

## Submittal Data Sheet

### Features

- Line pressure sensor may be mounted inside the cabinet or remotely located “by purchasing an optional PX-PSM-XX assembly” to eliminate the need for a high/low pressure switch for master alarm operation.
- Electronic monitoring of circuits with up to 20 error, alarm or information messages.
- May be converted from high pressure cylinder use to use with low or medium pressure liquid portable bulk vessels.
- Includes 3/4” source or main line ball valve with copper tube extension, part number PX-48-0023.
- Optional single point relief valve vertical kit, part number PX-88-1075.
- Unit of measure switching (psi, kPa, BAR).
- Dual line pressure regulators.
- Double “Z” brackets for one man installation.
- Cabinet weight 70 lbs.
- Input power 120 to 240 VAC, 50 to 60 Hz – single point connection.
- OSHPD Seismic Certified, OSP-0380-10.

### Specification

The NFPA 99 compliant digital, fully automatic manifold shall be a Powerex Genesys™ series. No manual resetting of valves or levers shall be required. The unit shall switch from “Bank in Use” to “Reserve” bank without fluctuation in line delivery pressure. Simultaneously, the “Reserve in Use” alarm shall be triggered by the manifold’s microprocessor. The manifold shall continue to provide gas, in the event of a power failure, until both banks are depleted. After the switchover, the “Reserve” bank shall then become the “Bank in Use”. The manifold microprocessor shall also trigger the “High Line Pressure” and “Low Line Pressure”

### Line Regulators Flow Capacity

Maximum rated flow capacity of line regulators only, not the manifold cabinet, flowing to atmosphere. (Without restricting line pressure drop).

Gas Service	Delivery Pressure
Oxygen or Medical Air	1H, 2H, 3H
	4,500 SCFH (2,120 l/min)
Nitrogen	3H
	6,000 SCFH (2,830 l/min)

Maximum recommended flow due to the chill down nature of the gas.

Gas Service	Delivery Pressure with Heaters
Nitrous Oxide or Carbon Dioxide	1X
	500 SCFH (236 l/min)



Model PX-CCU12N01X shown above

alarms without the need for additional pressure switches or transducers. The manifold shall be capable of being upgraded after installation, to be used with low or medium pressure portable bulk vessels or for use at higher or lower delivery pressures.

The microprocessor based control panel shall incorporate LED’s and an illuminated text display and shall provide electronic monitoring of circuits with up to 20 error, alarm or information messages displayed for ease of maintenance. The illuminated text display shall be readable even in poor lighting conditions. Analog gauges are also provided so that line and both bank pressures may be observed in the event of a power failure. The control panel shall also incorporate a set of LED’s for each bank, green for “Bank in Use”, amber for “Ready” and red for “Empty”.

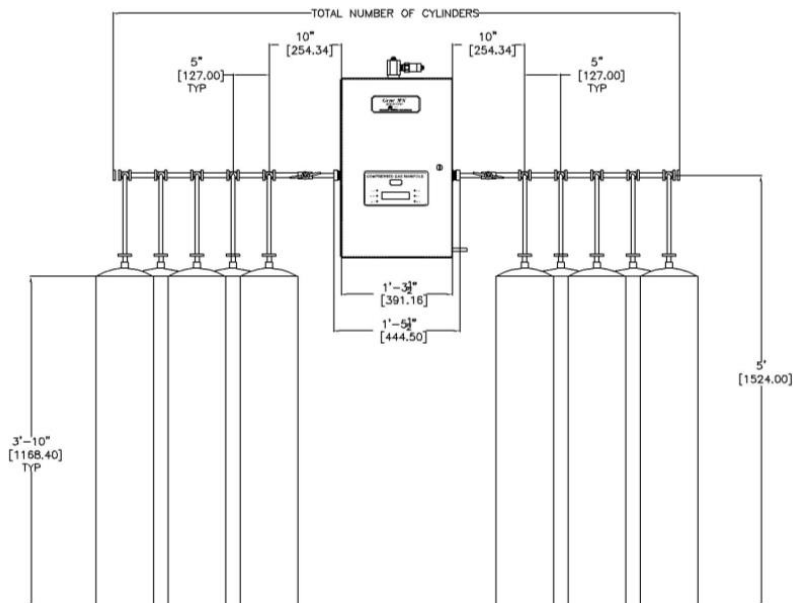
All manifold regulators, piping and control switching equipment shall be cleaned for use with oxygen service and installed in a steel powder coated cabinet (weatherproof version available) to

**Manifold Cabinet Flow Capacity**

Static Delivery Pressure Setting PSI	Pressure Drop	Pressure Flowing PSI	Manifold Line Regulator Delivery Pressure and Flow Option		
			Average Flow Rate in SCFH (l/min)		
			1H	2H	3H
53	3	50	640 (302 l/min)		
	5	48	1,260 (595 l/min)		
	7	46	1,650 (779 l/min)		
	10	43	2,430 (1,147 l/min)		
85	3	82		1,010 (477 l/min)	
	5	80		1,610 (760 l/min)	
	7	78		2,670 (1,261 l/min)	
	10	75		3,120 (1,473 l/min)	
175	10	165			1,230 (581 l/min)
	20	155			2,535 (1,197 l/min)
	30	145			4,140 (1,955 l/min)
	35	140			4,500 (2,125 l/min)

Flow rates shown were obtained using Nitrogen, flowing through the right primary regulator, which is considered the most restrictive flow path (worst case condition). Testing was performed with an average inlet pressure to the manifold cabinet at 1,425 PSI.

**Dimensional Drawing**



## Design Lengths

Design Lengths	4	6	8	10	12	16	20
<b>STAGGERED DESIGN (5" CENTERS)</b> <b>OVERALL MANIFOLD LENGTH</b>	4' - 6" (1.32m)	5' - 4" (1.57m)	6' - 2" (1.83m)	7' - 0" (2.08m)	7' - 10" (2.34m)	9' - 6" (2.85m)	11' - 2" (3.35m)
<b>VERTICAL CROSSOVER (5" CENTERS)</b> <b>OVERALL MANIFOLD LENGTH</b>	3'-7" (1.10m)	N/A	4'-6" (1.32m)	N/A	5'-4" (1.63m)	Contact Powerex	Contact Powerex

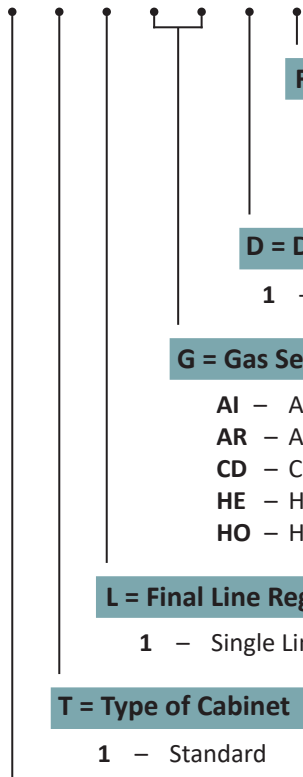
See Separate Manifold Header Literature for Header Part Numbers

## Ordering Information

Easy to use modular ordering system. Fill in the 7 blanks to specify the manifold that meets your needs.

PX- 

C	C	U	T	L	G	G	D	F
---	---	---	---	---	---	---	---	---



### F = Flow & Heater Options

**H** – High Flow without Heaters      **X** – High Flow with Heaters\*

*\*Input voltage limited to 120 VAC for these Models*

*(Transformer kit part # PX-35-3004 reduces 240 VAC single phase to 120 VAC.)*

### D = Delivery Pressure

**1** – 50 psi      **2** – 80 psi      **3** – 170 psi

### G = Gas Set

**AI** – Air/Medical Air

**AR** – Argon

**CD** – Carbon Dioxide

**HE** – Helium

**HO** – Hyperbaric Oxygen

**IA** – Instrument Air

**NT** – Nitrogen

**NO** – Nitrous Oxide

**NX** – N<sub>2</sub>O-Oxygen Mix

**OC** – Carbogen

(CO<sub>2</sub> 7% max)

**OX** – Oxygen

**TG** – Tri-Gas

### L = Final Line Regulation

**1** – Single Line Regulator      **2** – Dual Line Regulator *(required for NFPA 99 compliant manifolds)*

### T = Type of Cabinet

**1** – Standard      **2** – Weatherproof

### U = Country

**U** – U.S.A.      **C** – Canada

### Examples:

PX-CCU12OX1H = Cylinder x Cylinder Genesys™ Manifold, Standard Cabinet, Dual Line Regulators, CGA 540 Oxygen service, 50 psi delivery, High flow. High/Low line pressure sensor with DISS union demand check is included with all units.