

SSM-iCON

The **SSM-iCON smart meter** by Pietro Fiorentini incorporates the latest ultrasonic technology to measure gases plus a variety of network connectivity options. It is equipped with a valve which can be triggered by remote or locally upon specific events, like earthquake or temperature. Suitable for use with natural gas, biomethane and hydrogen blends (up to 20%), this device is used for residential applications as well as light commercial application on low pressure gas distribution networks.



Residential users



Commercial users

| Features | Values |
|---------------------------------------|--|
| Measurement Range (Qmin - Qmax) | from 0.040 to 6 m ³ /h from 1.4 to 212 cfh |
| Minimum Flow rate (Qstart) | 0.01 m ³ /h 0.35 cfh |
| Maximum Operating Pressure* | up to 50 kPa up to 500 mbar |
| Pressure drop | ≤ 0.2 kPa @Qmax ≤ 2 mbar @Qmax |
| 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 IP55 (IP66 on request) |
| Power supplies and operating lifetime | Lithium batteries 15 years for metrological battery (non-replaceable). Up to 20 years for communication battery (replaceable) depending on remote communication interface |
| Remote communication interface | NB-IoT, GPRS (2G), RF WM-Bus @169 MHz |
| ATEX classification | II 3G Ex ic IIB T3 Gc |
| Gas volume compensation | Temperature compensated (TC) |
| Nominal dimensions | Connection distance – 110 mm Width 193 mm; Height 143 mm; Depth 104 mm |
| Connections | 1" 1/4 ISO 228, 1" ISO 228, 7/8" ISO 228 |

(*) REMARK: 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 | Zinc-coated pressed steel plate |
| Electronic enclosure | Plastic polycarbonate |

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

Table 2 Materials

The SSM-iCON is designed to meet OIML R137, EN 14236 and UNI/TS 11291. The product is certified according to European Directives 2014/32/EU (MID), 2014/34/EU (ATEX) and 2014/53/EU (RED).



OIML R137



EN 14236



UNI/TS 11291



ATEX



MID



RED

SSM-iCON competitive advantages



Temperature monitoring sensor



Advanced diagnostic



Integrated shut off valve



Emergency gas shut off for earthquake (optional)



Open communication protocol



15 years metrological battery



Up to 20 years communication battery life depending on radio interface installed



Extended life metrological battery option (20 years)



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