

P-602CM

Metal-Sealed Forward Pressure Controller for high purity gases



Technical specifications

Measurement & control

Accuracy	±0.5% FS
Repeatability	≤ 0.1% Rd
Control stability	≤ ± 0.05 % FS (typical for 1 slm N2 at specified process volume)
Response time (sensor)	2 msec
Operating temperature	-10...+70°C
Temperature sensitivity	0.1% FS/°C
Leak integrity, outboard	Elastomer sealed: < 2 x 10 ⁻⁹ mbar l/s He Metal sealed: < 2 x 10 ⁻¹¹ Pa.m ³ /s He
Pressure range sensor	min. pressure 2... 100 mbar, max. pressure 1.28... 64 bar
Max. Kv-value	6.6 x 10 ⁻²
Leak-by through closed valve	< 10 ⁻⁵ Pa.m ³ /s He
Mounting	Attitude sensitivity (at 90° change) < 0.3 mbar (abs./rel. sensors), < 6 mbar (dif. sensors)
Warm-up time	negligible
Storage/transport conditions	0...+50°C, max. 95% RH (non-condensing)

Approvals

Marking	CE, RoHS, WEEE, REACH
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Mechanical specs

Pressure rating (PN)	64
Ingress protection	IP40
Material wetted parts	stainless steel 316L or comparable
Sealing material	outer seals: metal-to-metal (no O-rings); valve seat: Kalrez® (FFKM)
Process connections	1/4" face seal couplings
Weight	0.7 kg

Electrical properties

Power supply	+15...24 Vdc
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: PROFIBUS DP, CANopen®, DeviceNet™, PROFINET, EtherCAT®, Modbus RTU, ASCII or TCP/IP, EtherNet/IP, POWERLINK, FLOW-BUS

Electrical interfaces

Power (main connector)	9-pin D-sub (male)
Function (instrument connector)	RS232, Analog, 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