

DATASHEET MV-301

MASS-VIEW® MV-301

Mass Flow Regulator for gases with integrated display

MASSFLOW-ONLINE PRODUCT



Gas Mass Flow Regulators with integrated display

MASS-VIEW® model MV-301 Mass Flow Regulators (MFRs) are suited for precise measurement of flow ranges between 10...50 ml_n/min and 10...200 ml_n/min at operating pressures up to 10 bar(g). The MFR has an integrated graphical OLED display, clearly visible at wide angles, which allows reading of actual flow (value and a bar graph), total flow and type of gas. A high quality needle valve offers smooth and fine adjustment of the gas flow.

The display features easy set up via a user-friendly menu, using a 4-way navigation push button. The pre-installed gases eliminate the need to recalibrate for different gases and therefore reduce the cost of ownership. Additional features & functions include a variety of alarm and counter functions, an analog output signal, digital interfaces and two relay contacts.

The MASS-VIEW® series provides modern, novel and economical alternative to variable area meters (VA meters), also known as purge meters. Unlike conventional VA meters these new flow meters measure mass flow instead of volume flow.

Technische specificaties

Meet- / regelsysteem

Flowbereik (tussenliggende bereiken beschikbaar)	min. 10...50 ml _n /min max. 10...200 ml _n /min (based on N ₂)
Nauwkeurigheid (incl. lineariteit) (gebaseerd op actuele kalibratie)	± 2% Rd for flow > 50% of max. capacity; ± (1% Rd + 0,5% FS) on lower flows
Herhaalbaarheid	< 0,2 % FS typical
Turndown ratio	up to 1 : 20
Bedrijfsdruk	0 ... 10 bar(g) / 0 ... 150 psi(g)
Druk coëfficiënt	± 0,2% Rd/bar typical at Air
Vorgeïnstalleerde gassen	Air, N ₂ , O ₂ , CO
Standaard kalibratie gas	Air, other gases are converted using our Fluidat® conversion model which will introduce extra inaccuracy
Responstijd (sensor)	2 sec.
Bedrijfstemperatuur	0 ... 50 °C (32 ... 122°F)
Temperatuurcoëfficiënt	Zero: <0,1% FS/°C, Span: <0,2% Rd/°C
Lekdichtheid, naar buiten	getest < 2 x 10 ⁻⁹ mbar l/s He
Standgevoeligheid	< 0,1 % FS

Mechanische delen

Materiaal (onderdelen die in contact komen met het medium)	Meter: Aluminium; Needle valve: SS316
Testdruk	21 bar(a) / 300 psi(a)
Procesaansluitingen	G 1/4" BSPP female thread (compression fittings optional)
Afdichtingen	Viton®, PTFE
Gewicht	0,7 kg
Beschermingsgraad (behuizing)	IP40

Elektrische eigenschappen

Stroomvoorziening	+15 ... 24 Vdc (+/- 10%)
Max. stroomverbruik	approx. 135 mA
Analoog signaal	0 ... 5 Vdc
Digitale communicatie	RS232 / RS485 (Modbus RTU/ASCII)
Min. en max. relais contacten	switching current 0,5 A, 24 Vdc, one side grounded (0 Vdc power)
Elektrische aansluiting	8-pin RJ-45 modular jack

Elektrische aansluiting

Control valve options

Externe actuatoropties die op de controller moeten worden aangesloten

Ex-proof specificaties

Goedkeuringen / certificaten

Technische specificaties kunnen zonder kennisgeving worden gewijzigd.

Voor technische maattekeningen en aansluitschema's bezoekt u de [productpagina](#) op onze [website](#)

Related products



MASS-VIEW® MV-101

Min. flow 10...50
mln/min
Max. flow 10...200
mln/min
Drukklasse 10 bar
Helder, grafisch OLED
display
10 vooraf geïnstalleerde
gassen



MASS-VIEW® MV-391-H2

Min. flow 20...50
mln/min H2
Max. flow 20...200
mln/min H2
Bright, graphical OLED
display
High quality needle
valve



MASS-VIEW® MV-391-HE

Min. flow 20...50
mln/min He
Max. flow 20...200
mln/min He
Bright, graphical OLED
display
High quality needle
valve



MASS-VIEW® MV-401

Min. flow 20...50
mln/min
Max. flow 20...200
mln/min
Pressure rating 10 bar
Bright, graphical OLED
display
Pressure compensated
valve