

FC1223 Ultrasonic Gas Flow Meter

Description

The FC1223 gas flow meter is specifically developed for flare gas and associated gas flow measurement where conventional ultrasonic gas flow meters are experiencing problems due to high turbulence or presence of liquids. The FC1223 is an efficient gas accounting system which brings together high performance, reliability, and low cost. The design is based on proprietary ultrasonic transit-phase measurement method with in-line positioning of transducers (no beam reflections). Besides volumetric flow, the "M" version, model FC1223-M, additionally offers molecular weight & mass flow measurement



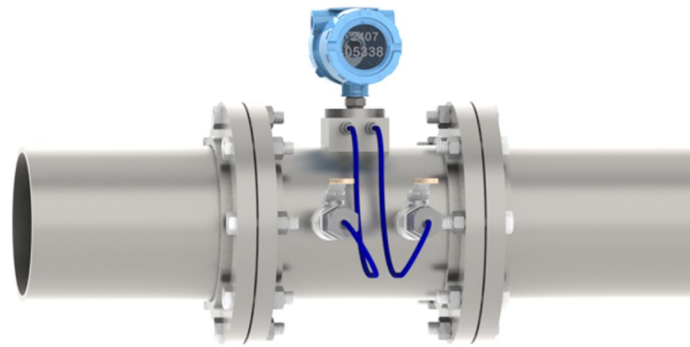
Features

- Not affected by presence of liquids
- Reliable operation in short piping
- High tolerance to heavy deposits
- Volumetric and molecular & mass flow measurement
- No pressure drop



FC1223

Ultrasonic Gas Flow Meter



Specifications

Transducer Type	Ultrasonic, wetted, non-intrusive, in-line
Operating Principle	Transit-phase measurement
Transducer Material	SS 316
Cable Length	10m (30ft)
Performance Characteristics	
Velocity Range	0.10 m/s to 175 m/s (0.3ft/s to 85 ft/s)
Accuracy	+/- 1.5% to 3%
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	0.05m to 2.0m (2" to 80")
Minimum Pipe Length	6D (upstream) & 3D (downstream)
Process Temperature	-40°C to +135°C (-40°F to +275°F)
Process Pressure	8.7 psia to 167 psia (0.6 barA to 11.5 barA)
Presence of Liquids	Not effected
Mechanical Characteristics	
Design	FC1223 – installed on pipe, four 1" weldolets, beam spacing 120 to 150mm FC1223-SP – spool type, flanges ANSI 150, Pipe SCH. 40, Material SS 316 Retractable, 1" Ball Valve, 1" NPT Weldolets
Transducer Mount	40cm (pipe sizes from 2" to 16"), 50cm (pipe sizes above 16")
Length (Model FC1223-SP)	
Electrical Characteristics	
Supply Voltage	24VDC (20-32 VDC)
Power Consumption	5W (max)
Inputs	Two 4-20mA for external pressure and temperature sensors
Hazardous Area Approval	CSA/UL Class 1, Div.1, Group ABCD T4