

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.



 CH ₄ → O ₂	Gas liquefaction	 Heavy industries		 Gas processing
 O ₂ → CH ₄	Gas compression / booster stations	 Medium / small industries		 Regasification
 CH ₄	Gas storage	 District stations		 Gas storage
 City gates		 Gas reverse flow		

Features	Values
Flow rates	from 9 m ³ /h to 43.698 m ³ /h from 318 cft to 1.543.200 cft
Design pressure	<ul style="list-style-type: none"> up to 102 bar(g) up to 1.479 psi(g)
Ambient temperature	from -25°C to +55°C from -13°F to +131°F
Gas temperature range	from -25°C to +55°C from -13°F to +131°F
Accuracy	Class 0,5 - OIML R137-1 Class 1 - MID 2014/32/EU or OIMLR137-1
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 II 1 G 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 DN80 (3") to DN 750 (30")
Connections	PN16 RF/RTJ flange finish according to EN1092-1 ANSI 150 – ANSI300 – ANSI600 RF/RTJ flange finish according to ASME B 16.5 (EN1759-1)

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) cQPSUs.



PED



MID



ATEX



OIML
R137-1



IECEx



cQPSUs

Fiosonic competitive advantages



Titanium transducers for long durability



BCW (Broadband Continuos Wave)



Low voltage sensors



Easy maintenance



No moving parts



30% Hydrogen blending compatible.



High rangeability



Metallic wetted parts



Uni or Bi-directional
Flow measurements