

# SSM-iCON 400

The **SSM-iCON 400 smart meter** by Pietro Fiorentini incorporates the latest ultrasonic measurement technology to the flexibility of the interchangeable communication module. Equipped with the state of the art monitoring sensors it can stop the gas flow for temperature (fire), pressure or seismic events as well as from remote, to enhance customers and network safety. Suitable for use with natural gas, biomethane and hydrogen blends (up to 20%), this device is used for residential applications on low pressure gas distribution networks.



Residential users

Features	Values
Capacity	11.6 m <sup>3</sup> /h at 0.125 kPa differential pressure 410 cfh at 1/2" w.c. differential pressure
Measurement Range (Qmin - Qmax)	0.09 to 11.6 m <sup>3</sup> /h 3 to 410 cfh
Minimum Flow rate (Qstart)	0.03 m <sup>3</sup> /h 1 cfh
Maximum Operating Pressure*	up to 34.5 kPa up to 5 psig
Ambient temperature*	from -35°C to 55°C from -30°F to 130°F
Gas temperature range*	from -35°C to 55°C from -30°F to 130°F
Accuracy	Class 1 (according to ANSI B109.6)
Ingress protection	Compliant to IP67 and NEMA 4X
Power supplies and operating lifetime	Lithium batteries 20 years for metrological battery (non-replaceable) Up to 20 years for communication battery (replaceable)
Remote communication interface	Both NB-IoT and Cat-M1 in the same module
Hazardous area certification	Class 1 Division 1 Group D as per ANSI/ISA 121201
Gas volume compensation	Temperature compensated (TC) and non temperature compensated (NTC) options available
Nominal dimensions	Connection distance – 6" (152,4mm)
Connections	10LT, 20LT, 30LT, Sprague (other on request)

(\* 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	Die cast aluminum ANSI/AA 384.0 with epoxy finishing for the meter case
Electronic enclosure	Plastic polycarbonate for the electronics case suitable for outdoor installation

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

**Table 2** Materials

The SSM-iCON 400 is designed to meet ANSI B109.6, AGA Ultrasonic Gas Meters Engineering Technical Note as well as key features compliance of OILM R137, ANSI B109.0 (draft), PS-G-06 and EN14236.



ANSI B109.6



OILM R137



ANSI B109.0  
(draft)



EN 14236\*



AGA  
Engineering  
Technical Note



PS-G-06

\*Limited to "5.7 Contaminants in the gas stream".

The product is certified cULus Class1 Div1 for Hazardous area installation.



cULus  
Class1 Div1

## SSM-iCON 400 competitive advantages



Emergency gas shut off for  
fire event



Emergency gas shut off for  
earthquake



NB-IoT and Cat-M1 multi standard  
IoT modem



Advanced diagnostic with pressure  
and temperature monitoring sensors



Simple HMI with LCD display.  
Single button operation



20 years metrological battery



20 years communication battery life  
with NB-IoT module (both 4G and  
5G networks)



Open protocol and interchangeable  
communication module



Suitable for outdoor installations



Biomethane compatible and  
20% Hydrogen blending compatible.  
Higher blending available on request