



Subsea Flowwatch Multiphase Flow Meter

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The subsea Flowwatch multiphase flow meter has been developed with the same tried and tested internal technology supplied in the Flowwatch HS and run on the same software platform.

It utilizes a patented high-speed gamma detector and a combination of DP measurement from a venturi, impedance measurement (capacitance/conductance of the oil/water mixture) and bulk velocity measurement via sensor cross-correlation.

Built-in redundancies ensure the meter can meet a 25 year design life. The software and firmware are designed such that, as improvements in software are created they will be backwardly compatible with installed meters and downloadable from surface.

Florentini are also working to offer a future generation of the meter with the capability of monitoring and controlling Chemical Injection Valves creating the prospect of a closed loop system of flow metering and chemical injection.

Subsea Flowwatch on Running Tool



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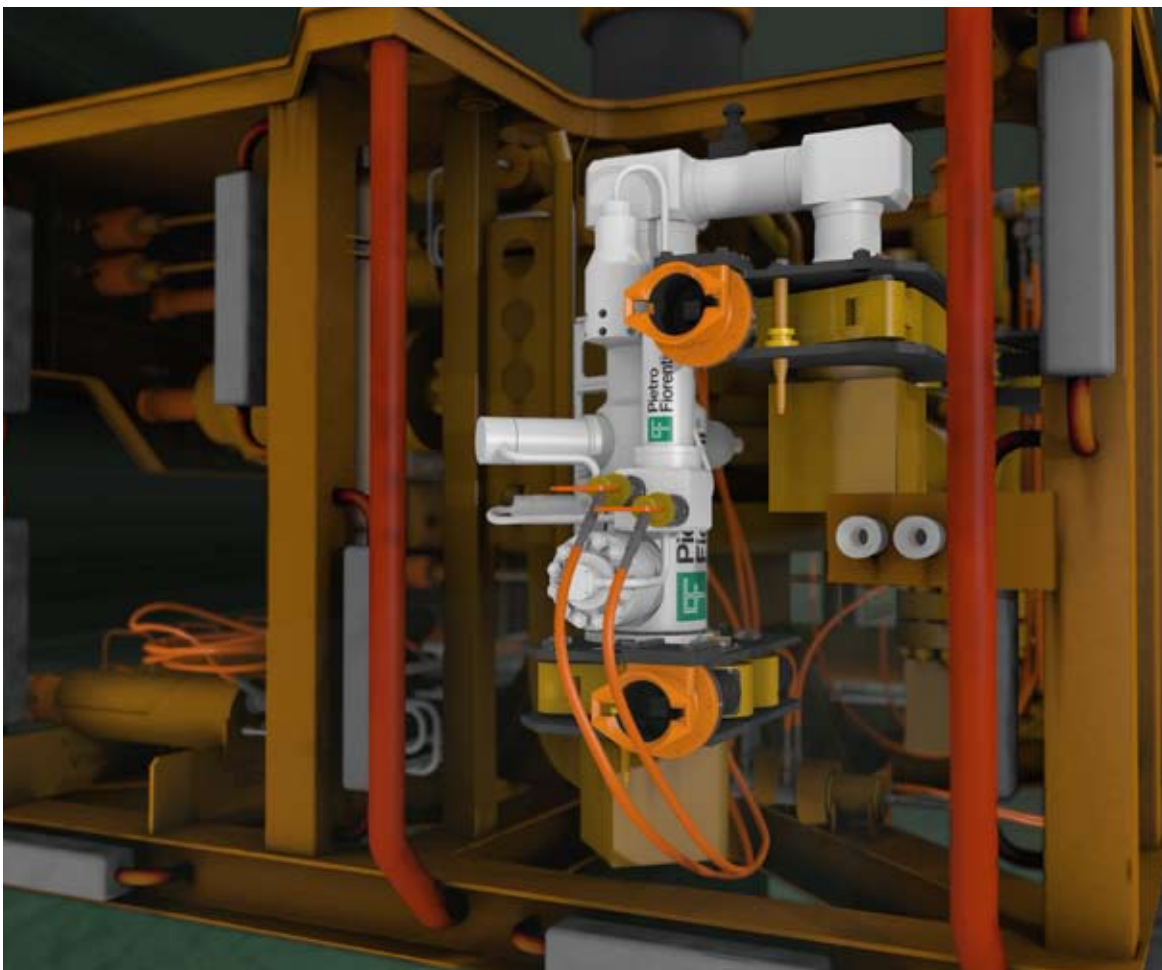
The meter is offered with a twin Destec interface as standard but it can utilize any proprietary interface. The meter can also be incorporated into a “Choke Bridge” unit, the design of which can be handled by Fiorentini, including a running tool.

Fiorentini’s approach to subsea differs from that of our competitors in our commitment to provide a complete subsea system that fully integrates with the host structure. This includes a proprietary running tool offering an ISO interface as standard but can be offered with a custom interface if required.

The running tool also offers the capability to run the SCM or Choke to cut down on overall tooling requirements.

In designing our own virtual Horizontal and Vertical Subsea Trees Fiorentini have gone to unparalleled lengths to ensure our meter offers the best possible package and interfaces.

Subsea Flowwatch on Christmas Tree



Technical Data

Design pressure	10,000 psi
Design temperature	-27° C / +180° C
Water depth	3,000 m (10,000 ft)
Design life	25 years
Body material	Superduplex, Inconel 625 clad
Communication interface	<ul style="list-style-type: none">• 2x Ethernet• 2x CANbus• 2x RS 485
Redundancy	Sensors, Electronics, Transducers, Communication
Flow computer	<ul style="list-style-type: none">• Redundant CPU• Power supply: 24 VDC (consumption 25 W)

Pietro Fiorentini Solutions



Subsea HIPPS



HIPPS



Multiphase Flow Meter



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The data are not binding. We reserve the right to make eventual changes without prior notice.

CT-s 576-E April 2013

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