EN

mini CORI-FLOW

ML120V21

(Ultra) Low Flow Coriolis Mass Flow Controller

Bronkhorst®

Technical specifications

Measurement & control

Type of media	liquids and gases
Flow range	liquid: 0…200 g/h (nominal flow rate: 100 g/h) gas: 0…2.66 ln/min (N2) full scale (FS) value is user-configurable (5...200 g/h)
Accuracy	±0.2 % Rd (liquids) ±0.5 % Rd (gases) ±5 kg/m3 (density)
Repeatability	±0.05 % Rd ± ½ (ZS x 100/actual flow)%
Turndown ratio	up to 1:100
Settling time (in control, typical)	80 ms
Zero point stability (ZS)	< ±10 mg/h
Response time (sensor)	≤ 200 msec
Operating temperature	0…70 °C
Fluid temperature	0…70 °C
Temperature sensitivity	on zero: < 3 mg/h/°C; on span: < 0.005% Rd/°C; self heating (at zero flow): < 10 °C
Leak integrity, outboard	< 2 x 10^{-9} mbar l/s He
Mounting	any position
Warm-up time	30 minutes
Storage/transport conditions	0...50 °C, max. 95 % RH (non-condensing)

Approvals

Marking	CE, UKCA
Ex-Protection	ATEX Zone 2

Mechanical specs

Pressure rating (PN)	5
Ingress protection	IP40
Material wetted parts	stainless steel 316L
Housing material	galvanized and powder coated steel (1.0330)
Sealing material	FFKM/Kalrez®
Sensor inner diameter	single tube, DN 0.25
Process connections	compression type or face seal (VCR/VCO) couplings
Weight	0.9 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)
Frequency/Pulse output	max 50 kHz

Electrical interfaces

Actuator output	4-pin M8 (female)
Power (main connector)	9-pin D-sub (male)
Function (main connector)	Analog, RS232, RS485
PROFIBUS DP	9-pin D-sub (female)
CANopen / DeviceNet	5-pin M12A (male)
Modbus RTU/ASCII/FLOW-BUS	RJ45
Modbus TCP / EtherNet/IP / EtherCAT®/ PROFINET / POWERLINK	2x RJ45

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