

FioSonic

FioSonic is the natural evolution of the Pietro Fiorentini know-how and experience in the gas industry. With its multi path-chordal ultrasonic technology **FioSonic** provides real time diagnostics high accuracy and redundancy for Custody Transfer gas flow measurement.



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|--|---|--|
|  Gas liquefaction |  Heavy industries |  Gas processing |
|  Gas compression / booster stations |  Medium/small industries |  Regasification |
|  Gas storage |  District stations |  Gas storage |
|  City gates |  Gas reverse flow | |

Features	Values
Flow rates	from 318 cfh to 1.543.200 cfh from 9 m ³ /h to 43.698 m ³ /h
Design pressure	up to 1.479 psi(g) up to 102 bar(g)
Ambient temperature range	from -40°F to +140°F from -40°C to +60°C
Gas temperature range	from -40°F to +158°F from -40°C to +70°C
Accuracy for fiscal use (OIML R137-1) or no fiscal use	Class 0.5 Q _{min} ≤ Q < Q _t ±1% & Q _t ≤ Q ≤ Q _{max} ±0.5% Class 1 Q _{min} ≤ Q < Q _t ±2% & Q _t ≤ Q ≤ Q _{max} ±1%
Rangeability	up to 1:100
Repeatability	better than 0.1%
Index Protection	IP 66 /NEMA 4X
Environment class	M2/E2
Power supply	14 - 29 V DC
Explosion proof protection	ATEX - Ex IIG Ex ia IIC T4 Ga IECEX - Ex ia IIC T4 Ga cQPSus - Class 1 Div.1 Gr. ABCD T4-T1(Ex ia IIC T4-T12 Ga)
Nominal dimensions DN	from 3" (DN80) to 30" (DN750)
Connections	ANSI 150 – ANSI300 – ANSI600 RF/RTJ flange finish according to ASME B 16.5

Table 1 Features

Materials and Approvals

Part	Material
Body	Carbon steel ASTM A350 LF2 Cl.1
Electronic enclosure	Epoxy painted low copper aluminum alloy Stainless Steel 316 (on request)
Transducers	Titanium ASTM B348 Ti GR.2
Body painting	According to ISO12944-5 minimum Class C3 H (RAL9006 Grey)

Table 2 Materials

The **FioSonic** is designed to meet AGA report N.9 and ISO 17089-1 requirements.



AGA9



ISO17089-1

The product is certified according to European Directives 2014/68/EU (PED) as well as 2014/32/EU (MID), 2014/34/EU (ATEX), - International Organization of Legal Metrology OIML R137 -1 - International Electrotechnical Commission IECEx – QPS Evaluation Service (Canada – USA) cQPS_{us}.



PED



MID



ATEX



OIML
R137-1



IECEx



cQPS_{us}

FioSonic competitive advantages



Titanium transducers for long durability



BCW (Broadband Continuous Wave)



Low voltage sensors



Easy maintenance



No moving parts



30% Hydrogen blending compatible.



1:160 High rangeability



Metallic wetted parts



Uni or Bi-directional
Flow measurements