

Xtreme S

The **Xtreme S Wetgas Meter** has been developed by Pietro Fiorentini to offer to the users a dedicated product to complete the range of metering solutions.

It is a modular, non-intrusive, non-radioactive, inline system, providing real-time measurements of oil, water, and gas flow rates in Wetgas flow regimes (Lockhart-Martinelli < 0.3) without any separation or moving parts. It implements the latest state-of-the-art technologies such as the Velocity meter and the Microwave WLR meter. It works in single-phase and in multiphase streams, accurately measuring in Wetgas condition.

The flow rates of oil, water and gas are calculated combining the measurements of the differential pressure across the Venturi inlet and flow velocity to provide an even more reliable and robust measurement to our customers. The fluid velocity is measured by the Velocity meter and the mix density from the Venturi differential pressure. The Water-Cut is measured by the Microwave WLR meter.





Topside wellhead



Offshore wellhead



Floating units

Xtreme S competitive advantages



Non-radioactive meter



Ultra-rugged design suitable for harsh field conditions



Easily upgradable to radioactive



High flexibility: both onshore and offshore application



High accuracy due to the flow Velocity module



Suitable for mobile applications (well testing on mobile units)



Advanced, Machine Learning based, auto diagnostic system



Data connectivity for remote operation



Reliability and long-term stability due to high quality components



No moving parts

Table 1 Features



Technical features

| Features | Values |
|-------------------------------|--|
| Operating Range | • 90-100% GVF • 0-100% WLR |
| Typical Uncertainty (90% CL) | Gas flow rate: ±4 % relative Liquid flow rate: ±10 % relative (> 10 m3/h) Liquid flow rate: ±1.5 m3/h absolute (< 10 m3/h) WLR: ±5 % < 98% GVF; ±7.5 % > 98% GVF, abs. |
| Size | From 2" to 14" |
| Design Pressure & Temperature | Up to 5.000 psi (345 bar), up to 250 °F (121 °C) |
| Process Connection | ANSI/API flanges or clumped hubs |
| Data Connectivity | Serial RS-422/RS-485 single/redundant or Ethernet TCP/IP (Modbus) |
| Flow Electronic Transmitter | Real Time controller, RTOS Linux- Real Time Electronics temperature -40° C / + 85° C Power supply: 24VDC, or 110÷240 V 50÷60Hz Power consumption: 22W Enclosure for safety area or for hazardous area Weather protection: IP 66 Stainless steel or aluminum enclosure With local display (as optional) ATEX/IECEx certification Ex d (or Ex ia) IIB T3-T6 Ga |
| HMI | HMI for Windows |

Materials and approvals

| Part | Material |
|------------|---|
| Meter Body | UNS 31803 (Duplex), UNS 06625 (Inconel 625), SS316 or Inconel 825 |

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



NACE MR0175/ISO 15156



ATEX 2014/34/EU



IECEx



EMC EN 61000



PED-CE