ACE

AFC/AFM series

Laminar Flow Differential Pressure Mass Flow Controller

(Industrial Use)

The AFC/AFM series measures the differential pressure of the gas generated which occurs when a small laminar flow element to measure the pressure deference, and the miniaturization was achieved by adopting the small laminar flow element.
By the appropriate selection of the flow rate, it is possible to correspond from minute flow to high flow rate.

Patent Pending

Feature

- It is possible to measure it from the amount of minute to high flow.
- It is possible to correspond from 10nccm to 50 NLM according to the selection of the element.
- It is a flow rate measurement and control unit covering variety type of flow rates. It is strong in a temporary influx of moisture into the gas and the condensation of the gas.

Specifications

Target gas	N2、Air、H2、CH4、Ar、CO2、CO、C3H8
Flow range	10NCCM～50NLM (℃ 0, rate 1 atm)
Control range	10～100 % FS
Accuracy	1 % FS 1% FS
Repeatability	±0.2 % FS ± 0.2% FS
Response speed	2 seconds (± 2% full scale setting of time to arrive)
Control range	2～100 % 2-100%
Operation temperature range	0 ~ ℃ 50 (10 ~ ℃ 40: Quality assurance), No-due condensation
Pressure	0.99MPaG
External seal	1x10 $^{-7}$ Pa · m ^{3} / sec (He) or less
Input signal	0-5VDC, RS485 (4-20mA factory option)
Output signal	0-5VDC, RS485 (4-20mA factory option)
Supply Voltage	DC24V ± 10% 200mA or less
Wetted Material	SUS316, Viton Other (SUS316L available support)
Power Connector	15 Pin D-Sub (Box only requires)
Dimension	Dimension 108mm Height 62mm (excluding connectors)
Fittings	1 / 4 equivalent to Swagelok fittings (VCR fittings available equivalent)

Note: 100～500NLM: Use DPFC-250 series, 1000 NLM or more: Use DFPC-500

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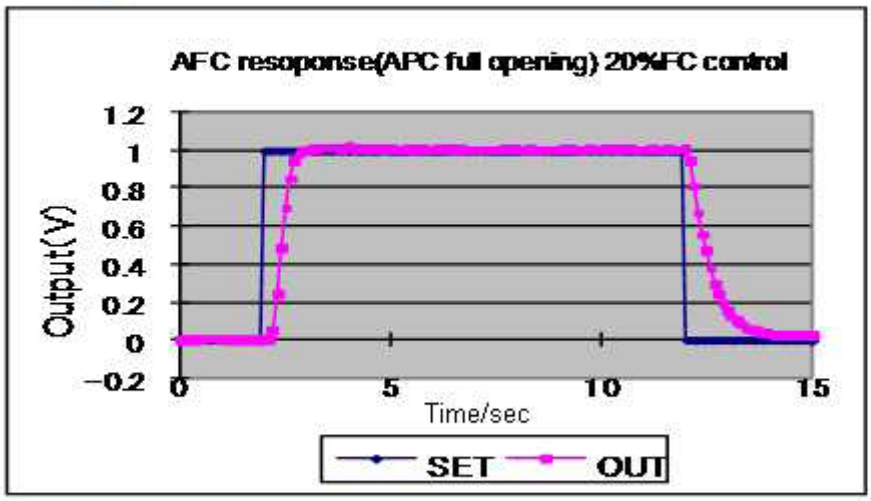
Response



Flow Control devise: Actual flow rate result: 1000 SCCM FS

Mesurement device: BIOS manufacture ML -500-24 22 5 deg. C, 757.3 mmHg

Flow setting	SET %	OUT %	Actual flow SCCM	Accuracy (FS%)
1000	100	100.0	100.1	0.1
800	80	80.0	79.9	-0.1
600	60	60.0	60.0	0.0
400	40	40.0	39.9	-0.1
200	20	20.0	19.8	0.2
100	10	9.9	9.8	-0.2
50	5	4.9	49.3	-0.1
20	2	2.1	21.8	0.2
10	1	1.1	12.0	0.2
0	0	0	0	

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