



## Sonix 12, Sonix 16 and Sonix 25 Metric Gas Meters



### Introduction

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Invensys Metering Systems is one of the leading global exponents of the design, manufacture and supply of metering solutions to gas, water and electricity utilities.

Invensys look beyond the simple physical metrological needs of its customer base, by supplying cutting-edge, technology-driven solutions. The Invensys product portfolio encompasses all aspects of measurement, accuracy, data collection, automated meter reading (AMR) and more importantly the in-built provision of added value intelligence.

The Gas Products range includes Diaphragm, Ultrasonic and Turbine meters, designed to meet the exacting needs of utilities worldwide. Invensys has incorporated the latest systems of automation and electronic testing to ensure a high standard of quality control and meter accuracy.

The Sonix range of ultrasonic meters offers a superior level of metering performance across all currently required parameters with integral features to meet future demands of the Invensys client base.

## Features

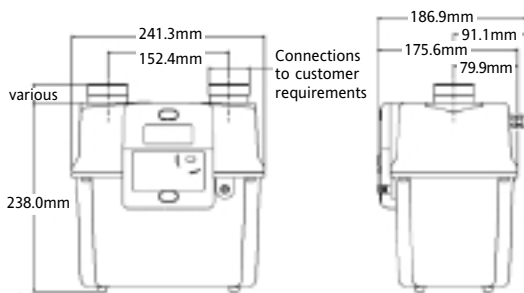
The Sonix 12, 16 and 25 gas meters are members of the Invensys range of ultrasonic gas meters, for use on Natural Gas, having flow capacities of 12 m<sup>3</sup>/h, 16 m<sup>3</sup>/h and 25 m<sup>3</sup>/h respectively.

The Sonix 12, 16 and 25 gas meters are designed to suit the needs of the commercial and light industrial market and they offer significant advantages over conventional diaphragm meters, including:

- Improved accuracy
- Effective elimination of accuracy drift with time and temperature
- Compact size
- 11.5 year battery life
- 20 year meter life
- Reduced through life costs
- No moving parts
- Logs data hourly and has a capacity of 60 days of data stored in EEPROM
- Stored data comprises meter index, operational and diagnostic information
- Temperature conversion
- Fixed factor pressure conversion

### Optional Features:

- Pulsed output interface
- Imperial display units also available



For pulse output version the recommended clearance required at the back of the meter for the output cable is 105mm from the centre line of the gas connections

## Standards

The Sonix 12, 16 and 25 gas meters are designed in accordance with the following standards:

### Construction and Performance

Construction to relevant sections of  
OIML R6:1984 General Provisions for Gas Volume Meters  
ANSI B109.2 Diaphragm Type Gas Displacement Meters

### Electrical Safety

BS EN 50020:2002 Electrical apparatus for potentially explosive atmospheres - intrinsic safety 'i'  
ATEX directive 94/9/EC  
CAN/CSA - C22.2 NO 157 - 92 Intrinsically Safe and Non-incendive Equipment for Use in Hazardous Areas

### EMC

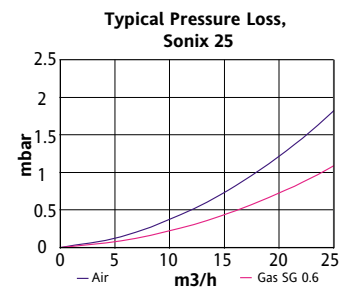
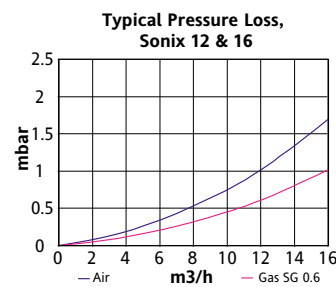
BS EN 50082-1:1998 EMC - Generic Immunity Standard, Residential, Commercial and Light Industry  
OIML R6:1984 General Provisions for Gas Volume Meters

### Communications

BS EN 61107 1996, Data Exchange for Meter Reading, Tariff and Load Control - Direct Local Data Exchange

### Ingress Protection

BS EN 60529:1992, Specification for Degrees of Protection Provided by Enclosures IP55



## Sonix 12

## Sonix 16

## Sonix 25

TECHNICAL DATA	Rated capacity Q max	12 m <sup>3</sup> /h	16 m <sup>3</sup> /h	25 m <sup>3</sup> /h
	Rated capacity Q min	0.08 m <sup>3</sup> /h	0.10 m <sup>3</sup> /h	0.16 m <sup>3</sup> /h
	Typical accuracy	0.08 m <sup>3</sup> /h to 1.2 m <sup>3</sup> /h ±2%	0.10 m <sup>3</sup> /h to 1.6 m <sup>3</sup> /h ±2%	0.16 m <sup>3</sup> /h to 2.5 m <sup>3</sup> /h ±2%
		1.2 m <sup>3</sup> /h to 12.0 m <sup>3</sup> /h ±1%	1.6 m <sup>3</sup> /h to 16.0 m <sup>3</sup> /h ±1%	2.5 m <sup>3</sup> /h to 25.0 m <sup>3</sup> /h ±1%
	Temperature range	Operating -35°C to +55°C (subject to metrological approval)		
	Display	Can be set to display a temperature and/or fixed factor pressure converted index		
	Pressure drop	Less than 2mbar with air at 12 m <sup>3</sup> /h, 16 m <sup>3</sup> /h and 25 m <sup>3</sup> /h respectively		
	Pressure rating	Maximum operating pressure 1.4 bar		
	Speed of sound range	300m/s to 500m/s		
	Weight	5.0kg		
	Power supply	Replaceable lithium thionyl chloride battery 3.6V 'D' cell battery pack		

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