

LIQUI-FLOW

L23V12

Digital Thermal Liquid Mass Flow Controller, 1000 g/h



Technical specifications

Measurement & control

Type of media	liquids water-like
Flow range	min. 2...100 g/h max. 20...1000 g/h (liquid, flow based on H ₂ O)
Accuracy	±1% FS (based on sensor max)
Repeatability	< 0.2% FS (typical H ₂ O)
Turndown ratio	up to 1:50
Settling time (in control, typical)	< 2 sec.
Control stability	±0.1% FS/°C
Response time (sensor)	≤ 2 sec.
Operating temperature	5...50 °C
Fluid temperature	5...50 °C
Temperature sensitivity	±0.1% FS/°C
Leak integrity, outboard	< 2 × 10 ⁻⁹ mbar l/s He
Max. Kv-value	2,37x10 ⁻³
Mounting	in any position
Warm-up time	30 minutes
Storage/transport conditions	0...50 °C, max. 95% RH (non-condensing)

Approvals

Marking	CE, RoHS, WEEE, REACH
---------	-----------------------

Mechanical specs

Pressure rating (PN)	100
Ingress protection	IP40
Material wetted parts	stainless steel 316L, Sandvik
Housing material	stainless steel 1.4404 or comparable (body), ABS/stainless steel 1.4404 or comparable (cover)
Sealing material	FFKM/Kalrez®-6375
Sensor inner diameter	0.8 mm (30S); 1.2 mm (70S)
Process connections	compression type or face seal male fittings
Purge connection	1/16" OD compression type
Max. ΔP	10 bar(d)
Weight	0.6 kg

Electrical properties

Power supply	15...24 Vdc ±10%
Power consumption	3.5 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

Power (main connector)	9-pin D-sub (male)
Function (instrument 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