Thermal Mass Flow Meter - Outdoor

ATEX Rated, IP67 rating

FLE series

Key Features

- ATEX Rating
  - II 2G Ex db IIC T6 Gb
  - II 2D Ex tb IIIC T80°C Db
- Flange (DIN), PN16 and PN40
- DN15 (1/2”) to DN80 (3”)
- IP67 rating
- Flow range:
  - 0.1 to 250 Nm/s
  - 0.3 to 820 ft/sec
- Accuracy: ±1.5% reading, ±0.3% full scale
- Touch screen display
- Power Supply: 18 to 30 vDC
- Two outputs as standard:
  - Digital - Modbus RTU
  - Analog – 4...20 mA + Pulse
- Measure: standard flow, mass flow, consumption and

Flange with Integrated Display

About

Inline type, thermal mass flow sensors are perfectly suited for measuring clean, dry compressed air and inert gas systems, where accuracy on smaller pipe sizing is important

Thermal mass technology is independent of pressure and temperature change. With no moving parts, the flow meter has a stable signal, high reliability and long-term measurement accuracy. The flow meter has digital signal processing, replacing the traditional analog bridge design. This makes the flow meter more accurate and has a wider range (range ratio of 1:2500).

The highly durable IP67 rated, powder-coated Aluminium housing ensures the sensor can withstand the harshest environments.

Applications

- Manufacturing and industrial use
- Temporary or permanent installation
- Outdoor environments
- Clean, dry air and inert gases
- Gas pressure up to 40 bar (580 psi)
- Pipe Sizes: DN15 to DN80

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) 0 to 40 bar (580 psi)* *High pressure installer required
Accuracy	
Flow Accuracy	±(1.5% RD + 0.3% FS)
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
Minimum flow velocity	0.1 Nm/s (0.3 ft/sec)
Power Supply	
Power Requirement	18 to 30V DC⁄ 5W @ 24V
Electrical Connection	Terminal Strip
Electromagnetic Compatibility	Meets IEC 61326-1
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	

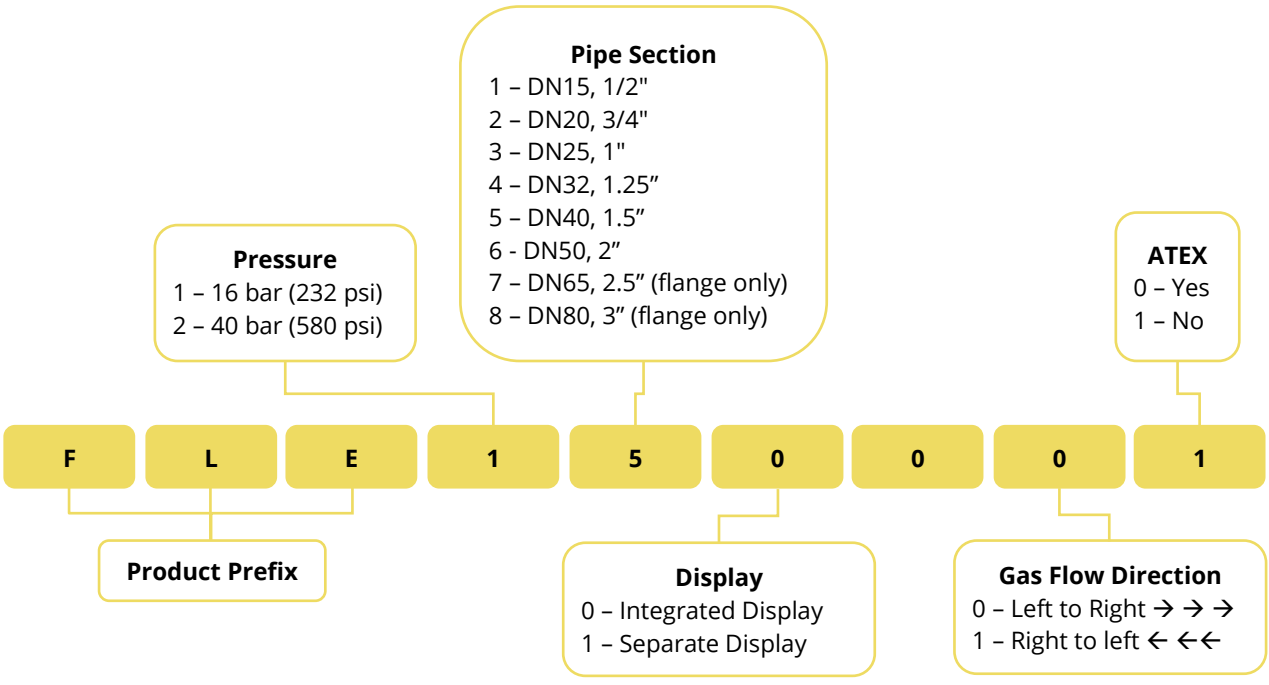
Display	
Display	2.0" IPS ultra-wide viewing angle LCD screen with capacitive touch
Display Options	Integrated Display or Split Display
Other	
Process Connection	ISO G1/2" thread
Pipe Size	Flange (EN 1092-1): DN15 (1/2”) to DN80 (3”)
Sampling Rate	> 20 samples per second
IP Rating	IP67
ATEX Rating	Ex II 2G Ex db IIC T6 Gb Ex II 2D Ex tb IIIC T80°C Db
Housing Material	Powder-coated Aluminium
Sensor Technology	Thermal Mass (not affected by temperature and pressure)
Turndown Ratio	Ultra-wide, 1:2500
Bi-directional	No
Data Logger	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

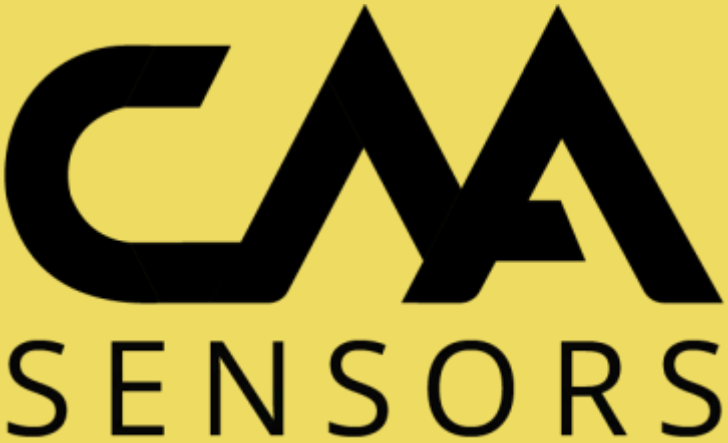
Flow Range

Pipe Size		Flow Range (Nm3/h)		Flow Range (cfm)	
DN	Inches	Min Flow	Max Flow	Min Flow	Max Flow
15	½”	0.06	158	0.04	93
20	3/4"	0.1	282	0.06	166
25	1”	0.2	441	0.1	259
32	1.25”	0.3	723	0.2	425
40	1.5”	0.5	1,131	0.3	665
50	2”	0.7	1,767	0.4	1,040
65	2.5”	1.2	2,986	0.7	1,757
80	3”	1.8	4,523	1.1	2,662

How to Order

Find a Distributor: www.caasensors/distributors





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