



Flow Meter – Vortex

Insertion type sensor - ideal for wet and dirty gases

Features

Inline type sensor

Ideal for wet and dirty gases

Flow range of:

- 1.5 to 300 Nm/s
- 5 to 931 ft/sec

Accuracy: $\pm 1.5\%$ reading,
 $\pm 0.3\%$ full scale

Ultra high sensitivity vortex probe

Low pressure drop
minimises effects on gas
flow

Stable signals

Measure: standard flow,
consumption, pressure and
temperature

Integrated touch screen
display with data logging

Two outputs as standard
(i) Digital - Modbus RTU
(ii) Analog – 4...20 mA +
Pulse

Options:

- (i) gas or steam
- (ii) Multiple pipe sizes



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

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.

The turndown ratio of 1:53 goes well beyond traditional Vortex flowmeters.

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

Benefits of flow monitoring:

- Improve system efficiency
- Reduce system maintenance
- Reduce operating and energy costs
- Increase system understanding and operation
- Identify changes in system performance
- Identify non-productive air demand and leakage
- Identify peak and average demand

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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 (232 psi) Steam: 0 to 63 bar (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, contaminants 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
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

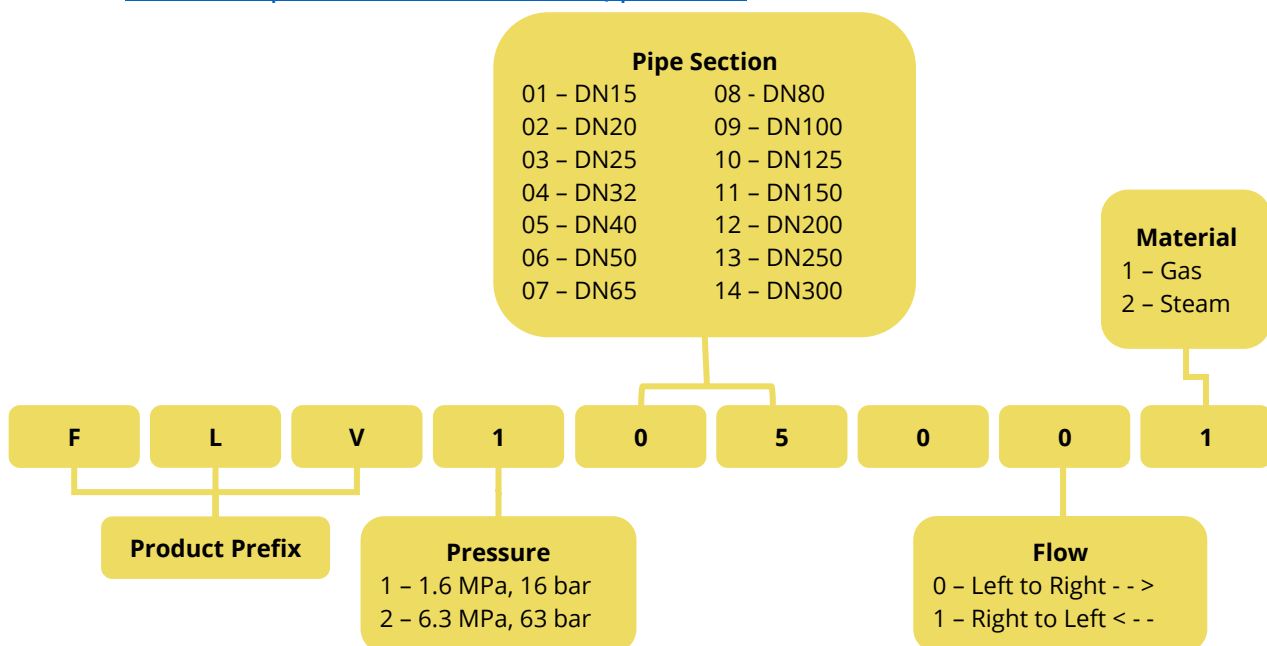


Flow Range

Pipe Size		Flow Rate m/s	Vortex Flow Meter Flow Range (Nm ³ /h)		Flow Range (cfm)	
Inches	DN		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

Buy online: www.compressedairalliance.com/products



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Flow Meter Product Range



Pitot Tube Flow Meter

Ideal for wet, dirty and high velocity gases.
Easy to install under pressure through a 1/2" ball valve

Flow Range

5 to 300 Nm/sec (17 to 984 ft/sec)
Min Flow Velocity: 5 Nm/s (17 ft/sec)

Pressure Range

0 to 16 bar (232psi)

Bi-directional

Optional

Gas Quality

Clean, dry, wet or dirty gas
Can be installed on the outlet of compressors.

Outputs

Modbus & 4-20mA

Pipe Size

DN25 to DN600



Thermal Mass - Insertion Style

Easy to install under pressure through a 1/2" ball valve

Flow Range

0.1 to 250 Nm/sec (0.3 to 820 ft/sec)

Pressure Range

0 to 50 bar (725psi)

Bi-directional

No

Gas Quality

Clean dry gas
Must be installed after a dryer

Outputs

Modbus & 4-20mA

Pipe Size

DN20 to DN600



Thermal Mass - Inline Style

Ideal for permanent installations or where shutting down the system to install the sensor is not an issue

Flow Range

0.1 to 250 Nm/sec (0.3 to 820 ft/sec)

Pressure Range

0 to 40 bar (580psi)

Bi-directional

No

Gas Quality

Clean dry gas
Must be installed after a dryer

Outputs

Modbus & 4-20mA

Pipe Size

DN15 to DN50



Vortex Flow Meter

For use in gas and steam systems

Flow Range

1.5 to 80 m/s (5 to 24 ft/sec)
Min Flow Velocity: 1.5 Nm/s (4.9 ft/sec)

Pressure Range

0 to 63 bar (913psi)

Bi-directional

No

Gas Quality

Clean, dry, wet or dirty gas / steam

Outputs

Modbus & 4-20mA

Pipe Size

DN15 to DN300