mini CORI-FLOW
MI140
Low Flow Coriolis Mass Flow Meter / Controller, 0...30 kg/h

Bronkhorst®

Technical specifications

Measurement & control

Type of media	liquids and gases
Flow range	liquid: 0…30 kg/h (nominal flow rate: 10 kg/h) gas: 0…400 l_n/min (N_2) full scale (FS) value user-configurable (1…30 kg/h)
Accuracy	±0.2 % Rd (liquids) ±0.5 % Rd (gases) ±5 kg/m3 (density)
Repeatability	±0.05% Rd ±ZS
Turndown ratio	up to 1:1000
Zero point stability (ZS)	< ±6.0 g/h
Response time (sensor)	≤ 200 msec
Operating temperature	-20…70 °C
Fluid temperature	-20…70 °C
Temperature sensitivity	≤ 0.5 g/h/°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, RoHS, WEEE, REACH
Ex-Protection	ATEX Zone 22, IECEx Zone 2

Mechanical specs

Pressure rating (PN) - in barg	200
Ingress protection	IP66/67
Surface roughness wetted parts	<0.8 µm (Ra max)
Material wetted parts	stainless steel 316L / 1.4404
Housing material	stainless steel 316L / 1.4404 (body); high-grade anodised aluminium alloy 3.2515 (housing and cover); FKM (sealings)
Sealing material	none (in fluid path)
Sensor inner diameter	single tube, DN 1.1, Ra ≤ 0.8 µm
Process connections	compression type or face seal (VCR/VCO) fittings, or Tri-Clamp flanges (welded)
Weight	5 kg

Electrical properties

Power supply	15…24 Vdc ±10%
Power consumption	meter: 2.5 W typical at 24 V controller: 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; options: DeviceNet™, CANopen®, PROFIBUS DP, Modbus RTU/ASCII, FLOW-BUS, EtherCAT®, PROFINET, Modbus/TCP, EtherNet/IP, POWERLINK

Electrical interfaces

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