Thermal Mass Flow Meter

For clean and dry gases

Key Features

- Thermal Mass technology - not affected by temperature and pressure
- IP65 rating
- Flow range:
  - 0.1 to 250 Nm/s
  - 0.3 to 820 ft/sec
- Accuracy: ±1.5% reading, ±0.3% full scale
- Integrated touch screen display
- Power Supply: 18 to 30 vDC
- Two outputs as standard:
  - Digital - Modbus RTU
  - Analog – 4...20 mA + Pulse
- Measure: Flow, Mass flow, Consumption, Temperature
- Stable, accurate measurements

About

Insertion type, thermal mass flow sensors are perfectly suited for measuring clean, dry compressed air and inert gases, where shutting down the system is difficult or impossible.

The streamlined design ensures minimal impact on gas flow while maintaining accuracy over a wide flow range. This thermal mass flow meter has full digital signal processing instead of traditional analog bridge design, making the flow meter more accurate and allowing a wider measuring range.

Suitable for DN20 to DN600 and can be installed through 1/2” ball valve under pressure.

Applications

- Manufacturing and industrial use
- Temporary or permanent installation
- Clean, dry compressed air and inert gases
- Gas pressure up to 50 bar (725 psi)
- Pipe Sizes: DN20 to DN600

More Info

CAA SENSORS

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Specifications

Measurement Range	
Flow Velocity	0.1 to 250 Nm/s (0.3 to 820 ft/sec)
Gas Temperature	-40 to +150°C -40 to +302°F
Gas Pressure	0 to 16 bar (232 psi) Up to 50 bar (725 psi) if using a retention cage
Accuracy	
Flow Accuracy	±(1.5% RD + 0.3% FS)
Contact us for higher accuracy of ±1% RD	
Reference Conditions: 20 °C, 1 bar(a) -ISO 1217 (editable)	
The accuracy and response time of the sensor can be affected by the on-site conditions, contaminates in the gas and incorrect installation.	
Working Environment	
Ambient Temperature	-30 to +70°C -22 to +158°F
Gas types	Compressed air, nitrogen, oxygen, carbon dioxide and other non-condensable gases
Gas Quality	Clean and dry gas
Display & Data Logger	
Display	2.8" IPS ultra-wide viewing angle LCD touch screen
Data Logging	10,000,000 record points
Sampling Rate	> 20 samples per second

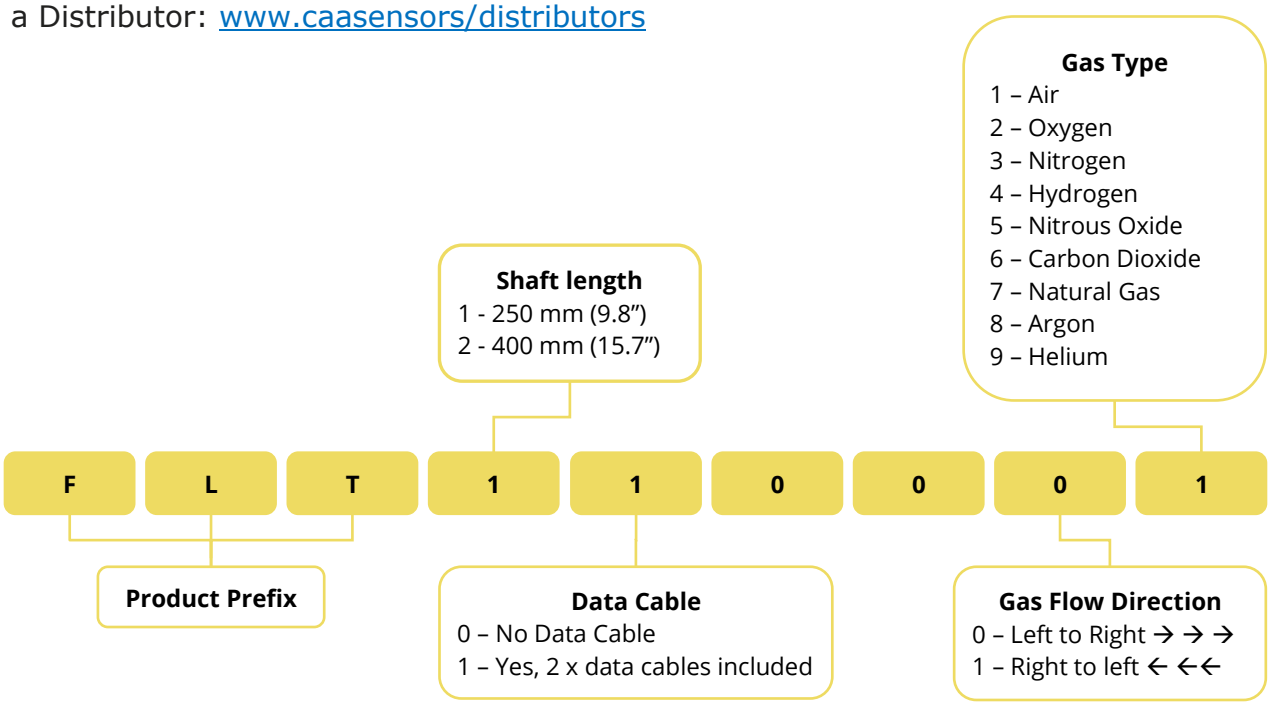
Output	
Analogue Output	4-20 mA (isolated) /Pulse output
Digital Output	Modbus RTU (RS485)
Output Signals	Flow, Mass flow, Consumption, Temperature
Full digital signal processing	
Power Supply	
Power Requirement	18 to 30V DC/ 5W @ 24V
Electrical Connection	2 × 5 pin M12, Female
Electromagnetic Compatibility	Meets IEC 61326-1
Other	
Process Connection	ISO G1/2" thread
Pipe Size	DN20 to DN600 0.75” to 12.0”
Shaft Lengths	250 mm or 400 mm 9.8" or 15.7”
IP Rating	IP65
Sensor Technology	Thermal Mass (not affected by temperature and pressure)
Turndown Ratio	Ultra-wide, 1:2500
Bi-directional	No
Installation	Permanent or Temporary
Calibration	Every 2 years
Annual calibration is required if the sensor is exposed to relative humidity above 85%.	
Warranty	12 months
HS Code	9026.80.80

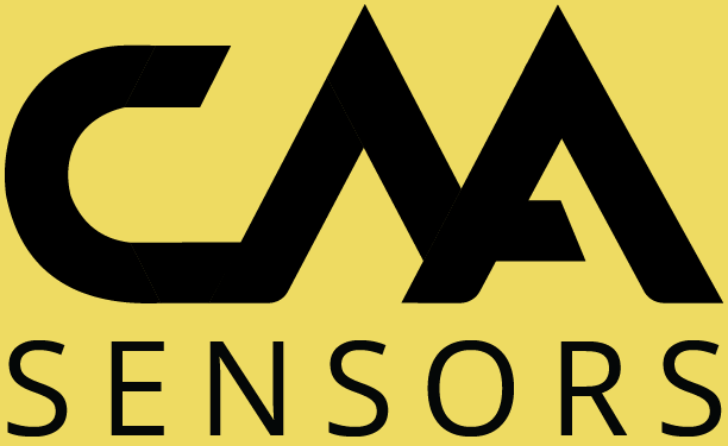
Flow Range

Pipe Size			Flow Range (Nm3/h)		Flow Range (cfm)	
DN	ID (mm)	Inches	Min Flow	Max Flow	Min Flow	Max Flow
20	20	3/4"	0.1	282	0.1	166
25	25	1"	0.2	441	0.1	259
32	32	1.25"	0.3	723	0.2	425
40	40	1.5"	0.5	1,131	0.3	665
50	50	2"	0.7	1,767	0.4	1,040
65	65	2.5"	1.2	2,986	0.7	1,757
80	80	3"	1.8	4,523	1.1	2,661
100	100	4"	2.8	7,068	1.6	4,158
125	125	5"	4.4	11,044	2.6	6,498
150	150	6"	6.4	15,904	3.8	9,357
200	200	8"	11.3	28,274	6.6	16,635
250	250	10"	17.7	44,178	10.4	25,991
300	300	12"	25.4	63,617	14.9	37,428

How to Order

Find a Distributor: www.caasensors/distributors





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