



## **HM10-16-25**

### **Hybrid Meter**

Smart Gas Meter for commercial connections 2014/32/UE (MID)

## HM series G10 – G16 – G25

### Classification and Area of Application

**HyMeter** is a hybrid technology commercial meter. It combines new generation electronical features with a diaphragm metering gear.

**HyMeter** mechanical register is now replaced by an electronic totalizer equipped with a data transmission device and a remote firmware upgrade function.

HyMeter **HM10-16-25** combines temperature and pressure sensors, that realizes the compensation of the measured gas volume.

The logo consists of the letters 'HM' in white, bold, sans-serif font, centered within a teal square.

### Hybryd Meter HM...

**HM** series is designed to meet the requirements of the **Natural Gas Distribution** according to EU community laws.

### Tradition, Reliability, Innovation

#### TRADITION AND RELIABILITY

The primary element is formed by the consolidated, reliable and stable measurement principle of known volume (cyclic volume) through chambers by diaphragm separated chambers.


#### INNOVATION

The high modularity of the product allows to meet the market demands. This feature allows effective and simple field operations such as maintenance, calibration and replacement of the main components.

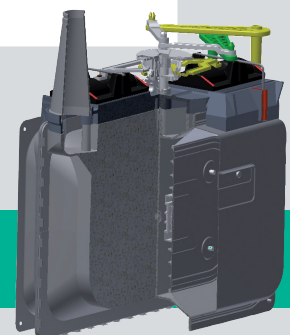
A double thermowell and a pressure intake valve equipped with supplementary 1/8 " connection are available for comparison and verification with the Master tool.

These features are aimed to contain management and post-installation costs.

## MAIN FEATURES

- Electronics Volume conversion according to EN 12405 (PTZ both PT) and ISO 12213-3
- Approval according to directive **2014/32/UE MID ; MI-002**
- MID Certified by NMI Certin B.V.
- According to European standard **EN 1359:1998 e OIML R137-1 & 2:2012** (the last for VB version only)
- **ATEX Approved** for installation under **Zone 1**  II 2G Ex ib c IIB Gb
- **IP65** protection class
- Metrological temperature: **-25°C ÷ +55°C**
- Max operating pressure: **500 mbar**
- Standard working dimensions to replace outdated meters
- Metrological module **lithium battery: guaranteed measurement up to 15 years**
- **Lithium-thionyl chloride battery** communication module: **battery life > 5 years**
- LCD Electronic totalizer with “User Friendly” interface
- Multi-function button for user interface
- Optical interface configuration according to **IEC Standard 61107**
- **GSM/GPRS** communication card (Wireless M-Bus 169MHz or 868MHz on demand)
- Standard communication protocols: **CTR R131**
- Remote firmware upgrades according to **WELMEC 7**
- Pulse/serial volume transmission to the end user
- According to **ARG155/08** (and s.m.i.) and **UNI-TS11291** (for Italian market)

Measuring principle based on the **reliable**  
and **consolidated diaphragm technology**.



## MODULARITY

**HM** series devices are designed and manufactured for maximum modularity.

- Metrological module with dedicated battery power (>**15 years battery life in STD conditions**)
- GSM / GPRS communication module with dedicated battery power (**5 years battery life in STD conditions**)
- LCD display user interface and “User Friendly” icons with single button browser
- External pressure and temperature sensor modules to allow maintenance, calibration, replacement and any other check with no interruption of gas delivery to the end user
- Electronic module replaceable without data loss

## Models

**HM** series devices can be supplied in two configurations:

### HM10/16/25

- HM 10/16/25 is a MID-approved CONVERTER + METER device and therefore configured as PTZ (or PT). The display will show both measured volumes (Vm) and base conditions volumes (Vb)
- **HM10/16/25 – version M**  
HM 10/16/25 M is a MID-approved METER and displays only base conditions volume (Vb).



**HM - 10M**



**HM - 16M**



**HM - 25**

**Fig.1**

## HMCom Module

The **HMCom** module is an EX-i modem that allows communication with distributor's data acquisition centre.

**HMCom GSM/GPRS** module is a standard supply and it is already on **HM**.

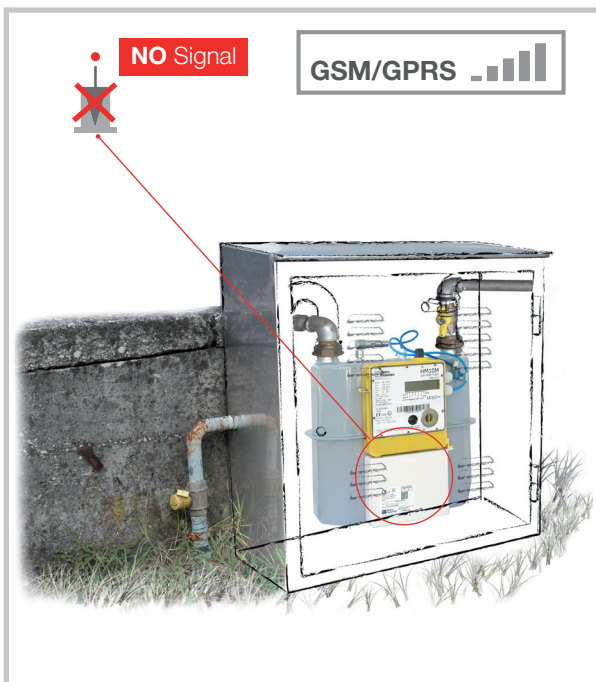
**HMCom** is available on request with a built-in radio communication module using **169MHz** or **868MHz** frequencies.



**HMCom**

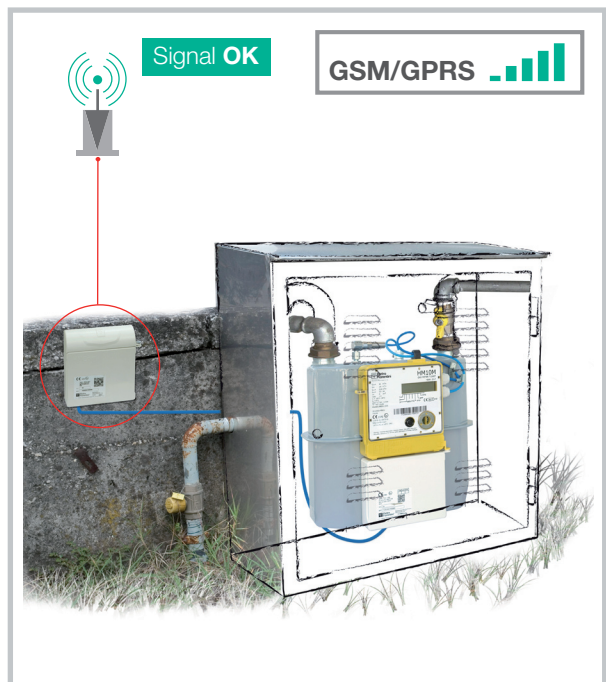
**Fig.2**

**HMCom can be replaced** and **can be used remotely** in case of insufficient signal **without damaging metrological seals**.



**HMCom** - Local Solutions

**Fig.3**



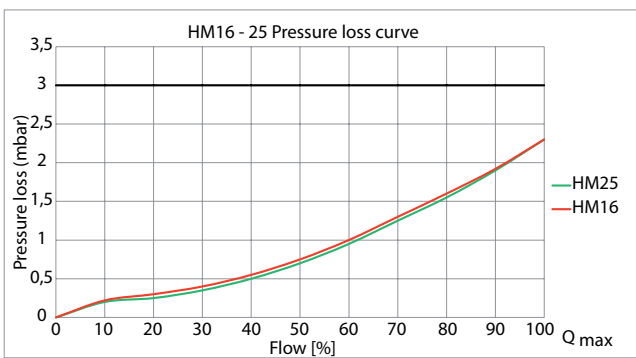
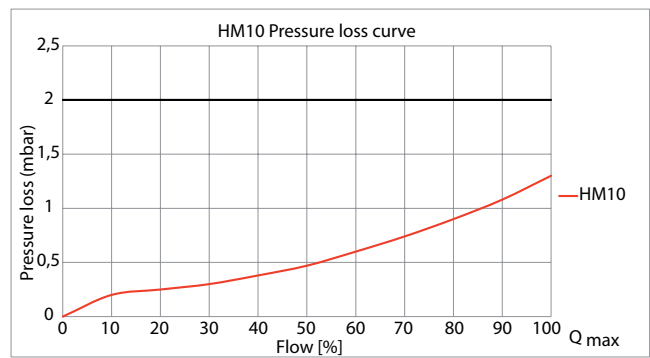
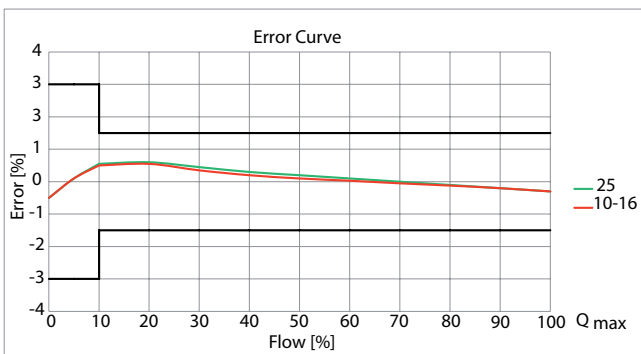
**HMCom** - Remote Solutions

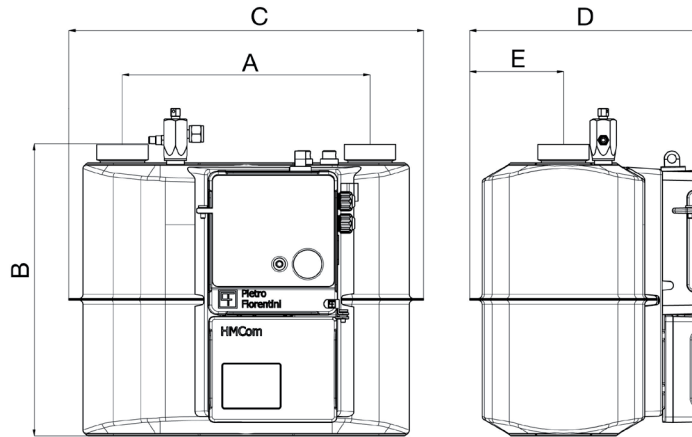
**Fig.4**

## TECHNICAL DATA

Model		HM 10	HM 16	HM 25
Cyclic volume	[dm <sup>3</sup> ]	6	6	12
Maximum flow rate	[m <sup>3</sup> /h]	16	25	40
Minimum flow rate	[dm <sup>3</sup> /h]	100	160	250
Maximum working pressure	[bar]	0,5		
Maximum admitted errors	$Q_{min} \leq Q < 0,1Q_{max}$	± 3%		
	$0,1Q_{min} \leq Q \leq Q_{max}$	± 1,5%		
Working temperature range	[°C]	-25 ÷ + 55		

Tab.1



**DIMENSIONS AND WEIGHT**

**Fig.2**
**Dimensions and Weight**

Overall dimensions in mm				
	HM10		HM16	HM25
<b>A</b>	250	280	280	335
<b>B</b>	310	340	340	398
<b>C</b>	320	402	402	465
<b>D</b>	195	233,5	233,5	336
<b>E</b>	85	103	103	138
<b>Connection - inch</b>	1" 1/4	2"	2"	2"1/2
				Tab.2

Weight Kg				
	6,5	7,7	7,7	11,5
				Tab.3

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The data are not binding. We reserve the right to make changes without prior notice.

