

DATASHEET MV-405

MASS-VIEW® MV-405

Mass Flow Regulator for gases with pressure compensation and integrated display

MASSFLOW-ONLINE PRODUCT



Gas Mass Flow Regulators with pressure compensation and integrated display

MASS-VIEW® model MV-405 Mass Flow Regulators (MFRs) are suited for precise measurement and control of flow ranges between 0,05...50 l_n/min and 0,5...50 l_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 with integrated pressure compensation offers smooth and fine adjustment of the gas flow, even at varying upstream pressures.

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. 0,05...50 l _n /min max. 0,5...50 l _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 : 100
Bedrijfsdruk	0 ... 10 bar(g) / 0 ... 150 psi(g)
Druk coëfficiënt	± 0,2% Rd/bar typical at Air
Media	Non-hazardous gases; Helium excepted
Vorgeïnstalleerde gassen	Air, Ar, N ₂ , O ₂ , CO ₂ , CH ₄ , C ₃ H ₈ , N ₂ O, CO and C ₄ H ₁₀
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
Standgevoeligheid	< 0,1 % FS

Mechanische delen

Materiaal (onderdelen die in contact komen met het medium)	Meter: Aluminium; Needle valve: SS316, Brass
Testdruk	21 bar(a) / 300 psi(a)
Min. ΔP	2 bar(d)
Max. ΔP	7 bar (d)
Procesaansluitingen	G 1/4" BSPP female thread (compression fittings optional)
Afdichtingen	Viton®, PTFE, Fluorosint®, Buna N; Controller membrane: fiber-reinforced nitrile
Gewicht	1,4 kg
Beschermingsgraad (behuizing)	IP40
Regelnaauwkeurigheid	< 0,5-1% Rd/bar

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-106

Min. flow 0,4...20 l/min
Max. flow 2...200 l/min
Drukklasse 10 bar
Helder, grafisch OLED display
10 vooraf geïnstalleerde gassen



MASS-VIEW® MV-306

Min. flow 0,4...20 l/min
Max. flow 2...200 l/min
Pressure rating 10 bar
Bright, graphical OLED display
High quality needle valve



MASS-VIEW® MV-404

Min. flow 0,04...2 l/min
Max. flow 0,2...20 l/min
Pressure rating 10 bar
Bright, graphical OLED display
Pressure compensated valve