

# GM2-D SERIES

Digital Automatic Manifold Systems

Manifold Systems

GM2-D series digital automatic manifold system is designed to provide an uninterrupted gas supply. The fully automatic digital manifold system monitors cylinder bank pressure electronically, automatically changes over to secondary bank when the primary cylinder bank is depleted, and eliminates the need to manually set a priority side. In case of power failure, the system continues to supply gas without interruption. Using our second generation pressure differential switchover valve and newly designed manifold regulators boosts the flowrate and reliability of the system.



## Features

### Automatic Changeover Cabinet

- Fully enclosed, tamper-resistant metal cabinet
- On-site Display: Indicator lights of system status, Gauge Pressures, visual Remote alarm box provide system status; Digital display of pressure; with changeover alarm function
- Pressure switch control
- External filter facilitates replacement of filtration elements
- Patent pending changeover technology

### Header

- Silver brazing on piping joints for maximum leak prevention
- System is designed to accommodate future expansion needs
- System is mounted with gas filters
- Pressure switch port available
- Headers have been tested to withstand high cylinder pressure
- Wall or floor mount available

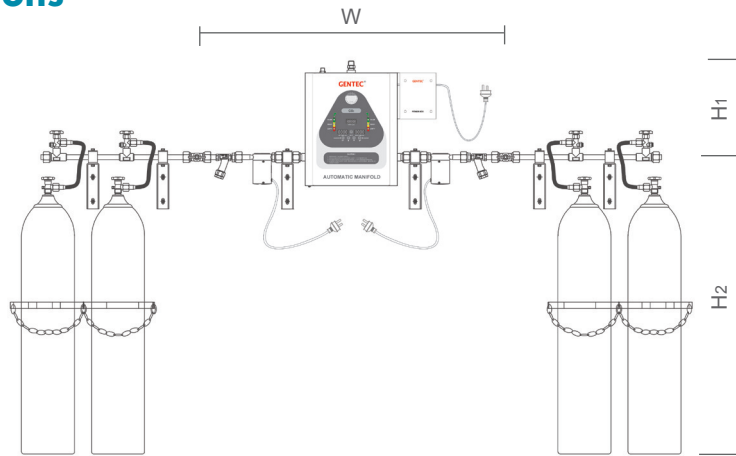
## Standard Construction

- 24" flexible high pressure stainless steel braided pigtails\* with check valve, Rigid copper pigtails are standard when gas service is oxygen. Pigtails for acetylene models are equipped with dry flashback arrestor.
- For Acetylene or Fuel gas model, regulator outlet is equipped with a dry flashback arrestor (FA30PF) for additional safety. As an option, hydraulic flashback arrestors are available for an additional charge.
- Carbon Dioxide manifold systems are provided with H900DG electric heating regulator. Siphon cylinder should not be used in the manifold system.

## Specifications

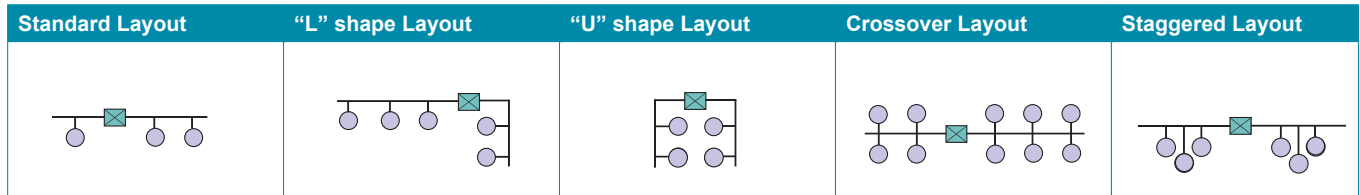
| Series     | Gas Service                | Max. Inlet Pressure<br>psi (bar) | Delivery Pressure<br>psi (bar) | Max. Delivery Flow<br>SCFH (m <sup>3</sup> /h) | Outlet<br>Connection | Pigtail<br>Specifications |
|------------|----------------------------|----------------------------------|--------------------------------|--|----------------------|---------------------------|
| GM2-DL-O2  | Oxygen                     | 3000 (207)                       | 10~200 (0.7~14)                | 3500 (100)                                     | 3/4" NPT (M)         | Pigtail, CGA540           |
| GM2-DL-Y   | Acetylene                  | 400 (28)                         | 2~15 (0.14~1)                  | 700 (20)                                       | 3/4" NPT (M)         | Pigtail, CGA510           |
| GM2-DL-F   | Propane                    | 400 (28)                         | 5~125 (0.35~8.6)               | 1050 (30)                                      | 3/4" NPT (M)         | Pigtail, CGA510           |
| GM2-DM-CO2 | Carbon Dioxide             | 3000 (207)                       | 5~125 (0.35~8.6)               | 1050 (30)                                      | 3/4" NPT (M)         | Pigtail, CGA320           |
| GM2-DM-IN  | Argon, Helium,<br>Nitrogen | 3000 (207)                       | 10~200 (0.7~14)                | 3500 (100)                                     | 3/4" NPT (M)         | Pigtail, CGA580           |

## Installation Dimensions



| Gas Service                          | W in.(mm)   | H1 in.(mm) | H2 in.(mm)  |
|--------------------------------------|-------------|------------|-------------|
| Oxygen, Air, Argon, Nitrogen, Helium | 41.3 (1050) | 15.8 (400) | 55.1 (1400) |
| Acetylene, Propane                   | 59.8 (1520) | 21.7 (550) | 55.1 (1400) |
| Carbon Dioxide                       | 55.5 (1410) | 15.8 (400) | 55.1 (1400) |

## Manifold System Layouts



## Ordering Information

| GM2-D                               | L  | - O2   | - U  | - ( 5 x 5  | - S  | 2 )   |
|-------------------------------------|--|--|--|--|--|---|
| Series                              | Delivery Pressure  | Gas Service  | Standard Code  | Number of Cylinders (left-hand / right-hand)   | Manifold System Layout   | Cylinder Valve Spacing  |
| automatic manifold system (Digital) | USA (ISO)<br>L: 55 psi (0.5 MPa)<br>M: 100 psi (0.8 MPa)<br>H: 185 psi (1 MPa) | X: Oxygen<br>Y: Acetylene<br>F: Propane<br>C: Carbon Dioxide<br>IN: Ar, He, N <sub>2</sub> | U: USA Standards<br>E: ISO Standards<br>UE: Canada Standards | 1 x 2: One cylinder on the left, Two cylinders on the Right<br>5 x 5: Five cylinders on the left, Five cylinders on the Right<br>... | S: Standard layout<br>L: “L” Shape layout<br>U: “U” shape layout<br>D: Crossover layout<br>X: Staggered layout | 1: 5” (127 mm)<br>2: 10” (254 mm)<br>3: 13” (330 mm)<br>4: 18” (457 mm) |

Note: Direction of piping (Right or Left) is indicated by facing the manifold.

Example: GM2-DL-O2-U-(5x5-S2) indicates a 5\*5 oxygen cylinder automatic manifold system. Distance between two cylinders is 10” on standard horizontal layout.  
 NFPA99 color code (USA)  
 GM2-DL-O2-U-(0x0) indicates an oxygen changeover system with filters and master shutoff valves. NFPA99 color code (USA)  
 GM2-DL-O2-U indicates an oxygen changeover system only. NFPA99 color code (USA)