



MASS-STREAM™ D-6300

Digital thermal Mass Flow Meters (MFM) and Mass Flow Controllers (MFC)

Technical Specifications



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Measurement System

- Accuracy (based on air calibration) $\pm 2\%$ FS including non-linearity
 $\pm 1.5\%$ FS on request
- Repeatability $< \pm 0.2\%$ FS
- Pressure sensitivity $\pm 0.3\%$ / bar typical (air)
- Temperature sensitivity $\pm 0.2\%$ RD / °C (air)
- Attitude sensitivity at 90° deviation from horizontal
max. error 0.2% at 1 bar typical N2
- Control stability $< 0.2\%$ FS typical
- Leak rate $< 2 \times 10^{-8}$ mbar l/s He
- Time constant sensor (98%) $\tau \leq 2$ sec
- Settling time (controller) plus approx. 2 sec
- RFI (Radio Frequency Interference) according to CE

Technical changes and alterations in construction are reserved.



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Operating Limits

- **Measuring range (turn-down-ratio)** up to 1 ... 100 % (1 : 100) for meters
up to 1 ... 50% (1 : 50) for controllers
- **Type of gases** almost all gases,
compatible with chosen materials
- **Temperature** 0 ... 50 °C
- **Pressure rating** Alu: 0 ... 10 bar (g); AISI 316L: 0 ... 20 bar (g)
D-6361: 0 ... 6 bar (g)
- **Warm up time** 30 min for optimum accuracy;
within 30 sec for accuracy \pm 4% FS

Mechanical Parts

- **Sensor** Stainless steel AISI 316L
- **Body** Stainless steel AISI 316L
or anodised Aluminium AL50ST/51ST
- **Sieves / Support rings** Stainless steel / teflon
- **Protection** IP65 (with and without display)

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Electrical Properties

- **Supply voltage** 15 ... 24 Vdc \pm 10%
- **Current peak values**
 - Meter** approx. 75 mA at 0 % flow
approx. 125 mA at 100 %flow
add 250 mA
 - Controller** add 30 mA, if applicable
 - Display** add 50 mA, if applicable
 - Fieldbus**
- **Output signal** 0 ... 10 Vdc / 0 ... 5 Vdc active
0 ... 20 mA / 4 ... 20 mA active
- **Connector** 8-pol round DIN (male)
for analogue and RS232
 - additional connectors for interfaces**
 - 5-pol M12 (male) for **Flow-Bus**
DeviceNet™
Modbus-RTU
 - 5-pol M12 (female) for **Profibus-DP®**

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