

H2-SSM

The **H2-SSM** smart meter by Pietro Fiorentini incorporates the latest ultrasonic measurement technology to measure both natural gases and **100% hydrogen**, switching between gases without any additional interaction. Built with a valve inside the meter which can act as Excess Flow Valve to enhance customers and network safety. This device is used for residential applications on low pressure gas distribution networks.



Residential users

Features	Values
Measurement Range (Qmin - Qmax)	Natural gas: from 0.040 to 6 m ³ /h Hydrogen: from 0.130 to 20 m ³ /h Natural gas: from 1.4 to 212 cfh Hydrogen: from 4.6 to 706 cfh
Minimum Flow rate (Qstart)	Natural gas: 0.01 m ³ /h Hydrogen: 0.033 m ³ /h Natural gas: 0.35 cfh Hydrogen: 1.16 cfh
Maximum Operating Pressure*	up to 12.5 kPa up to 125 mbar
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 1.5
Ingress protection	Compliant to IP65
Power supplies and operating lifetime	Lithium batteries 15 years for metrological battery (non-replaceable) Up to 15 years for communication battery (replaceable)
Remote communication interface	Zigbee 2.4 GHz and 868 MHz
ATEX classification	II 3G Ex ic IIC T3 Gc
Gas volume compensation	Temperature compensated (TC)
Nominal dimensions	Connection distance – 6" (152,4mm) Width 241.6 mm; Height 263.8 mm; Depth 146.8 mm
Connections	1" BS 746

(*) NOTE: Different functional features and/or extended temperature ranges available on request. Stated temperature ranges are the maximum for which the equipment's full performance, including accuracy, are fulfilled. Standard product may have a narrower range.

Table 1 Features

Materials and Approvals

Part	Material
Body	Metal
Electronic enclosure	Plastic polycarbonate

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

Table 2 Materials

The **H2-SSM** is designed to meet OIML R137, EN 14236, SMETS2. The product is certified according to CPA, European Directive 2014/34/EU (ATEX), European Directive 2014/32/EU (MID) and UKCA.



OIML R137



EN 14236



SMETS2***



CPA**



ATEX



MID



UKCA*

(*) at present time under certification

(**) planned for 2023

(***) under development

H2-SSM competitive advantages



Natural gas and 100%
Hydrogen compatibility



Switching between gases without
any additional interaction



Temperature monitoring sensor



In built Excess Flow Valve function



Valve for prepayment function



3 front keys (users interface)



15 years metrological battery



Up to 15 years communication battery life



Dual band: 2.4 GHz and 868 MHz