

# MV-402

Mass Flow Regulator for gases with pressure compensation and integrated display



## Technical specifications

### Measurement & control

Type of media	Any clean and dry gas, filter recommended
Flow range	min. 20...200 ml <sub>n</sub> /min max. 20...2000 ml <sub>n</sub> /min
Accuracy	±2% Rd for flow > 50% of max. capacity; ±(1% Rd + 0.5% FS) on lower flows
Repeatability	<0.2% FS typical
Turndown ratio	up to 1 : 100
Pre-installed gases	Air, Ar, N <sub>2</sub> , O <sub>2</sub> , CO <sub>2</sub> , CH <sub>4</sub> , C <sub>3</sub> H <sub>8</sub> , N <sub>2</sub> O, CO and C <sub>4</sub> H <sub>10</sub> (special models available for H <sub>2</sub> and Helium)
Response time (sensor)	2 sec
Operating temperature	0...50 °C (32...122 °F)
Temperature sensitivity	Zero: <0.1% FS/°C, Span: <0.2% Rd/°C
Leak integrity, outboard	tested < 2 x 10 <sup>-9</sup> mbar l/s He
Mounting	< 0.1% FS

### Approvals

Marking	CE, RoHS, WEEE, REACH
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### Mechanical specs

Pressure rating (PN)	10
Ingress protection	IP40
Material wetted parts	Meter: Aluminium; Needle valve: SS316, Brass
Sealing material	Viton®, PTFE, Fluorosint®, Buna N; Controller membrane: fiber-reinforced nitrile
Process connections	G 1/4" BSPP female thread
Min. ΔP	1 bar(d)
Max. ΔP	7 bar(d)
Weight	1.4 kg

### Electrical properties

Power supply	15...24 Vdc (+/-10%)
Power consumption	2 W (90 mA at 24 V)
Analog output	analog: 0...5 Vdc
Digital communication	digital: RS232 / RS485 (Modbus ASCII/RTU)

### Electrical interfaces