

FIT1225 Ultrasonic Gas Flow Meter

Description

The FIT1225 is the insertion model of the ultrasonic gas flow meter specifically developed for large flare pipes and stacks. Insertion probe design overcomes inherent difficulties of conventional non-intrusive wetted designs caused by the low signal level at long ultrasonic paths and signal blow-out at high gas velocity.

The FIT1225 utilizes the proprietary ultrasonic transit-time measurement with minimum detectable gas velocity of 1cm/s. The insertion probe meter is provided in several options including the multi-probe version for better accuracy, retractable probe version, etc.



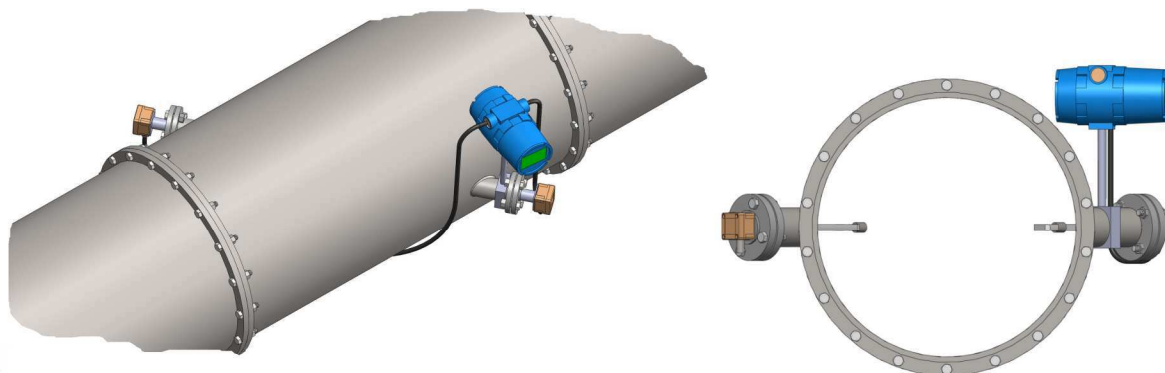
Features

- Lowest minimum detectable velocity of $V_{min}=0.01\text{m/s}$
- Very large pipe diameters
- Wet and dry flare gases
- Flue gases up to 250C with high particulates content



FIT1225

Ultrasonic Gas Flow Meter



Specifications

Transducer Type	Ultrasonic, wetted, intrusive
Operating Principle	Transit-time measurement
Transducer Material	SS 316
Cable Length	10m (30ft), maximum 30m (100ft)
Performance Characteristics	
Velocity Range	0.01 to 100 m/s (0.03 to 330 ft/330)
Accuracy	±1.5% to ±3%, up to ±0.5% in multipath version
Repeatability	Better than 1%
Measurement Parameters	Standard and actual volume flow, totalized volume flow, pressure, temperature, gas velocity
Operating Conditions	
Pipe Diameter	from 15 cm (6")
Minimum Pipe Length	10D (upstream) & 5D (downstream)
Process Temperature	-40°C to +250 °C (-40°F to 485°F)
Process Pressure	0.5 barA to 20 barA (7 psiA to 300 psiA)
Presence of Liquids	Not affected
Mechanical Characteristics	
Design	Insertion probe, 3" flanged connection, optional 3" ball valve
Transducer Mount	Optionally retractable with 3" ball valve
Length	Measuring path from 15 cm (6") to 30 cm (12")
Electrical Characteristics	
Supply Voltage	24VDC (20-32 VDC)
Power Consumption	5W (max)
Inputs	Two 4-20 mA for external pressure and temperature sensors
Outputs	Digital-ModBUs, HART, analog 4-20mA
Hazardous Area Approval	CSA/UL Class 1, Div.1, Group ABCD T4