

F-201AB

Mass Flow Controller for Gases, Standard & Straightforward



Technical specifications

Measurement & control

Type of media	Gases
Flow range	min. 0.4...20 I _n /min max. 1.4...70 I _n /min
Accuracy	±1 % FS
Repeatability	<0.2 % RD
Turndown ratio	1:50 (2...100%)
Settling time (in control, typical)	approx. 1 sec.
Control stability	< ± 0.1 % FS (typical for 1 I _n /min N ₂)
Operating temperature	0...+50 °C
Temperature sensitivity	zero: < 0.1 % FS/°C; span: < 0.1 % Rd/°C
Leak integrity, outboard	tested < 2 x 10 ⁻⁹ mbar l/s He
Pressure sensitivity	<0.15 % Rd/bar at 4...10 bar(g); <0.25 % Rd/bar at 1...4 bar(g); <0.5 % Rd/bar at 0...1 bar(g)
Max. Kv-value	6.6 x 10 ⁻²
Mounting	max. error at 90° off horizontal 0.2 % FS at 1 bar, typical N ₂
Warm-up time	30 min
Storage/transport conditions	0...+50 °C, max. 95 % RH (non-condensing)

Approvals

Marking	CE, RoHS, WEEE, REACH
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Mechanical specs

Pressure rating (PN)	10
Ingress protection	IP40
Material wetted parts	Stainless Steel 316 or equivalent
Sealing material	standard: FKM/Viton®; option: FFKM/Kalrez®
Plunger material	FFKM with PI (polyimide) foil
Process connections	1/4" BSPP female thread (RS)
Weight	0.6 kg

Electrical properties

Power supply	+15...24 Vdc
Power consumption	3.5 W typical at 24 V
Analog output	0...5 (10) Vdc or 0 (4)...20 mA (sourcing)
Analog setpoint	0...5 (10) Vdc or 0 (4)...20 mA (sinking)
Digital communication	RS232 or Modbus-RTU or -ASCII (RS485)

Electrical interfaces

Power (main connector)	9-pin D-sub (male)
Function (instrument connector)	Analog, RS232, RS485
Modbus RTU/ASCII/FLOW-BUS	9-pin D-sub (male, main connection)