



FioSonic

Ultrasonic Gas Flow Meter

For custody transfer and process applications.

FioSonic

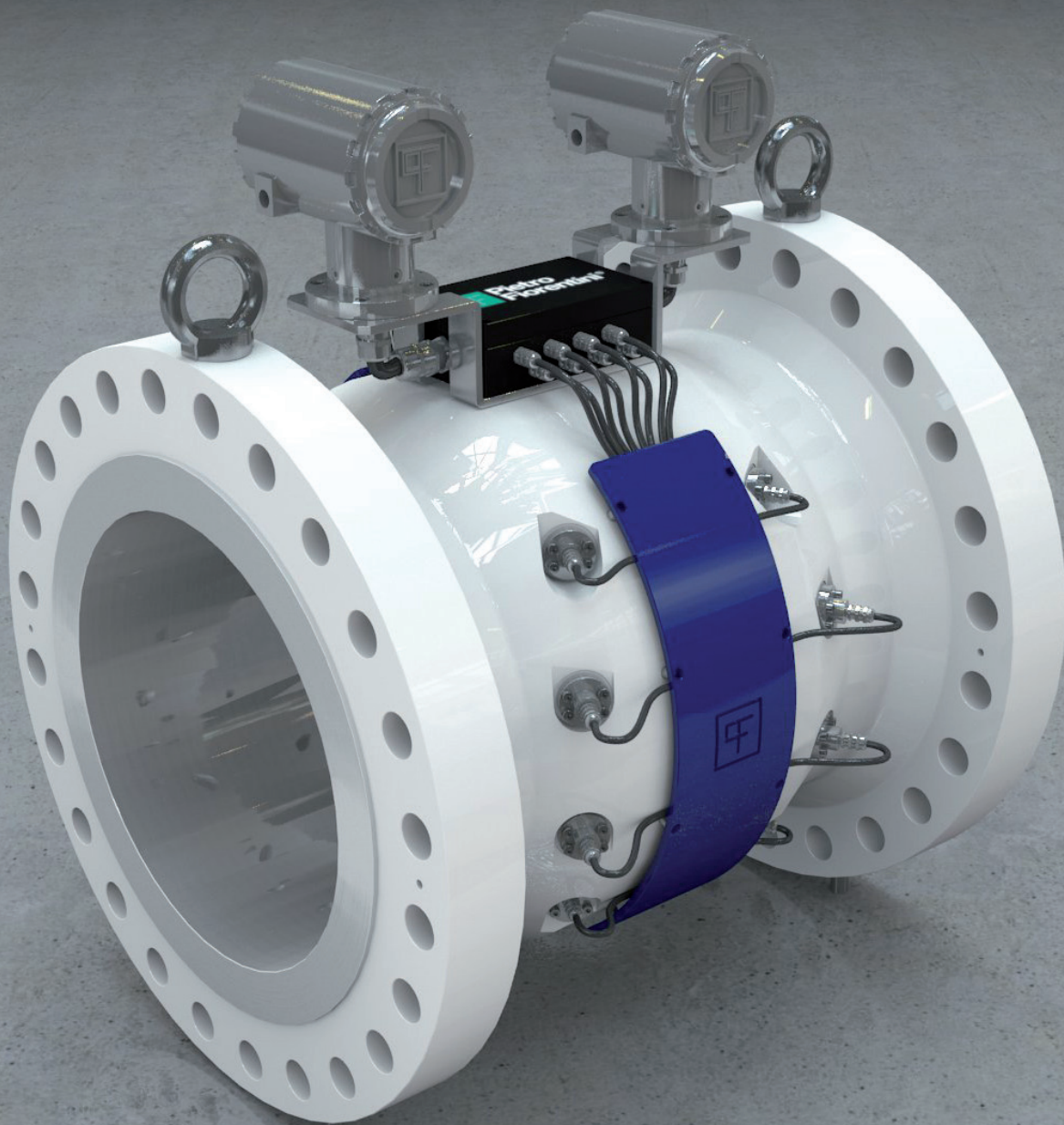
FioSonic is the natural evolution of the Pietro Fiorentini know-how and experience in the gas industry. With a multi-path chordal technology, FioSonic in the real-time guarantee diagnostics, high accuracy, redundancy, for liquid and gas fiscal flow measurement.

Areas of application

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The main areas of applications the Pietro Fiorentini ultrasonic meter are:

- Onshore and offshore applications
- Power plants, refineries and chemical industry
- Natural gas production, transportation, distribution and storage
- Fiscal metering
- Process control
- Process gases
- Dry, wet, corrosive and abrasive gases
- Gas like sour gas or biogas with H₂S

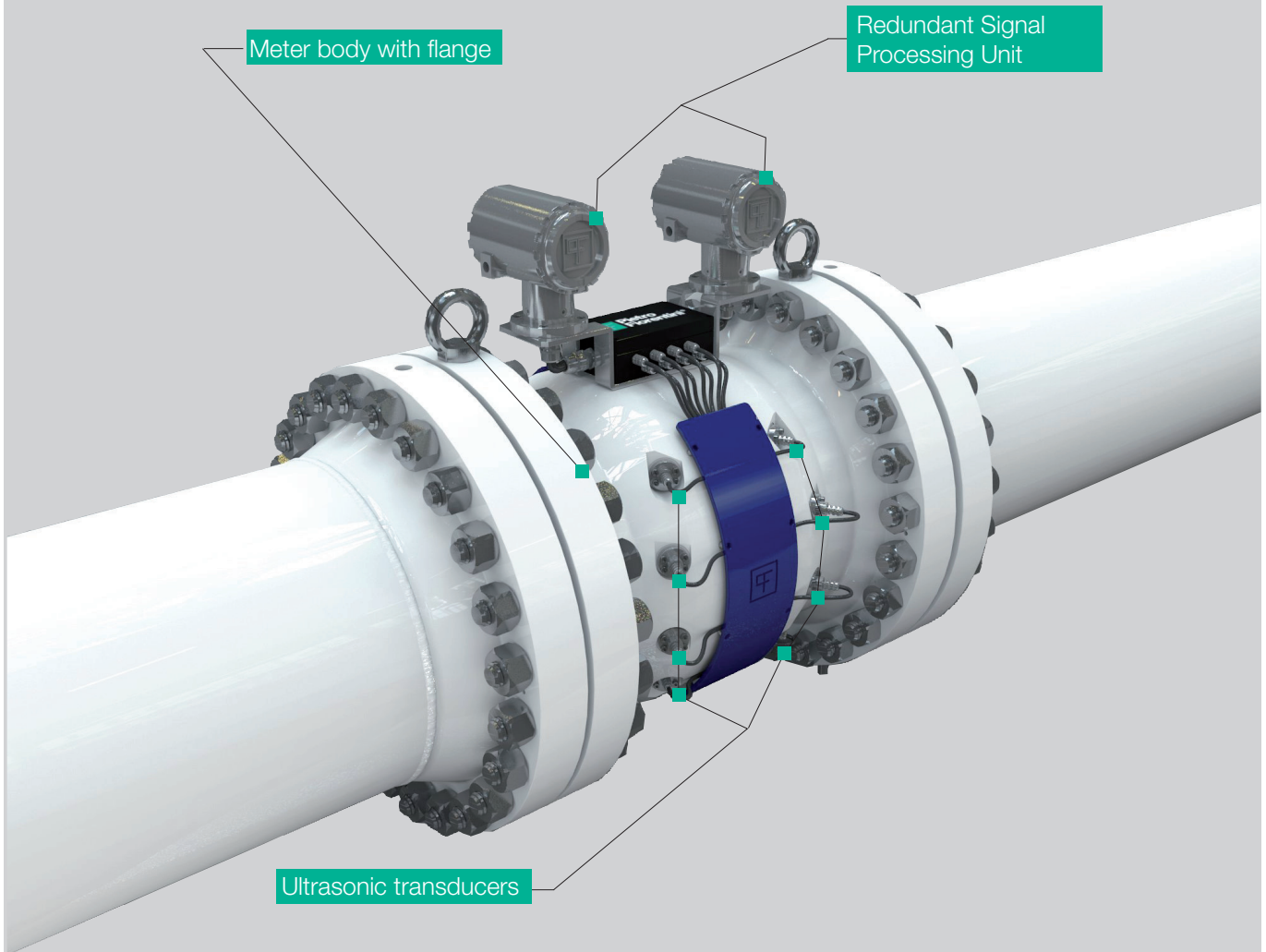
Ultrasonic Gas Flow Meter**FioSonic**

The careful selection of materials and severe quality control procedures **guarantee reliability** and **durability** along the meter's life.

Main Features

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- Operation even at atmospheric pressure
- Bi-directional flow measurement
- No damage from over-flow
- Field display for main functions
- Redundant S.P.U. (optional)
- 4 chord standard design (8 chord optional)
- Rangeability greater 100:1
- Innovative system smart diagnostic
- Nearly insensitive to regulator noise



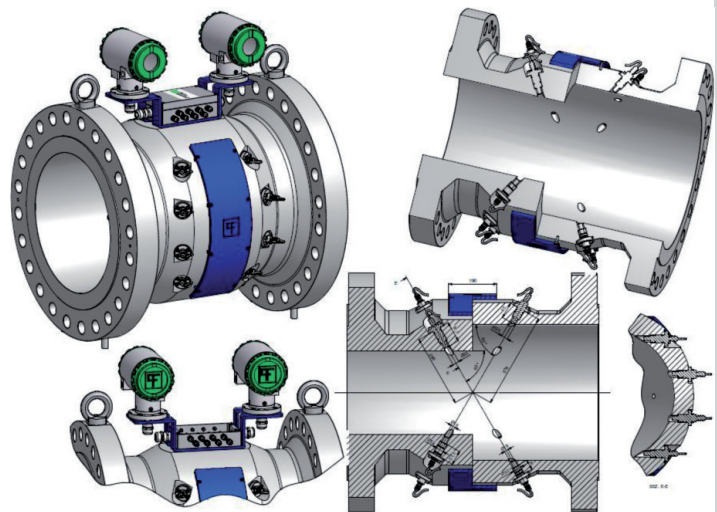
- **Reliable**
Dual Fully Redundant S.P.U. (CPU board + Transducers): two independent meters onto a single spool piece
- **Flexible:**
Dual Digital Filtering to adapt flow rate data measurement based on flow conditions
- **Easy Integration**
Expandable to 5 paths, 5+1 paths or 6 paths for future upgrades



S.P.U.

Design & Overview
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The advantages of Pietro Fiorentini Ultrasonic gas flow meter

- Multi – chord for custody transfer
- 2 x Single CPU core Model Blackfin
- Analog Inputs and outputs
- Digital output (pulse)
- Communication ports (232/485)
- MODBUS protocol for remote connection with PLC/ SCADA Systems
- Dual Fully Redundant Ultrasonic Flow Meter
- Bi-directional flow


General Technical Features

Uncertainty	≤ ± 0,7% Uncalibrated ≤ ± 0,2% high press. Calibrated (up to 0,1 Calibrated & adjusted)
Repeatability	≤ ± 0,1%
Ambient Temperature	-20 - +70°C
Process Temperature	-40 /+55 °C (Standard)
Pressure	From ANSI 150 to 900
Path configuration	2,4, 2+2, 4+4 redundant
Protection Category	IP 66
Digital In /Outputs	4
Serial In/Outputs	1x RS232 1x RS485 Modbus protocol
Analog Inputs /Output	2 Input / 1output
Power supply	12V-24V DC, < 8W

Approvals
Hazardous Area

ATEX	II 2G Ex de ma IIB T5
IECEX	Ex de ma IIB T5 Gb

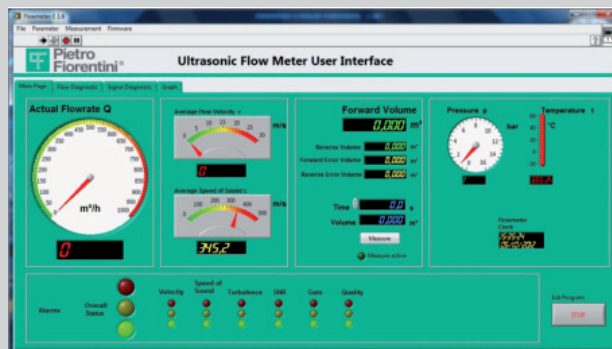
Custody transfer

MID	Measurement Instrument Directive 2004/22/EC by NMI
AGA	AGA 9
ISO	17089
OIML	R 137-1 Edition 2012

Diagnostic System

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- User Friendly / Innovative control board (Standard or Premium version)
- Software installed on PC / Remote SCADA system
- Innovative system with Three Level Smart diagnostic:
 - **GREEN** Normal operation
 - **YELLOW** Pre-alarm – NOT CRITICAL ISSUE
 - **RED** Alarm – CRITICAL ISSUE
- PF Property license Software
- Protection of main metering parameters (Key values blocked)



The daily pursuit of advantage

FioSonic



Excellence is a full time job.

Our Research and Development department reflects the Company's desire to master the entire sphere of technologies required to produce its solutions, but also to guarantee the customer a complete technical support in all project areas.

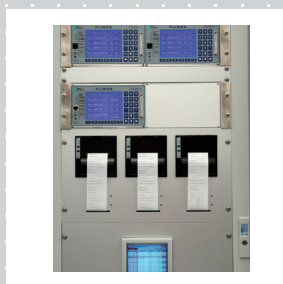
MEASURING RANGE
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NOMINAL SIZE		Measuring range m ³ /h		Dimensions (1)	Weight (2)
		Q min	Q max	Length mm (face to face)	kg
DN 100	4"	20	800	300	100
DN 150	6"	32	1800	450	150
DN 200	8"	40	3100	660	270
DN 250	10"	50	4800	660	380
DN 300	12"	65	6600	660	450
DN 400	16"	120	10100	762	700
DN 500	20"	200	14800	902	1050
DN 600	24"	285	20600	991	1525



(1) Other dimensions are available on request

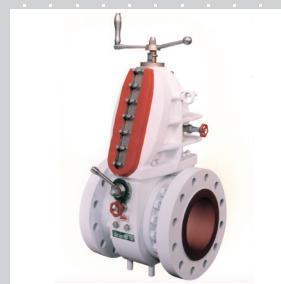
(2) Weight indications are to be considered as guide values, are estimated for (S.600) carbon steel



Integrated metering
systems



Industrial turbine meters



Orifice fittings



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The data are not binding. We reserve the
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