

Pitot Tube Flow Meter

For wet and dirty gases

FLP series

Key Features

- Option to measure bi-directional flow
- IP65 rating
- Flow range:
 - 5 to 300 Nm/sec
 - 17 to 984 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

Pitot tube flow meters are ideally suited to wet, dirty and high velocity compressed air and gas systems that contain some level of contamination. This makes pitot tube flow meters ideal for measuring flow, temperature and pressure near the outlet of compressors and other difficult environments.

The extremely sensitive differential pressure measurement allows this sensor to be used over a wide flow range. The patented anti - condensation technology ensures the sensor can be used under 100% saturated conditions.

Applications

- Manufacturing and industrial use
- Temporary or permanent installation
- Gas pressure up to 50 bar (232 psi)
- Pipe Sizes: DN25 to DN600



More Info

Specifications

Measurement Range	
Flow Velocity	5 to 300 Nm/sec 17 to 984 ft/sec
Gas Temperature	-40 to +150°C -40 to +302°F
Gas Pressure	0 to 17 bar (247 psi)
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)	
Pressure Accuracy	±0.5% FS
Temperature Accuracy	±0.5°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	-20 to +60°C -4 to +140°F
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	10,000,000 record points
Sampling Rate	> 20 samples per second

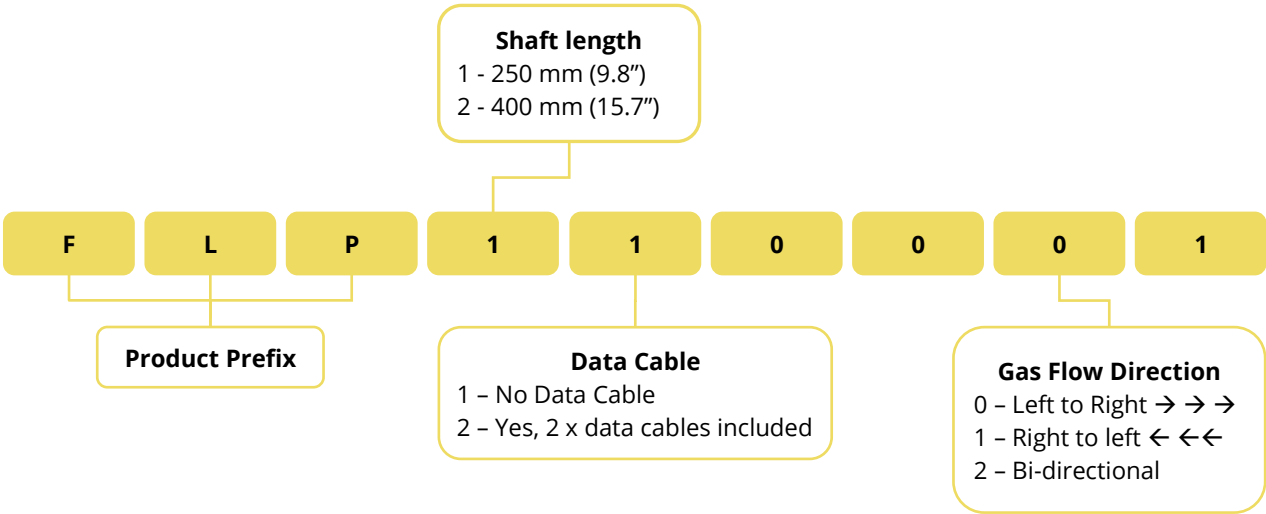
Output	
Analogue Output	4-20 mA (isolated) / Pulse output (cumulative)
Digital Output	Modbus RTU (RS485)
Output Signals	Flow, Consumption Pressure, Temperature
Full digital signal processing	
Power Supply	
Power Requirement - Measurements	18 to 30V DC/6.5W @ 24V
Power Requirement - Start-up phase	18 to 30V DC/24W @ 24V
Electrical Connection	2 × 5 pin M12, Female
Electromagnetic Compatibility	Meets IEC 61326-1
Other	
Process Connection	ISO G1/2" thread
Pipe Size	
• 250 mm shaft	DN25 to DN250
• 400 mm shaft	DN25 to DN600
Shaft Lengths	250 mm or 400 mm 9.8" or 15.7"
IP Rating	IP65
Sensor Technology	Pitot Tube
Turndown Ratio	1:60
Bi-directional	Optional
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

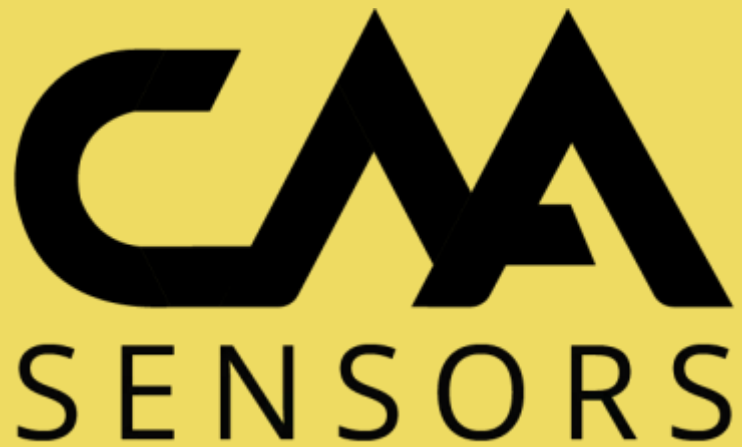
Flow Range

Pipe Size			Flow Range (Nm3/h)		Flow Range (cfm)	
Inches	DN	ID (mm)	Min Flow	Max Flow	Min Flow	Max Flow
1	25	25	8.8	530	5	312
1.25	32	32	14.5	868	9	511
1.5	40	40	22.6	1,357	13	798
2	50	50	35.3	2,120	21	1,247
2.25	65	65	59.7	3,583	35	2,108
3	80	80	90.5	5,428	53	3,193
4	100	100	141.4	8,482	83	4,990
5	125	125	220.9	13,253	130	7,797
6	150	150	318.1	19,085	187	11,228
8	200	200	565.5	33,929	333	19,962
10	250	250	883.6	53,014	520	31,190
12	300	300	1,272.3	76,340	749	44,913

How to Order

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