

F201x-W Series

Anti-Condensation Auto-Calibration

Pitot Tube Flow Meter



Product Overview

Performance:

Auto-drain: Pitot tube differential pressure measurement principle, which is usually limited by the influence of condensate, dirty air pollution and clogging, The F201x-W, as the new generation flow meter, has an Auto-Drain function; it can realize pollution resistance

Auto-heating: Accurate measurements in the moisture-saturated gas

Ultra-wide measurement range: The very low measuring limit which can reach 5 Nm/s, and turndown ratio 1:60

Online auto-calibration: Automatic compensates the impacts of temperature change, pressure change, and sensor pollution

Excellent vibration resistance: It is not affected by pipeline vibration

Installation:

Suitable for different pipe size: One flow meter can use in various diameter pipe

Install under pressure: Non-intrusive installation without downtime

Install at outlet of the compressor: Outstanding adaptability to working conditions

Powerful working condition adaptability: Applicable for most pipelines, avoiding pipe rework

Product Advantages



Anti-pollution

Auto-heating and auto-cleaning functions, applicable to various harsh pipeline working conditions



Online Auto-calibration

Online auto-calibration reduces measuring data drift from sensor aging



Smart Terminal

Optional Bluetooth, 4G or Wi-SUN wireless communication modules



Data Logging

Data recording and analysis via IoT or USB memory stick

- Applicable to the measurement of dirty and wet air, e.g. at the outlet of compressor
- Super high sensitivity, the lower limit is down to 5 Nm/s
- Bidirectional flow measurement
- Integrates pressure and temperature sensors to monitor online gas pressure and temperature
- The fully isolated electrical structure can completely filter out field disturbance
- The capacitive touch 2.8" IPS LCD with an ultra-wide viewing angle
- No moving parts, low pressure drop
- Data logging function with max. 10,000,000 values
- Optional Bluetooth, 4G, and Wi-SUN wireless communication modules enable wireless sensor configuration and data transmission
- Standard Modbus RTU (RS485) interface
- Optional FAD module for Gas-to-power ratio monitoring
- Insert type enables the flowmeter to be installed on different pipe diameters under pressure via 1/2" ball valve

Technical Data

Flow		Power	
Measuring Range	5 ... 300 Nm/s	Supply Voltage & Power	18 ... 30VDC 24W @ 24VDC
Accuracy	±(1.5% RD + 0.3% FS) [1% RD Option]		
Medium	Dry / wet air and non-corrosive gases		
Reference Conditions	20 °C, 1 bar(a) - ISO 1217 (Configurable)		
Gas-to-power Monitor	FAD Flow Real-time Conversion (Option)		
Pressure		Display & Data Log	
Measuring Range	0 ... 1.7 MPa(a)	Display	2.8" IPS LCD with capacitive touch
Accuracy	±0.5% FS	Data Log	max. 10,000,000 values
Temperature		Operating Environment	
Measuring Range	-40 ... +150 °C	Environment Temperature	-20 ... +60 °C
Accuracy	±0.5 °C	Medium Temperature	-40 ... +150 °C
		Operating Pressure	0 ... 1.7 MPa(a)
Output		Other	
4~20 mA Output (Standard)	Flow rate / Temperature / Pressure (Configurable)	Process Connection	G1/2" (ISO 228-1)
Pulse (Standard)	Consumption / Alarm	EMC	Compliant with IEC 61326-1
Digital Output	Modbus RTU (RS485)	Pole Section Material	SUS304 (Standard) SUS316 (Option)
Wireless Output (Choose one of three)	Bluetooth (Option) Wi-SUN (Option) IoT-4G (Option)	Housing Material	ABS+PC
Connector	2 × 5pin M12, Male		

* For operating conditions with severe pollution, please consult our sales staff

Measuring Range

Inch	DN	ID (mm)	Min Flow (Nm³/h)	Max Flow (Nm³/h)
1	25	25	8.8	530
1 ^{1/4}	32	32	14.5	868
1 ^{1/2}	40	40	22.6	1357
2	50	50	35.3	2120
2 ^{1/2}	65	65	59.7	3583
3	80	80	90.5	5428
4	100	100	141.4	8482
5	125	125	220.9	13253
6	150	150	318.1	19085
8	200	200	565.5	33929
10	250	250	883.6	53014
12	300	300	1272.3	76340

* For more pipe sizes and flow ranges, please consult sales

Order Information

Model	Process Connection	Digital Output	Flow Range	Analog Output	Wireless Comm.	Gas type	Accuracy	Monitor	Description
F201A-W									Pitot Tube Flow Meter, Insert type, 250 mm pole length (Suitable for pipe diameter up to DN250)
F201B-W									Pitot Tube Flow Meter, Insert type, 400 mm pole length (Suitable for pipe diameter up to DN600)
F201C-W									Pitot Tube Flow Meter, Insert type, 600 mm pole length (Suitable for pipe diameter up to DN1000)
F201A-W-B									Pitot Tube Flow Meter, Insert type, 250 mm pole length bi-directional flow measurement (Suitable for pipe diameter up to DN250)
F201B-W-B									Pitot Tube Flow Meter, Insert type, 400 mm pole length bi-directional flow measurement (Suitable for pipe diameter up to DN600)
F201C-W-B									Pitot Tube Flow Meter, Insert type, 600 mm pole length bi-directional flow measurement (Suitable for pipe diameter up to DN1000)
	1								ISO G1/2" Screw
		1							Modbus RTU (RS485)
			1						Flow range (5 ... 300 Nm/s)
				V0208 0007					4 ... 20 mA + Pulse Output
				S1701 0029					FAD Flow Real-time Conversion Module; Pipeline installation (temperature / pressure / humidity)
				S1701 0030					FAD Flow Real-time Conversion Module; Wall-mounted installation (temperature / pressure / humidity)
				S1701 0041					FAD Flow Real-time Conversion Module; DIN-Rail installation (temperature / pressure / humidity)
				V0013 0001					None (Default)
				S1701 0044					Bluetooth Module
				S1701 0010					FixInst IoT-4G Module
				S1701 0043					Third-party IoT-4G Module
				S1701 0024					Built-in Wi-SUN Sub-module, 915 frequency band, mainly suitable for Asia, America and Australia
				S1701 0025					Built- in Wi-SUN Sub-module, 868 frequency band, mainly suitable for Europe and the Middle East
				V0202 0001					Air
				V0202 0002					Oxygen (O ₂)
				V0202 0003					Nitrogen (N ₂)
				V0202 0004					Hydrogen (H ₂), Real Gas Calibration
				V0202 0005					Nitrous Oxide (N ₂ O)
				V0202 0006					Carbon Dioxide (CO ₂)
				V0202 0007					Natural Gas (NG)
				V0202 0008					Argon (Ar)
				V0202 0009					Helium (He), Real Gas Calibration
				V0202 0010					Other Specified Gases (Specify Gas or Gas Mix)
						V0204 0001			Standard accuracy calibration ±(1.5% RD + 0.3% FS)
						V0204 0002			High accuracy calibration ±(1% RD + 0.3% FS)
								S0105 0001	New-generation capacitive touch 2.8" IPS LCD with an ultra-wide viewing angle + Data logging function
								S0105 0001A	Without LCD version

*For more pole length, please consult sales

*Portable protective case is available as an option. Please refer to the accessories list (P126) for details

*There are difference in regulations and standards between countries and regions. Please select according to the local Wi-SUN frequency band