

DATASHEET MS-108

MASS-STREAM MS-108

Mass Flow Meter for 500 l/min - Mass Flow ONLINE

MASS FLOW ONLINE PRODUCT



MASS-STREAM THERMAL MASS FLOW METER FOR GASES

MASS-STREAM mass flow meters for gases are based on the thermal through-flow measurement principle.

Covering a wide measurement range, from 0.5...50 l/min up to 10...1000 l/min Air equivalent. Each Mass Flow Meter is equipped with exciting features, like our multi-functional on-board display for indicating actual flow, totalized flow, and alarms.

All **4 models**, shown in the table below, have 6 pre-installed gases: Air, N₂, O₂, Ar, CH₄, CO₂; analog 4-20mA output signals and Digital RS-232 communication. With Bronkhorst's FLUIDAT Onboard it is possible to select other gases or mixtures via our [free software Bronkhorst FlowSuite](#).

Technical specifications

Measurement / control system

Flow range (intermediate ranges available)	up to 500 l/min Air
Accuracy (incl. linearity) (based on actual calibration)	± 1,0 % RD plus ± 0.5% FS (at calibration conditions) (incl. factory calibration certificate on Air)
Repeatability	< 0,2 % FS
Turndown ratio	1:50
Operating pressure	up to 10 bar (g)
Pre-installed gases	Air, N ₂ , O ₂ , Ar, CH ₄ , CO ₂ + FLUIDAT Onboard
Standard calibration gas	Air, other gases are converted using our FLUIDAT Onboard model which will introduce small inaccuracy
Response time (sensor)	approx. 0,9 sec.
Operating temperature	0 ... 50 °C
Storage / Transport conditions	0 ... 50 °C, max. 95% RH (non condensant)
Temperature sensitivity	±0,1% Rd/°C (Air)
Pressure sensitivity	±0,3% Rd/bar typical (Air)
Leak integrity, outboard	tested < 2 x 10 ⁻⁸ mbar l/s He
Attitude sensitivity	at 90° deviation from horizontal max. error 0,2 % at 1 bar typical N ₂

Mechanical parts

Material (wetted parts)	Instrument body: Aluminium EN AW-6082-T6 Sieves, rings and sensor: Stainless steel SS 316
Process connections	BSPP female thread G1/4" (ISO1179-1)
Seals	FKM
Ingress protection	IP65

Electrical properties

Power supply	+15 ... 24 Vdc \pm 10%
Analog output	4...20 mA (sourcing output)
Digital communication	RS232
Electrical connection	8 DIN (male)

Electrical connection

Control valve options

External actuator options to be connected to the controller

Certification for hazardous areas

Approvals / certificates

Environmental / EMC	CE / RoHS
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Technical specifications subject to change without notice.

For dimensional drawings and hook-up diagrams please visit the [product page](#) on our [website](#)

Related products



MASS-STREAM MS-105

Shipped within 2 days

up to 50 l/min

6 pre-installed gases:

Air, N₂, O₂, Ar, CH₄, CO₂

Integrated TFT display



MASS-STREAM MS-106

Shipped within 2 days

up to 200 l/min

6 pre-installed gases:

Air, N₂, O₂, Ar, CH₄, CO₂

Integrated TFT display



MASS-STREAM MS-109

Shipped within 2 days

up to 1000 l/min

6 pre-installed gases:

Air, N₂, O₂, Ar, CH₄, CO₂

Integrated TFT display