



P-OEM Specifications

P/N: XXX-POEM

Version : 1.1

Performance

Pressure ranges up to 8 on one P-OEM module :
The proportional valve assembly can be configured to be on or off the circuit board

0 to 25 mbar (0.4 psi) Required pressure supply : 500 mbar (7,25 psi) Maximum pressure supply : 600 mbar (8,7 psi)
0 to 69 mbar (1 psi) Required pressure supply : 500 mbar (7,25 psi) Maximum pressure supply : 600 mbar (8,7 psi)
0 to 345 mbar (5 psi) Required pressure supply : 800 mbar (11,6 psi) Maximum pressure supply : 900 mbar (13,05 psi)
0 to 1000 mbar (15 psi) Required pressure supply : 1300 mbar (18,85 psi) Maximum pressure supply : 1400 mbar (20,3 psi)
0 to 2000 mbar (30 psi) Required pressure supply : 2400 mbar (34,8 psi) Maximum pressure supply : 2600 mbar (37,7 psi)
0 to 7000 mbar (100 psi) Required pressure supply : 7400 mbar (107,32 psi) Maximum pressure supply : 7600 mbar (110,22 psi)
0 to -25 mbar (-0.4 psi) Required vacuum supply : -800 mbar (-12 psi)
0 to -69 mbar (-1 psi) Required vacuum supply : -800 mbar (-12 psi)
0 to -345 mbar (-5 psi) Required vacuum supply : -800 mbar (-12 psi)
0 to -800 mbar (-12 psi) Required vacuum supply : -800 mbar (-12 psi)

Pressure stability	<0.1% full scale – CV (on measured values)
Accuracy	0.25% full scale
Repeatability (10)	<0.001% full scale Standard deviation of mean values for same pressure order
Sensor resolution	0.03% full scale
Mechanical response time	<10 ms
Settling time	40 ms minimum 6 seconds (Typical response time for 15 mL to 2 bar)
Depressurization time	12 seconds (Typical response time for 15 mL to 2 bar)

Mechanical

Weight	from 300 to 450 g
Dimensions	Slim board 19 x 9.5 x 6.5 cm (up to 3 channels)
	Standard board 19 x 14 x 6.5 cm (up to 4 channels)
	Large board 19 x 24 x 6.5 cm (up to 8 channels)
	Additional options such as air pump reduce the capacity for pressure channels / board
Manifold	Aluminum
Valve	FKM/FKM, Stainless Steel
Interior Tubing	Silicon platinum

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Pressure sensor	High temperature polyamide, Epoxy, Silicon gel
Operating temperature range	-10°C to 80°C
Storage temperature	-40°C to 85°C
Operating humidity	0-100% HR
Storage humidity	0-100% HR
Optional on board pump	The module can be configured to have an on-board or off-board pressure and or vacuum pump depending on needs
Internal leakage	0.35 l/min
Air consumption	The system can be configured to minimize air consumption
Sensor type	Piezzo resistive silicon pressure sensor
Pressurized media	Non corrosive or explosive gas (Ambien air, N2, Ar, CO2), oil free and dry
Pneumatic connections	Speedfit
Mounting type	4x M3 screws
Gas compatibility	Non corrosive or explosive gas (Ambient air, N2, Ar, CO2), oil free and dry
Gas temperature	4°C to 37°C
Drying	Moisture control tube - WARNING, make sure the moisture control tube is well ventilated
	Inline air dryer
Electrical	
Digital communication interface	RS232, USB
Readout sample time	5 ms
RS232 connection	Sub DB9
Power supply connector type	Screw terminals Mascot connection available on demand
Power supply	24 VDC
Current supply	1.5 A
Maximum power consumption	10W for 4 channels (7 bar) 20W for 8 channels (7 bar) 6W for 4 channels (0-2 bar) 10W for 8 channels (0-2 bar)
Data Update Rate - data refresh rate	10 Hz
Digital Data Update Rate - internal refresh rate	10 Hz
Digital communication protocol	USB or RS232
Compatible operated system (OS)	Windows, Linux, MacOS
Software control	OxyGen or SDK
Other configuration options	
Pressure relief valve	Valve which will open at desired pressure min max levels includes a pressure inlet value display with flat ribbon cable attached to the P-OEM. User to integrate this signal/functionality into the system
Purge valve	Valve channels for which you require a purge, see standard configuration in on page (11), other configurations can also be realized
Coating	Epoxy coating
Fluigent's product combination	

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Flowboard	A flowboard circuit can be integrated on the module to make use of flowrate sensor input, the board can be on or off the P-OEM module
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