Vortex Flow Meter

For gas and steam, ATEX Rated
FLV series

Key Features

- ATEX Rating
  - II 2G Ex db IIC T6 Gb
  - II 2D Ex tb IIIC T80°C Db
- Vortex flow meter – suitable for gas and steam
- IP65 rating
- Flow range:
  - 1.5 to 300 Nm/s
  - 5 to 931 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: standard flow, consumption, pressure and temperature

About

Vortex flow meters are perfectly suited for measuring flow and consumption of inert gases and steam, no matter how heavily contaminated.

The turndown ratio of 1:53 for our Vortex flow meter goes well beyond traditional Vortex flow meters. With built-in pressure and temperature sensors, all parameters of your gas or steam system are monitored in one unit, saving you install and maintenance costs.

An all-welded construction means the flow meter is resistant to corrosion, high pressure and temperature. Full digital signal processing for higher precision and better stability

Applications

- Manufacturing and industrial use
- Temporary or permanent installation
- Outdoor environments
- Gas pressure up to 16 bar (232 psi)
- Steam pressure up to 63 bar (913 psi)
- Pipe Sizes: DN15 to DN300

More Info

CAA SENSORS

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www.caasensors.com

Specifications

Measurement Range		
Flow Velocity	1.5 to 300 Nm/s 5 to 984 ft/sec	
Gas Temperature	Gas -40°C to +150°C -40°F to +302°F	Steam -40°C to +280°C -40°F to +536°F
Gas Pressure	Gas 0 to 16 bar 0 to 232 psi	Steam 0 to 63 bar 0 to 913 psi
Accuracy		
Flow Accuracy	±(1.5% RD + 0.3% FS)	
Contact us for higher accuracy of ±1% RD		
Repeatability	±0.2% RD	
Reference Conditions: 20 °C, 1 bar(a), ISO 1217 (editable)		
Pressure Accuracy	±0.5% FS	
Temperature Accuracy	±0.5 °C (±1.0 FS @ > 100 °C)	
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	-40 to +85°C -40°F to +185°F	
Relative Humidity	0 to 95% RH	
Gas types	Dry /moist air and non-corrosive gases	
Gas Quality	Clean and dry gas Wet and dirty gas	
Display & Data Logger		
Display	2.8" IPS ultra-wide viewing angle LCD touch screen	
Data Logging	No	

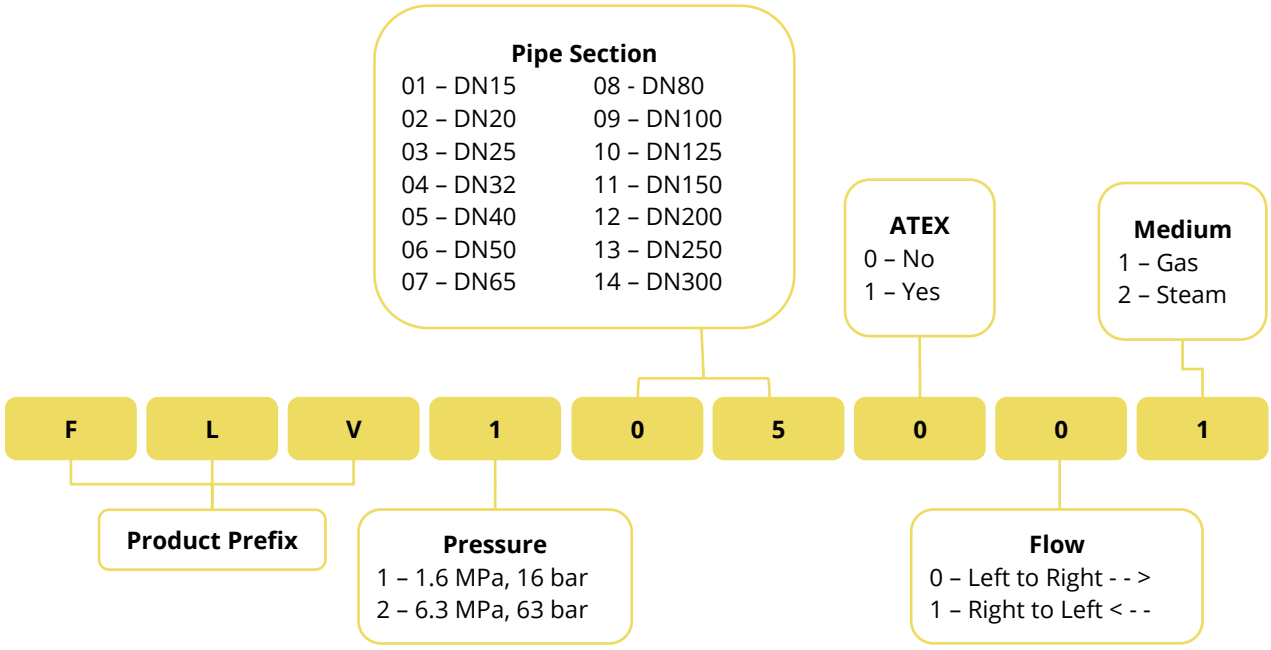
Output	
Analogue Output	4-20 mA (isolated) / Pulse output (cumulative)
Digital Output	Modbus RTU (RS485)
Output Signals	Flow, Consumption Pressure, Temperature
Full digital signal processing	
Power Supply	
Power Requirement - Measurements	18 to 30V DC/10W @ 24V
Electrical Connection	1 × 5 pin M12, Female
Electromagnetic Compatibility	Meets IEC 61326-1
Other	
Process Connection	Flange
Pipe Size	DN15 to DN300
IP Rating	IP65
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	Karman vortex principle
Turndown Ratio	1:53
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

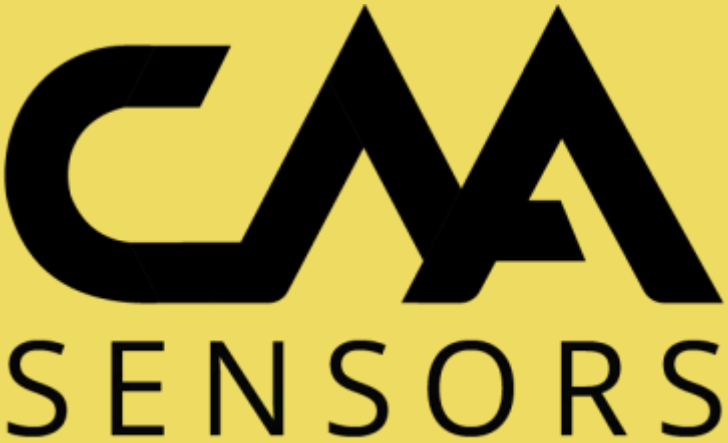
Flow Range

Vortex Flow Meter						
Pipe Size		Flow Rate	Flow Range (Nm3/h)		Flow Range (cfm)	
Inches	DN	m/s	Min Flow	Max Flow	Min Flow	Max Flow
1/2"	15	5.5 – 80	1.0	50.9	0.6	30.0
3/4"	20	5.0 – 80	3.1	90.4	1.0	53.2
1”	25	4.0 – 80	8.8	530	5	312
1.25”	32	3.0 – 80	14.5	868	9	511
1.5”	40	2.0 – 80	22.6	1,357	13	798
2”	50	1.5 - 80	35.3	2,120	21	1,247
2.5”	65	1.5 - 80	59.7	3,583	35	2,108
3”	80	1.5 - 80	90.5	5,428	53	3,193
4”	100	1.5 - 80	141.4	8,482	83	4,990
5”	125	1.5 - 80	220.9	13,253	130	7,797
6”	150	1.5 - 80	318.1	19,085	187	11,228
8”	200	1.5 - 80	565.5	33,929	333	19,962
10”	250	1.5 - 80	883.6	53,014	520	31,190
12”	300	1.5 - 80	1,272.3	76,340	749	44,913

How to Order

Find a Distributor: www.caasensors/distributors





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