F (150 °C)
Meter pressure drop	<1 bar
Communication interface	Communication ports <ul style="list-style-type: none"> <li>• RS-485 single or redundant</li> <li>• RS-422 single or redundant</li> <li>• Ethernet single or redundant</li> </ul> Communication protocols <ul style="list-style-type: none"> <li>• Modbus ASCII/RTU</li> <li>• TCP/IP</li> </ul>
Flow Electronic Transmitter	<ul style="list-style-type: none"> <li>• Real Time controller, Linux operating system</li> <li>• Ambient temperature -40 °C / +75 °C</li> <li>• Power supply: 24VDC or 110÷240 VAC, 50÷60Hz</li> <li>• Power consumption: 15W@24VDC</li> <li>• Enclosure for safe or hazardous area</li> <li>• Weather protection: IP66</li> <li>• Stainless steel or aluminum enclosure</li> <li>• Field display (optional)</li> <li>• ATEX/IECEX certification Ex d (or Ex ia) IIB T3-T6 Ga</li> </ul>
HMI	HMI for Windows

## Materials and approvals

Part	Material
Meter Body	AISI316, Duplex, Inconel 625, others on request

**REMARK: The materials indicated above refer to the standard models. Different materials can be provided according to specific needs.**

**Flowatch 3i** multiphase flow meter is designed according to the European standard EN 14382. The product is certified according to European Directive 2014/68/EU (PED).  
Leakage class: bubble tight, better than VIII according to ANSI/FCI 70-3.



EN 14382



PED-CE