

mini CORI-FLOW

M13V11I

Low Flow Coriolis Mass Flow Controller for Gases, 0...2 kg/h



Technical specifications

Measurement & control

Type of media	gases
Flow range	gas: 0...26.6 l _N /min (N ₂), 0...2000 g/h full scale (FS) value is user-configurable (50...2000 g/h)
Accuracy	±0.5% Rd ±5 kg/m ³ (density)
Repeatability	±0.05 % Rd ± ½ (ZS x 100/actual flow)%
Turndown ratio	up to 1:50
Settling time (in control, typical)	1 sec.
Zero point stability (ZS)	< ±0.2 g/h
Response time (sensor)	≤ 200 msec
Operating temperature	0...70 °C
Fluid temperature	0...70 °C; for ATEX Cat.3, Zone 2 max. 50 °C
Temperature sensitivity	on zero: < 0.02 g/h/°C; on span: < 0.001% Rd/°C; self heating (at zero flow): < 15 °C
Leak integrity, outboard	< 2 x 10 ⁻⁹ mbar l/s He
Max. Kv-value	2.4 x 10 ⁻³
Mounting	any position
Warm-up time	30 minutes
Storage/transport conditions	0...50 °C, max. 95 % RH (non-condensing)

Approvals

Marking	CE, UKCA, RoHS, WEEE, REACH
Ex-Protection	ATEX Zone 2, KCs

Mechanical specs

Pressure rating (PN) - in barg	100
Ingress protection	IP65
Material wetted parts	stainless steel 316L, Sandvik
Housing material	stainless steel 430F
Sealing material	FKM, FFKM or EPDM
Plunger material	FKM, FFKM or EPDM
Sensor inner diameter	single tube, DN 0.5
Process connections	compression type or face seal (VCR/VCO) fittings, or Tri-Clamp flanges (welded)
Weight	1.5 kg

Electrical properties

Power supply	15...24 Vdc ±10%
Power consumption	7 W typical at 24 V for fieldbus: add 0.9 W
Analog output	0...5 (10) Vdc or 0 (4)...20 mA (sourcing)
Analog setpoint	0...5 (10) Vdc or 0 (4)...20 mA (sinking)
Digital communication	standard: RS232; option: DeviceNet™, PROFIBUS DP, Modbus RTU, FLOW-BUS

Electrical interfaces

Actuator output	4-pin M8 (female)
Power (main connector)	8-pin DIN (male)
Function (instrument connector)	Analog, RS232
PROFIBUS DP	5-pin M12 B (female)
CANopen / DeviceNet	5-pin M12A (male)
Modbus RTU/ASCII/FLOW-BUS	5-pin M12A (male)