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On the product label:

MX-3000S
Gas Volume Converter
Pressure: (0.8 ... 5.2) bar
Temperature: (-25 ... +70) °C

2146500890
IP 66
Date: 2021
EU-type examination certificate:
TCM 143/21 - 5820
FTZU 21 ATEX 0024X
II 1G Ex ia IIB T4 Ga
II 2G Ex ib IIB T3 Gb
MPE ± 0.5 % (-25 ≤ T_amb ≤ +70) °C

CE M 21 1026 1383. 0678

Metrix Italia s.r.l. Via Nona Strada 53, 35129 Padova (Italy)
ATTENTION! Electrostatic hazard. Do not rub.

CE

MX-3000S

ELECTRONIC VOLUME CONVERTER
WITH INTEGRATED MODEM

MX-3000S

Description

MX-3000S is an ultra-flat and compact volume conversion device complete with integrated modem which is based on modern components ensuring precise volume calculation and measurement of pressure and temperature with high accuracy.

The MX-3000S gas volume conversion device belongs to the latest generation of modern gas volume converters designed for installation in hazardous areas. It is based on proven technology and takes full advantage of the architecture of modern processors with low energy consumption and high computing performance. MX-3000S has been designed to be easily mounted in small spaces and close to any type of pulse output meter, giving customers the ability to easily implement a high performance smart solution at a very competitive price. The original design allows the converter to be fixed on commercial and industrial membrane gas meters. The batteries can be replaced without breaking the metric seal. All information is available on an alphanumeric LCD combined with icons that clearly show all the measured data and the operating speeds of the device. The six keys on the keypad allow intuitive use of the device. MX-3000S is powered by two separate lithium batteries of which one battery is dedicated for volume conversion and the second ensures power to the modem.

The integrated modem allows remote transfer of stored data.

High accuracy and stability of temperature and pressure transducers guarantee without problems functioning for a long time. MX-3000S is designed to convert the volume of gas under operating conditions into volume of gas under standard conditions according to the equation of state. For this purpose, the converter reads the pulses from the meter and measures the temperature and pressure of the gas.

Basic features

- Certification in accordance with the European MID and Atex directives
- Designed to be installed in Zone 1 and 2 hazardous areas
- Complies with EN12405 -UNI-TS-11291 - ARG / GAS 155/08 standards
- Fully configurable device
- Alphanumeric LCD with backlit display
- Degree of protection of the enclosure IP 66
- Working temperature -25 ° C to + 70 ° C
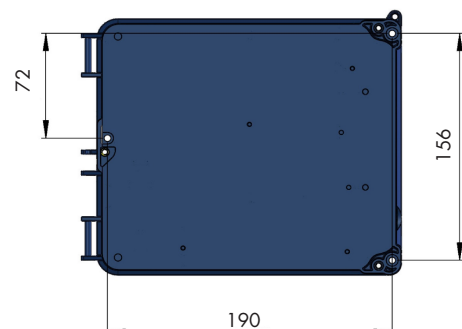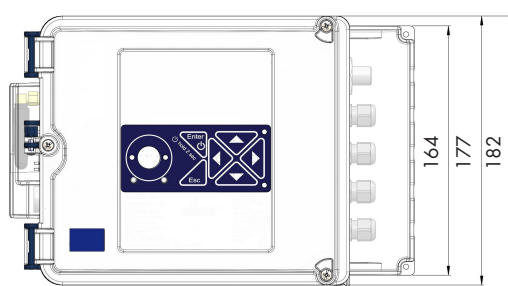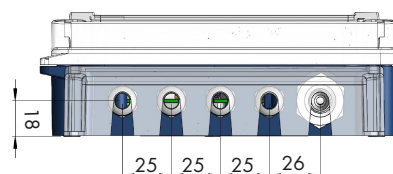- Different methods of calculating compressibility
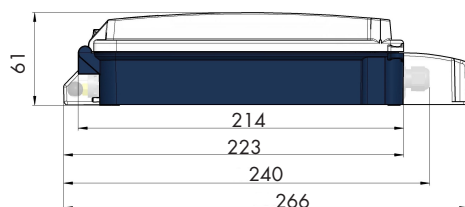- Remote firmware update

Communication

- Optical interface IEC 62056-21
- GPRS/SMS modem
- NB-IoT modem

Input/Output

- 3 Digital Input
- 2 Digital Output
- Up to 2 analog outputs with CL-O module (4-20mA)
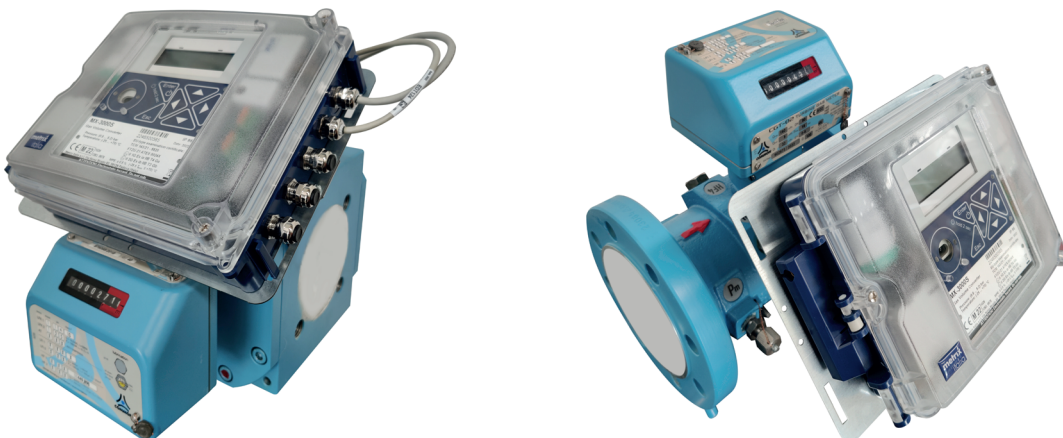
Dimensions (in mm)

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Technical data

Housing	Polycarbonate
Dimensions	234 x 182 x 61 mm
Weight	1,5 Kg
Protection class	IP 66 (EN 60529)
Working temperature	From -25°C to + 70°C
Control Panel	6-button keypad
Display	Backlit alphanumeric LCD display
Power supply	2 lithium battery packs: - Metrological battery life> 7 years under standard reference conditions GPRS modem battery life> 5 years under standard reference conditions NB-IoT modem battery life> 8 years under standard reference conditions
Temperature range	From -25°C to + 70°C
Standard pressure range (absolute, bar)	0,8 - 5,2; 2 - 10; 4 - 20; 7 - 35; 14 - 70
Accuracy	< 0,5 % measured value (MID) < 0,15 % average measured value
Communication interface	Optical interface IEC62056-21 GPRS/SMS or NB-IoT Modem MODBUS RS485 standard
Communication speed	Optical interface (IEC62056-21): adjustable from 9600 Bd to 115200 Bd
Digital Input	3 digital input (configurable as LF or binary)
Digital Output	2 digital outputs (configurable as pulse or binary output)
Analogic Output	Up to 2 analog outputs using external CL-O module: 4 - 20mA

Optional Accessories

Electric current regulation module (analogic output)	CL-O (4 – 20 mA)
Intrinsically safe communication interface	B-DO for digital outputs, B-RS for MODBUS communication
Optical port	Infrared port HIE-03 (RS-232), Infrared port HIE-04 (USB)

Typical installation on the meter

Product range

Rotary piston gas meters

Turbine gas meters

Gas pressure regulators

Electronic volume correctors

Diaphragm gas meters

Smart meters

Subject to change without notice - Ver. 11/2022

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