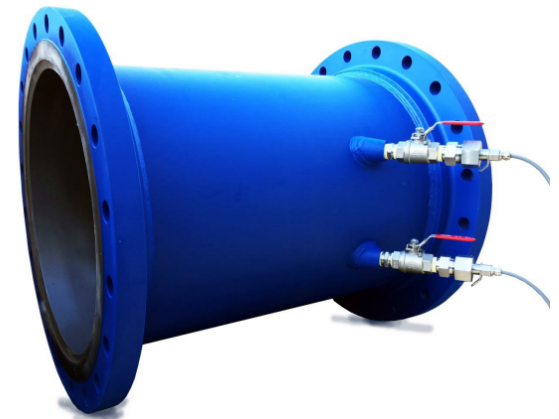


FF1225 Ultrasonic Gas Flow Meter

Description

The FF1225 ultrasonic gas flow meter is focusing on flare gas applications which are cost sensitive. Attempts on cost saving stimulate some users to installation of target flow meters, thermal dispersion mass flow meters, Pitot tubes or other simplified solutions. That usually ends up by the need of replacing the meters.

The FF1225 is based on proprietary ultrasonic transit-time measurement with minimum detectable gas velocity of 1cm/s. The flow meter is supplied in several options including the multi-path version when flow uncertainty less than 1% is required.



Features

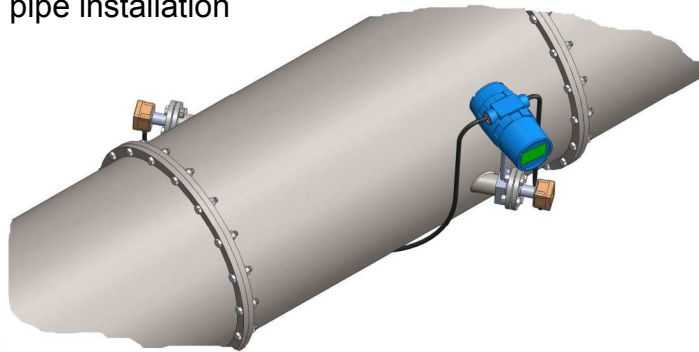
- Lowest minimum detectable velocity of $V_{min}=0.01\text{m/s}$
- No pressure drop
- Immunity to gas composition
- Volumetric and molecular & mass flow measurement



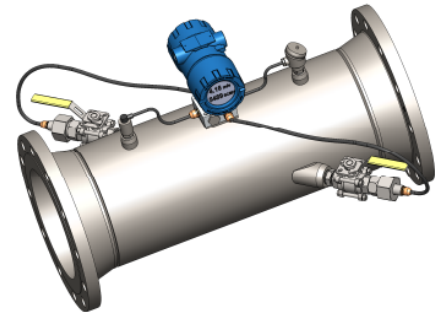
FF1225

Ultrasonic Gas Flow Meter

FF1225 on pipe installation
Pipe 24"



FF1225 -10
Spool 10"



Specifications

Transducer Type	Ultrasonic, wetted, non-intrusive, in-line
Operating Principle	Transit-time measurement
Transducer Material	SS 316
Cable Length	10m (30ft), maximum 30m (100ft)
Performance Characteristics	
Velocity Range	Regular from 0.02 to 85m/s (0.05 to 250ft/s), extended 0.01 to 135m/s (0.03 to 400ft/s)
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, molecular weight, mass flow, pressure, temperature, gas velocity
Operating Conditions	
Pipe Diameter	8 cm to 200 cm (3" to 80")
Recommended Pipe Length	10D (upstream) & 5D (downstream)
Process Temperature	-40°C to +135°C (-40°F to 275°F)
Process Pressure	barA to 20 barA (7 psiA to 300 psiA)
Presence of Liquids	Not affected
Mechanical Characteristics	
Design	Pipe mount, NPT or flanged connections
Transducer Mount	Retractable
Length	Depending on pipe diameter, typical arrangement is 45-degree to the flow
Electrical Characteristics	
Supply Voltage	24VDC (20-32 VDC)
Power Consumption	3.5W (max)
Inputs	Two 4-20 mA for external pressure and temperature sensors
Outputs	Digital-ModBUs, analog 4-20mA, pulse-frequency, HART (optional)
Hazardous Area Approval	CSA/UL Class 1, Div.1, Group ABCD T4