

Vortex Flow Meter

For gas and steam

Key Features

- Vortex flow meter – suitable for gas and steam
- IP65 rating
- Flow range:
 - 1.5 to 300 Nm/s
 - 5 to 931 ft/sec
- Accuracy: $\pm 1.5\%$ reading, $\pm 0.3\%$ 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.

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



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



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Specifications

| Measurement Range | | |
|---|--|-----------------|
| Flow Velocity | 1.5 to 300 Nm/s 5 to 984 ft/sec | |
| Gas Temperature | Gas | Steam |
| | -40°C to +150°C | -40°C to +280°C |
| | -40°F to +302°F | -40°F to +536°F |
| Gas Pressure | Gas | Steam |
| | 0 to 16 bar | 0 to 63 bar |
| | 0 to 232 psi | 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, 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 |
| HS Code | 9026.80.80 |

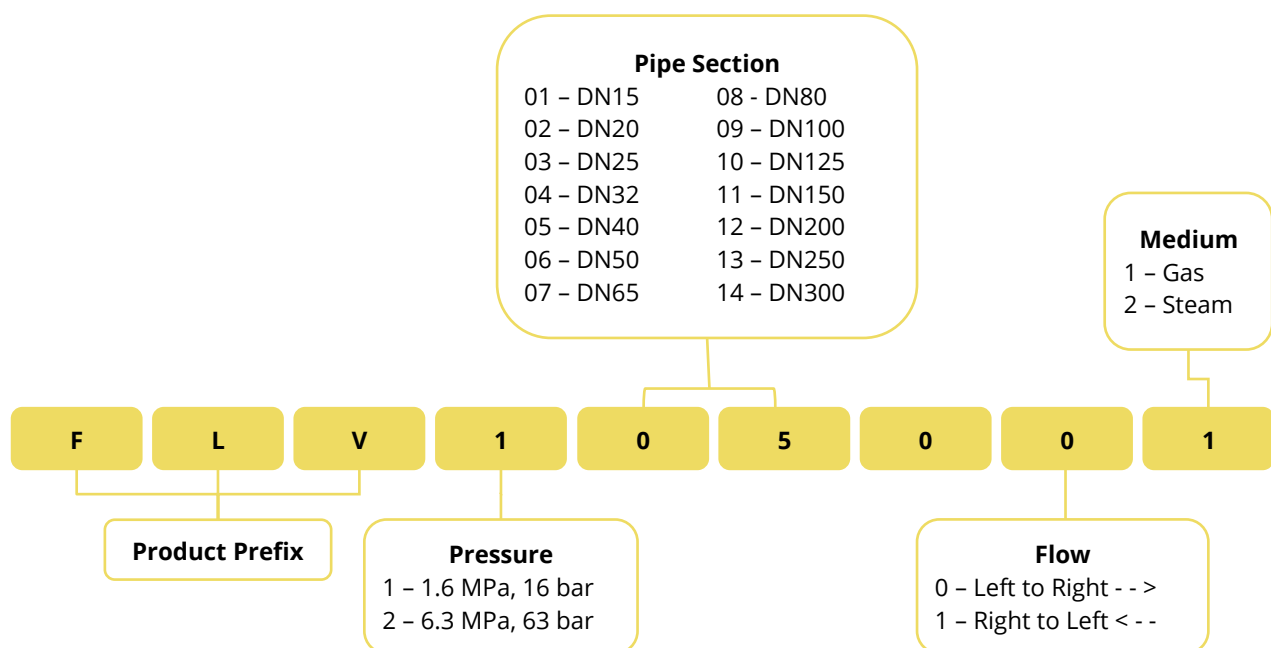


Flow Range

| Vortex Flow Meter | | | | | | |
|-------------------|-----|-----------|---------------------------------|----------|------------------|----------|
| Pipe Size | | Flow Rate | Flow Range (Nm ³ /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

Buy online: www.compressedairalliance.com/products



Flow Meter Range



Pitot Tube Flow Meter

Ideal for wet, dirty and high velocity gases.

Flow Range

5 to 300 Nm/sec (17 to 984 ft/sec)

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

Installation

Insertion

Pressure Range

0 to 16 bar (232psi)

Bi-directional

Optional

Gas Quality

Clean, dry, wet or dirty gas.

Outputs

Modbus & 4-20mA

Pipe Size

DN25 to DN600

IP Rating

IP65 (indoor use)



Thermal Mass

For clean, dry gas

Flow Range

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

Min Flow Velocity: 0.1 Nm/s (0.3 ft/sec)

Installation

Insertion

Inline – Flange or R-Thread connection

Pressure Range

Insertion: 0 to 50 bar (725psi)

Inline: 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

Insertion - DN20 to DN600

Inline – DN15 to DN80

IP Rating

IP65 (indoor use) or IP67 (outdoor use)



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)

Installation

Inline – Flange or R-Thread connection

Pressure Range

0 to 63 bar (913psi)

Bi-directional

No

Gas Quality

Clean, dry, wet or dirty gas / steam

Can be installed on the outlet of compressors

Outputs

Modbus & 4-20mA

Pipe Size

DN15 to DN300

IP Rating

IP67



Mini Flow Meter

For point of use applications

Installation

Inline

Pressure Range

0 to 16 bar (232psi)

Bi-directional

No

Gas Quality

Clean dry gas

Outputs

Modbus & 4-20mA

Pipe Size

DN3 to DN40

IP Rating

IP54