Thermal Mass Flowmeter

CTMD



GAS



OVERVIEW

Operation

CTMD provides high quality In-Line and Insertion Thermal Mass Flow Meters for a wide variety of industrial, commercial, and environmental monitoring needs. Our experienced application engineers, many of whom have worked in the Thermal Mass Flow marketplace since its inception, will assist you with your flow meter application.

Application

- Air injection
- Air purging
- Blow molding air
- Blower air
- Drying air flow
- Combustion gas flow
- Vent air flow

Features

- Simple Installation
- High performance
- Bi-directional
- Sensing unit
- Easy installation
- Easy configuration and maintenance
- TFT graphic multicolor display
- Long term stability
- Compact design
- Built-in Datalogger
- No moving parts
- Simple calibration
- Easy adaptation various applications and processes
- Inovating sensor technology
- Optional, pressure measurement

OPERATING DATA

Working Pressure	Max. 16 Bar for insertion type Max. 40 Bar for in-line type
Temperature Limit	-40°C...+150°C -40°C...+300°C on request
Turn Down Ratio	150:1
Accuracy	±1,5 % of reading + ±0.3 % of full scale ±1,0 % of span for pressure ±2°C of temperature
Enclosure	IP65 / IP67,IP68 on request
Display	TFT LCD Temperature, pressure, rate and total flow in one screen
Units	
Flow	m³/h, m³/min, l/min, l/s, ft/min, cfm, m/s,kg/h, kg/min, g/s, lb/min, lb/h
Pressure	mbar, psi, bar
Temperature	°C, °K
Sliding Fittings	G 1/2", G 3/4"

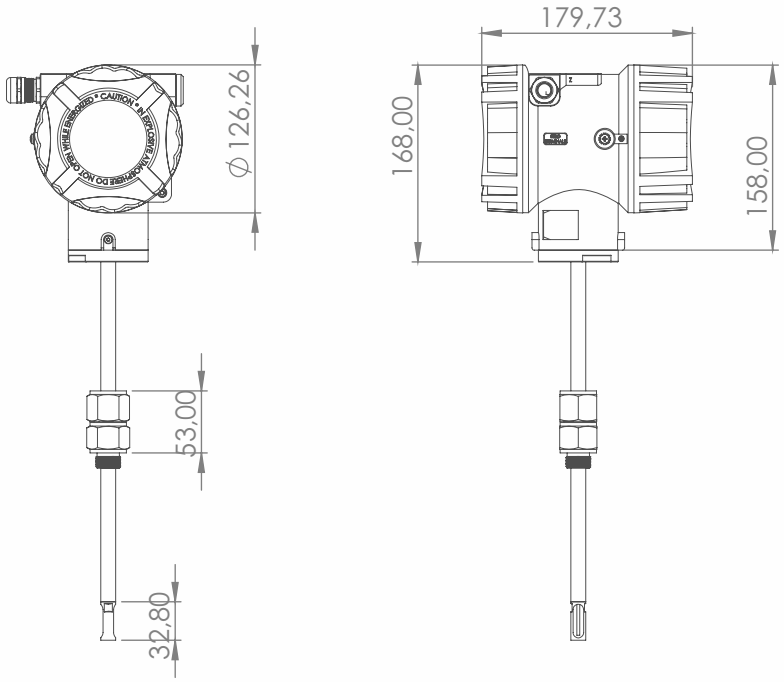
MEASURING RANGES

Pipe Diameter	DN25-900 mm for insertion type (bigger pipe on request) DN15-300 mm for in-line type
Flow Velocity Range	0,6-60 Nm/s 1,0-100 Nm/s 1,2-120 Nm/s 1,5-150 Nm/s

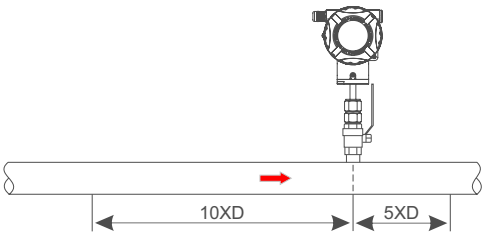
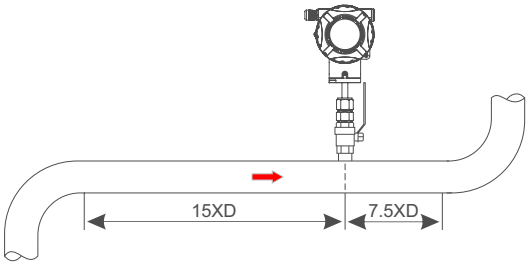
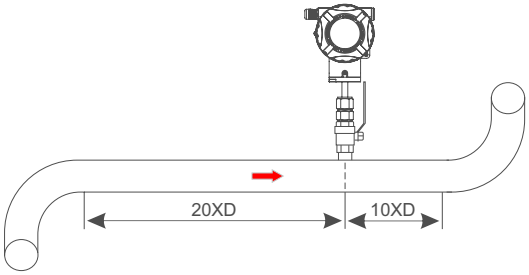
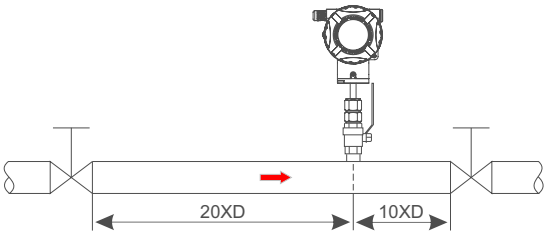
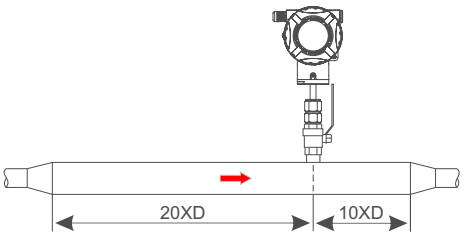
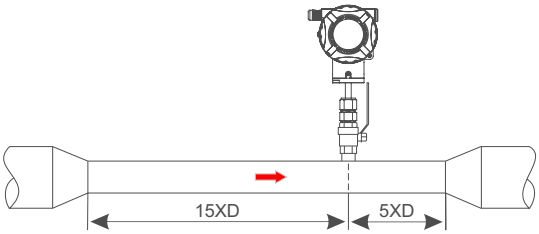
MATERIALS

Wetted Parts	Stainless steel, plastic, aluminum

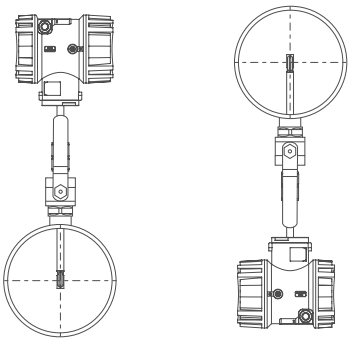
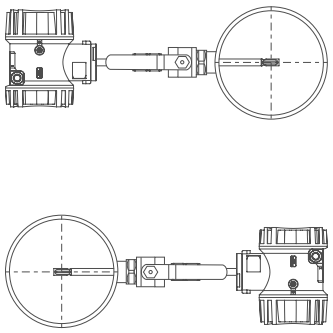
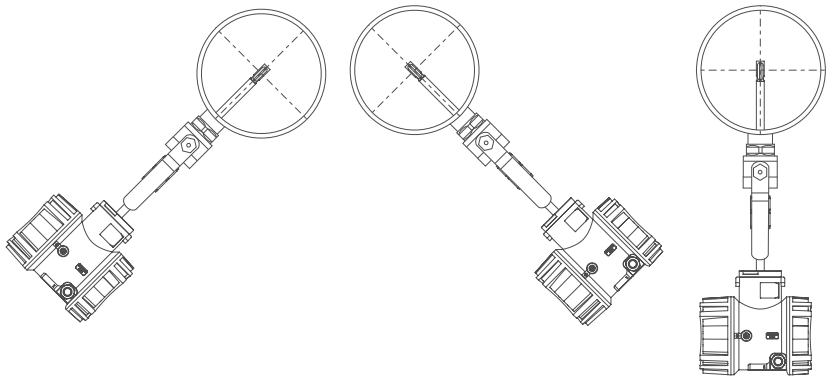
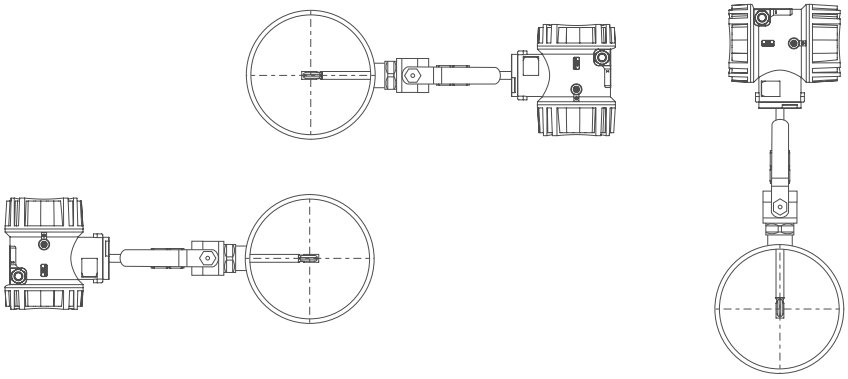
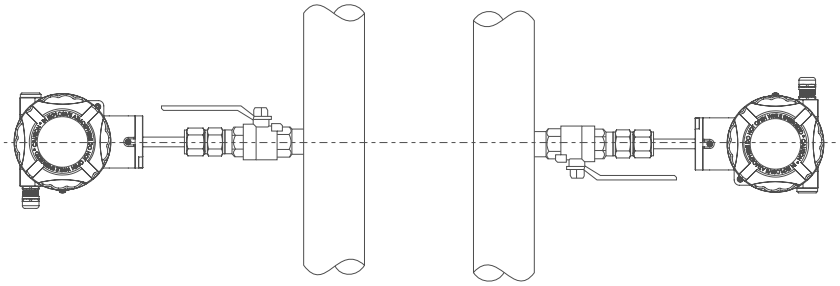
TECHNICAL DRAWINGS AND DIMENSIONS



INSTALLATION

Standard	
Curved pipe line in the upstream or downstream	
Curved pipe line that may creat turbulence in the upstream or downstream	
There are valves or pressure controller or any other device may cause turbulence in upstream or down stream of the flowmeter	
If the pipeline of the flowmeter is upsized	
If the pipeline of the flowmeter is downsized	

Requirement on straight pipe line

On a horizontal pipeline, normal air or gas	 Above or under the pipeline  Side of the pipeline
On a horizontal pipeline, high humidity air or wet natural gas	 45° under the pipeline or just under the pipeline  On the side of the pipe. Do not recommend to install the meter above the pipeline
On a vertical pipeline, when the density of the gas is higher than air	

Requirement on Insertion Direction

WIRING

Power Supply	24 VDC
Output	Pulse and 4-20 mA, 0-10 VDC
Communication	RS485 Modbus,ethernet,HART on request
Display	Rate and total flow, pressure and temperature
Response Time	1 sec.
Datalogger	24 hour storage (On request)

ORDERING

CTMD										Thermal Mass Flowmeter
Design	IT									Insertion Threaded
	IF									Insertion Flanged
	IN									Inline
Pipe Size		XXXX								Please specify as unit is mm
Output			A							4-20 mA, pulse
			B							0-10 VDC, pulse
Communication				R						RS-485 MODBUS
				E						Ethernet
				H						HART
				X						Others
Media					A					Air
					N					Nitrogen
					O					Oxygen
					C					Carbondioxide
					D					Natural gas
					X					On request
Range Type						L				Low flow range (0,6-60 Nm/s)
						S				Standard flow range (1,0-100 Nm/s)
						H				High flow range (1,2-120 Nm/s)
						U				Ultra high flow range (1,5-150 Nm/s)
Enclosure							65			IP65
							67			IP67
							68			IP68
Pressure Measurement								N		None
								Y		Yes
Datalogger									N	None
									Y	24 hours storage
Bi-directional measurement										N None
										Y Yes
Connection										1 G 1/2"
										2 G 3/4"

Bass Ölçme Enstrumanları Ltd. Şti.
Esenşehir Mahallesi Füsun Sokak No.59 Ümraniye 34776 İstanbul/TÜRKİYE
Tel.+90 216 660 01 63-64 ● Fax +90 216 660 01 65 ● bass@bass.com.tr ● www.bass.com.tr
The general business terms of Bass Instruments Co. ● All rights reserved

Bass Instruments
"the fluid control expert"