

Modular Surface-Mount Components and Seals



- 1.5 in. (38.1 mm) C-seal modular design
- Valves: manual and pneumatic diaphragm and bellows-sealed designs
- Regulators: manual and preset, high-flow models
- Gaskets: C-seal style for 1-, 2-, and 3-port configurations

Surface-Mount Components

Low-Pressure Diaphragm Valves, DP Series



Directional



Locking



Toggle



Pneumatic

For additional information, see the Swagelok *Springless Diaphragm Valves for High Performance—DP Series* catalog, MS-01-165.

Features

- Pressure rating: 250 psig (17.2 bar)
- Temperature rating: -10 to 150°F (-23 to 65°C)
- Directional handle—quarter-turn actuation with visual indication of open and closed position
- Toggle handle—spring-loaded toggle with lockout capability (can be locked in the closed position only)
- Integral lockout handle—quarter-turn actuation with lockout safety feature to prevent actuation (can be locked in the closed position only)
- Interchangeable pneumatic and manual actuators

Ordering Information

Manual Actuators	Ordering Numbers	
	2-Port	3-Port
Directional	6LVV-MSM-DP-2-P	6LVV-MSM-DP-3-P
Integral lockout	6LVV-MSM-DPL-2-P	6LVV-MSM-DPL-3-P
Toggle	6LVV-MSM-DPT-2-P	6LVV-MSM-DPT-3-P
Pneumatic Actuators	2-Port	3-Port
Normally closed	6LVV-MSM-DP-2-P-C	6LVV-MSM-DP-3-P-C
Normally open	6LVV-MSM-DP-2-P-O	6LVV-MSM-DP-3-P-O

Handle Color Options

Standard handle color is blue. To order an optional color, add a color designator to the ordering number. Example: 6LVV-MSM-DPT-2-P-**RD**

Handle Color	Designator
Black	-BK
Green	-GR
Orange	-OG
Red	-RD
White	-WH
Yellow	-YW

Indicator Switch Option

To order a **normally closed** pneumatically actuated valve with an indicator switch, add **M** to the ordering number.

Example: 6LVV-MSM-DP-2-P-**CM**

Bellows-Sealed Metering Valves, BM Series



Features

- Pressure rating: 700 psig (48.2 bar)
- Temperature rating: -20 to 600°F (-28 to 315°C)
- Micrometer handle for precise, repeatable flow settings

Ordering Information

Ordering Numbers	
2-Port	3-Port
6LVV-MSM-BM-2	6LVV-MSM-BM-3

For additional information, see the Swagelok *Bellows-Sealed Metering Valves—BM Series* catalog, MS-01-23.

Surface-Mount Components

High-Flow Regulators, HF Series



For additional information, see the Swagelok *Compact, High-Flow Gas Regulators—HF Series* catalog, MS-01-156, for preset models, and the Swagelok *High-Flow Manual Gas Regulators—HF Series* catalog, MS-02-157, for manual models.

Features

- Inlet pressure rating: 1000 psig (68.9 bar) for preset models; 500 psig (34.4 bar) for manual models
- Outlet pressure rating: vacuum to 150 psig (10.3 bar) for preset models; 100 psig (6.8 bar) for manual models
- Temperature rating: -10 to 150°F (-23 to 65°C)
- Flow rates up to 200 std L/min
- Preset models can be factory-charged to a specific delivery pressure or set up for remote adjustment of delivery pressure.
- Manually adjustable models are offered with a choice of three spring ranges for delivery pressure.

Ordering Information

Regulators

Model	Basic Ordering Number
	2-Port
Preset	SS-MSM-HFD3B-PXX ^①
Manual	SS-MSM-HFM3B-P ^②

① For a complete ordering number, change **XX** to a factory-set outlet pressure of **10, 20, 30,** or **50** psig (0.69, 1.3, 2.0, or 3.4 bar).

Example: SS-MSM-HFD3B-P10

② To order a complete assembly, order a regulator and a spring kit. See **Spring Kits for Manual Models** table at right for ordering numbers.

Spring Kits for Manual Models

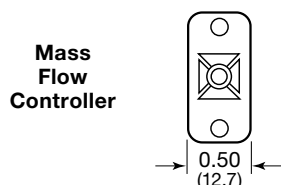
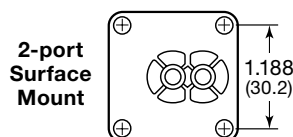
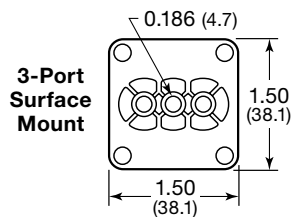
Pressure Range psig (bar)	Kit Ordering Number
Vacuum to 25 (1.7)	177-13K-HFM-A
5 to 50 (0.34 to 3.4)	177-13K-HFM-B
10 to 100 (0.68 to 6.8)	177-13K-HFM-C

Gaskets and Gasket Assemblies

- C-seal for a 1.5 in. (38.1 mm) modular system
- 316L stainless steel material of construction
- Helium leak-tight integrity to less than 1×10^{-9} std cm³/s

Ordering Information and Dimensions

Dimensions, in inches (millimeters), are for reference only and are subject to change.



Gasket Description	Ordering Number	Assembly Requirements
3-port surface mount	201097	1 for each 3-port surface-mount component
2-port surface mount	201096	1 for each 2-port surface-mount component
Mass flow controller	201098	2 for each mass flow controller

Safe Product Selection

When selecting a product, the total system design must be considered to ensure safe, trouble-free performance. Function, material compatibility, adequate ratings, proper installation, operation, and maintenance are the responsibilities of the system designer and user.

WARNING

Do not mix/interchange Swagelok products or components not governed by industrial design standards, including Swagelok tube fitting end connections, with those of other manufacturers.

Warranty Information

Swagelok products are backed by The Swagelok Limited Lifetime Warranty. For a copy, visit swagelok.com or contact your authorized Swagelok representative.