

Mini Cori-Flow

Coriolismassflödesmätare för vätskor och gaser från Bronkhorst High-Tech

Mäter och reglerar från 0,1 g/h till 30 kg/h

Enkel

- Mäter alltid rätt flöde oavsett tryck, temperatur och medium
- Snabb mätrespons: 50-200 ms som standard
- Snabb reglering: 0,5 sekund insvängning
- Okänslig för vibrationer
- Klarar temperaturer från 0 till +70°C
- Analogt bör- och ärvärde samt RS232-kommunikation
- Kapslingsklass IP65

Ekonomisk

- Enkelt montage med Swagelok-kopplingar, därmed låg installationskostnad
- Medieberörda delar i 316L
- Klarar tryck upp till 200 bar
- Profibus, DeviceNet, Modbus

Noggrann

- +/- 0,2 % av mätvärdet



Technical specifications

Flow ranges

	Unit	M12 *	M13	M14 *
Minimum full scale	[g/h]	5	50	1000
Nominal full scale	[g/h]	100	1000	10000
Maximum full scale	[g/h]	200	2000	30000
Minimum flow	[g/h]	0.1	1	30
Rangeability meter		1:100	1:100	1:100
Rangeability controller		≥ 1:50	≥ 1:50	≥ 1:50

* M12 will become available 3rd quarter 2008,

M14 will become available 2nd quarter 2008

Mechanical parts

Material (wetted parts)	Stainless steel AISI 316 or equivalent
Process connection	Compression type (welded) or face seal couplings
Outer seals	Metal
Valve seat (controllers)	Kalrez-6375, other on request
Weight	Meter: 1,2 kg; Controller: 1,7 kg
Ingress protection	IP65 (weatherproof)
Leak integrity	Outboard < 2 x 10 ⁻⁹ mbar l/s He
Pressure rating	Meter: 200 bar; Controller: 100 bar

Performance

Mass flow accuracy liquids	±0.2% of rate
Mass flow accuracy gases	±0.5% of rate
Repeatability (based on digital output)	±0.05% of rate ±1/2 [ZS x 100/flow]% (ZS = Zero Stability)

Note: optimal accuracy will be reached after approx. 30 minutes after instrument power-up.

	Unit	M12	M13	M14
Zero stability (ZS)*	[g/h]	< ±0.02	< ±0.2	< ±8
Density accuracy	[kg/m ³]	< ±20	< ±20	< ±3
Temperature accuracy	[°C]	±0.5	±0.5	±0.5
RMS** Noise	[g/h]	0.3	0.8	8
Temperature effects				
Zero drift	[g/h/°C]	±0.002	±0.02	±0.8
Span drift	[%Rd./°C]	±0.001	±0.001	±0.001
Initial heating at zero flow	[°C]	≤ 15 ***	≤ 15 ***	≤ 15 ***

* The zero stability is guaranteed at constant temperature and for unchanging process and environment conditions.

** Root mean square (standard deviation)

*** Total heating up of instrument depends on flow rate, heat capacity fluid, T amb., T fluid and cooling capacity.

Mounting	In any position (attitude sensitivity negligible)****
Device temperature	0 ...70°C; for ATEX Cat.3, Zone 2 max. 50°C
Typical meter response time (t98%)	0.2 s
Typical settling time controller (<2% of setpoint)	1 s

**** In order to guarantee the zero stability the instrument needs to be rigidly bolted to a stiff and heavy mass or construction. External shocks or vibrations should be avoided. Instruments mounted closely together need to be rigidly bolted to separate stiff and heavy masses or constructions to avoid interference (cross-talk).