



A Cavagna Group Company

# PRODIGI



## Ultrasonic Smart Gas Meter

### A Game Changer for LPG & Natural Gas Marketers

- ⦿ Monitors consumption remotely
- ⦿ Provides a familiar customer interface similar to other utilities
- ⦿ Helps to optimize gas deliveries
- ⦿ Adds control to overall storage efficiency



## Accuracy & Durability

### Ultrasonic Flow Sensor

The Prodigy uses an innovative high-performance **ultrasonic sensor** by Panasonic, designed to accurately measure the volume of **LPG/Natural Gas**. By using a **static measurement technology**, without moving mechanical components that wear out over time, it guarantees:

- minimum pressure loss
- high level of accuracy

### Stainless Steel Body

The Prodigy is a durable and safe solution. Its **IP65 protection grade** and the corrosion-resistant, fully welded, **stainless steel casing** ensure it can withstand the external agents.



### Step-motor Valve

Thanks to the Prodigy's **step-motor valve** by Panasonic, located after the gas inlet, it is possible to **monitor customers' consumption** and, if necessary, **even shut off the gas supply remotely**. That eliminates the need to physically send a service technician to the location in order to manually shut off the gas flow. Remote gas metering enables gas companies to better plan their internal operations and manage interventions in an optimised way, allowing their employees to work more efficiently and safely.

## Ultrasonic Gas Meter

### Local User Interface



- 1 LCD Display screen with the volume displayed in cubic feet or meters to 3 decimals and with specific icons\*.

\*The list of icons is available on request

- 2 2 capacitive buttons to navigate through recorded values.

**Right Button:** To scroll through screens

**Left Button:** To activate specific functions



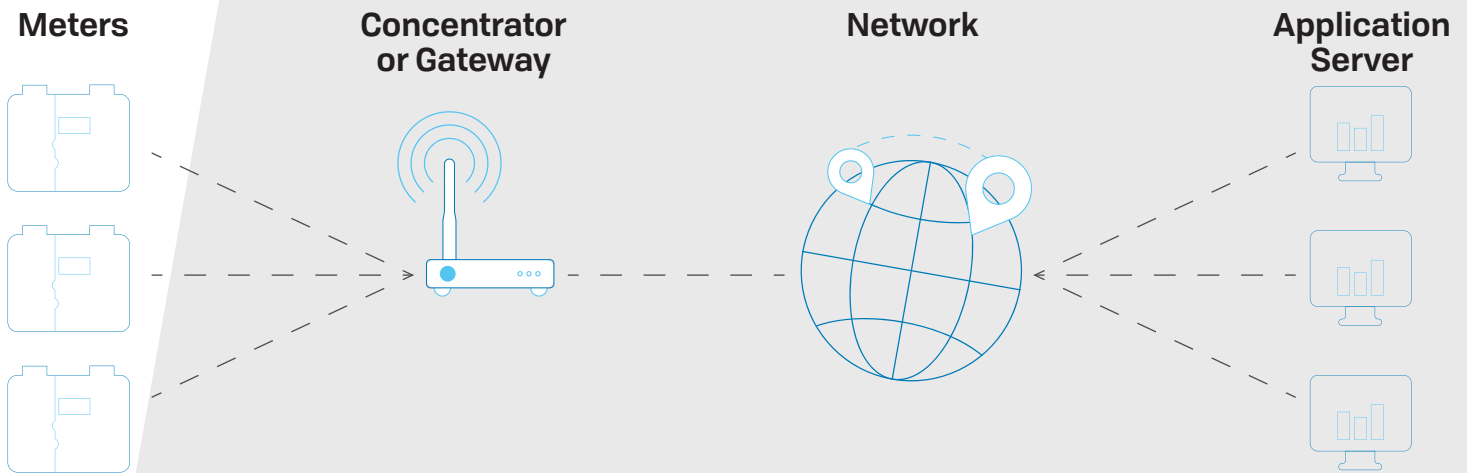
# Communication

The Prodigy does not simply measure gas flow: its great flexibility and versatility are also expressed by its communication capabilities. Prodigy communicates data to the gas company, allowing to maximise its resources, and guarantee a reliable, accurate and efficient service.

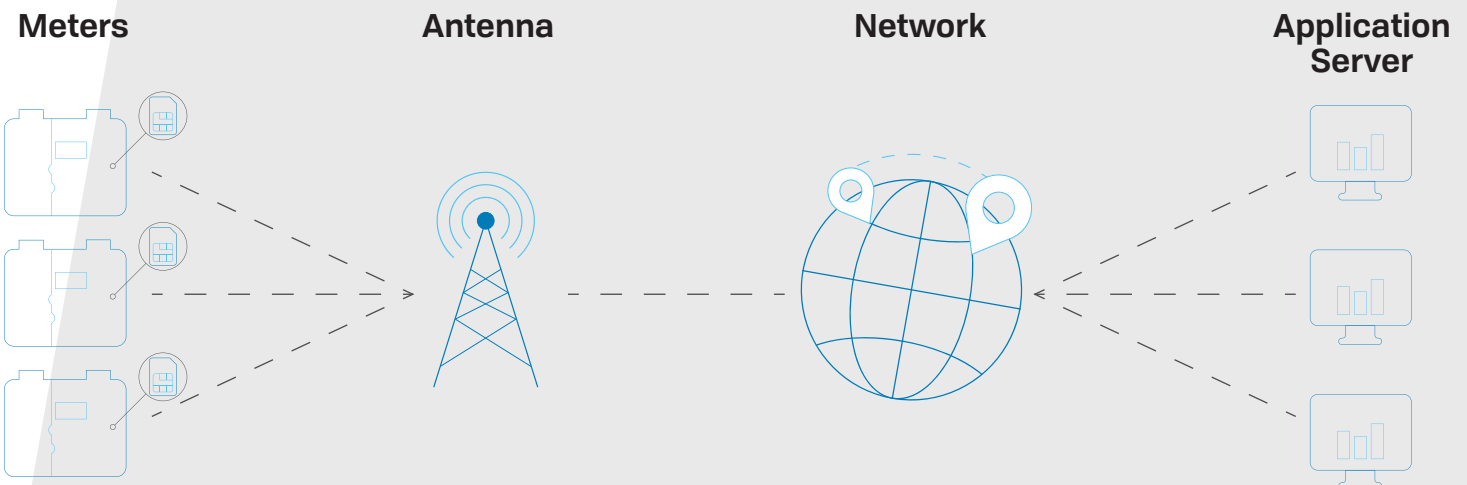
## How does it work?

- 1) **Gas Measurement.** The gas flow is measured as it passes through the ultrasonic sensor.
- 2) **Values encryption.** The measured values are encrypted and decrypted by standard communication protocol through Device Language Message Specification (DLMS).
- 3) **Data transmission.** The measurement signals are then stored until the Prodigy communicates the values to OTUS (Cavagna Group’s asset management platform) using **RF 169 MHz, GPRS 2G, LoRaWAN, NB-IoT or LTE CAT-M Communication**. This data transmission happens electronically, without the need of someone physically reading the meter.

## RF 169 MHz / LoRaWAN



## GPRS 2G / LTE CAT-M / NB-IoT



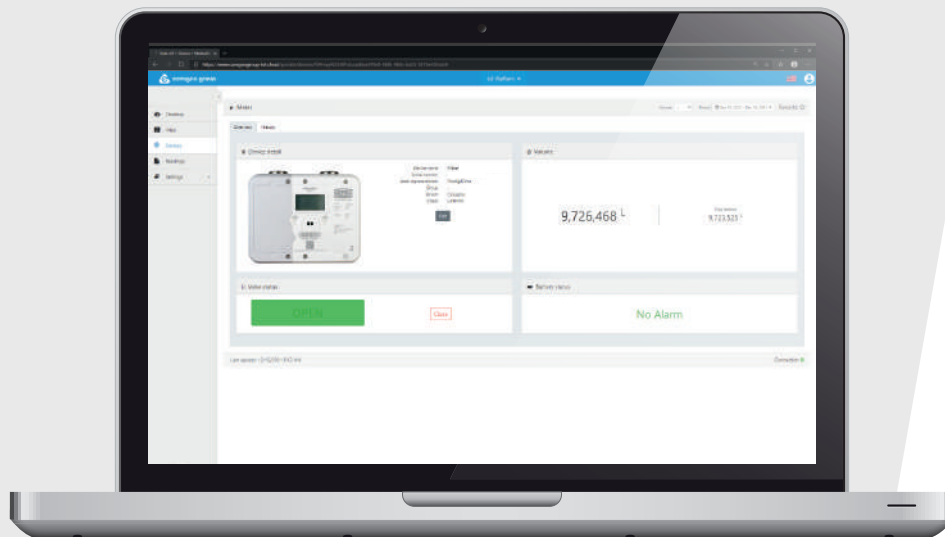
# OTUS

The Cavagna Group Digital Platform

OTUS acts as a collection centre for all of the information that Prodiggi is able to acquire and transmits in an **encrypted form**.

OTUS is a **cloud based platform** that allows you to:

- ⊙ Remotely close the shut-off valve
- ⊙ Automatically calculate the monthly consumption of each meter
- ⊙ Collect historical data of gas consumption
- ⊙ Create personalized reports and download them in either PDF or CSV format
- ⊙ Perform an analysis of historical consumption trends
- ⊙ Place the device in your own map

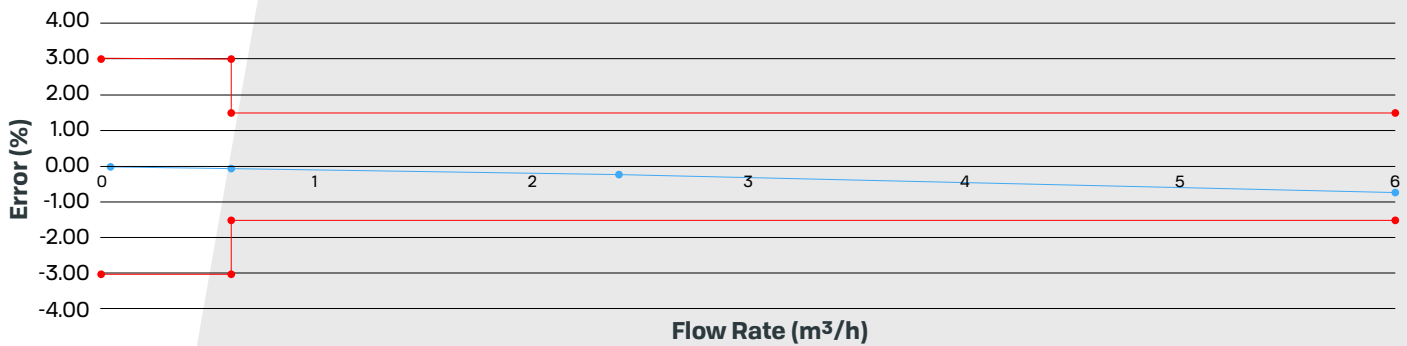


**Easy remote monitoring  
thanks to the Cavagna  
Group Digital Platform**

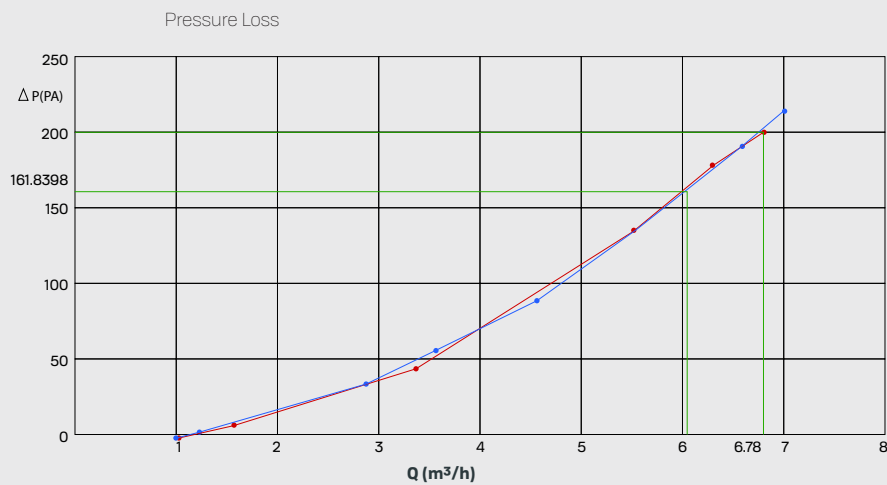
# Ultrasonic Gas Meter

## Performance Ultrasonic Smart Meter

### Accuracy Curve



### Pressure Loss Curve



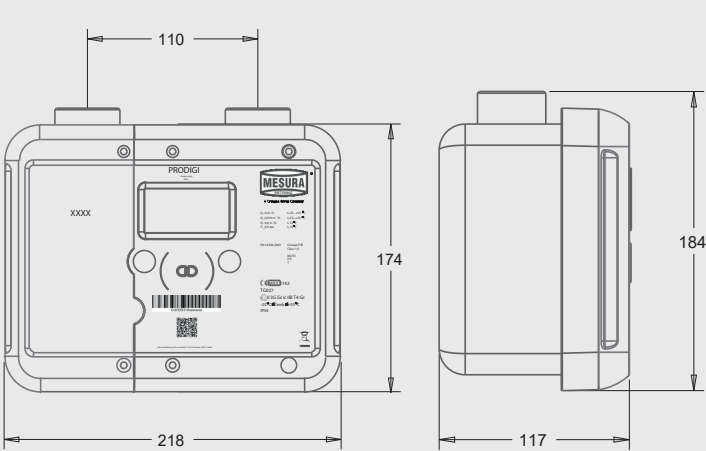
# Ultrasonic Gas Meter

## Technical Features

<b>Accuracy Class</b>	1,5
<b>Capacity</b>	0,016-6 m <sup>3</sup> /h (G1.6-G2.5-G4)
<b>Measuring Gas</b>	LPG/Propane/Butane/Natural Gas
<b>Maximum Operating Pressure</b>	0,3 bar (LPG/Propane/Butane) - 0,5bar (Natural Gas)
<b>Working Temperature</b>	-25°C ÷ +55°C
<b>Temperature at base conditions</b>	15°C
<b>Load Loss</b>	≤ 2 mbar
<b>Humidity</b>	95%
<b>Connection threads</b>	1"1/4 ISO 228**
<b>Casing Material</b>	Stainless Steel
<b>Protection Grade</b>	IP65
<b>Local Interface</b>	Infrared optical door ZVEI in accordance to norm EN 62056-21
<b>Communication Protocol</b>	In accordance with UNI TS 11291-11/-12 DLMS/COSEM
<b>Atex</b>	Zone 2 II 3G Ex ic IIB T4 Gc
<b>Battery Life</b>	Metrologic battery: 15 years Communication battery (replaceable through the cover)*

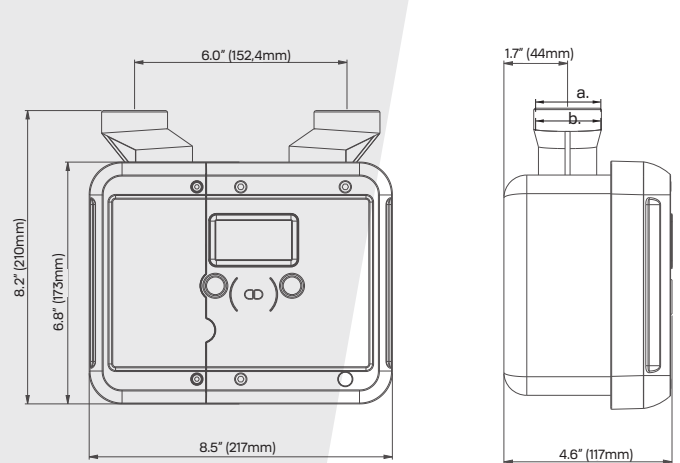
\*According to the working conditions  
\*\*Connectors available for 3/4" and 7/8"

## Overall Dimensions



Weight: 2 kg

## Other versions upon request



Threads Fittings: (a) USA version (LTE CAT-M/NB-IoT): 20LT  
(b) UK version: 1" BSP



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4MM1842E – Rev.7.0 ENG – 04/22

## Product Codes for the European Version

Name	Gas Measured	Communication Protocol	Meter Class	Product Code
PRODIGI RF16	Natural Gas	RF 169 MHz (only for Italian market)	G1.6	99F3900004
PRODIGI RF25			G2.5	99F3900005
PRODIGI RF40			G4	99F3900006
PRODIGI GPRS		GPRS 2G	Extended Range*	99F3900007
PRODIGI GPRS16			G1.6	99F3900008
PRODIGI GPRS25			G2.5	99F3900009
PRODIGI GPRS40		G4	99F3900010	
PRODIGI NB-IoT		NB-IoT	Extended Range*	99F3900011
PRODIGI NB-IoT16			G1.6	99F3900013
PRODIGI NB-IoT25			G2.5	99F3900015
PRODIGI NB-IoT40			G4	99F3900017
PRODIGI LORA1		LoRaWAN 868MHz- 915MHz	Extended Range*	99F3900012
PRODIGI LORA16			G1.6	99F3900014
PRODIGI LORA25			G2.5	99F3900016
PRODIGI LORA40			G4	99F3900018
PRODIGI RF GPL		LPG Propane Butane	RF 169MHz	Extended Range*
PRODIGI GPRS GPL	GPRS 2G		Extended Range*	99F3900003
PRODIGI LORA1 GPL	LoRaWAN 868MHz-915MHz		Extended Range*	99F3900020
PRODIGI NB-IoT GPL	NB-IoT		Extended Range*	99F3900021

\*Extended Range: flow rate from 0.016-6 m<sup>3</sup>/h