Digital Valve Control Module (VCM)

VCM Series

- Up to six network-controlled pilot valves
- LED valve status indicators
- Threaded end connections for inlet, outlets, and exhaust
- Integrates easily with conventional or Swagelok® modular platform component (MPC) systems
- DeviceNet™ network interface
- IP64 ingress protection
Valve Control Module (VCM)

The Swagelok® VCM uses a sophisticated control and monitoring system to operate up to six pneumatic stream selecting valves or other discrete valves. This compact system reduces complicated cabling and minimizes overall power consumption.

Features

- 300 series stainless steel construction.
- Network-controlled automatic valve actuation.
- Indicator LEDs for pilot valve state, network status, and module status.
- Threaded end connections for inlet, outlets, and exhaust; push-to-connect fittings available for 1/8 in. plastic tubing.
- UL certified for use in hazardous areas.
- Proximity sensor interface option to ensure proper valve actuation.

Operation

The schematic shows the powered-off state—all valves are closed. For complete information on VCM setup and operation, see the Swagelok Valve Control Module User’s Manual, MS-13-221.
Technical Data

Operating Medium
Compressed air, lubricated or unlubricated, 40 µm filtration

Operating Pressure Range
40 to 116 psig (2.8 to 7.9 bar)

Operating Temperature
23 to 122°F (–5 to 50°C)

Storage Temperature
–4 to 140°F (–20 to 60°C)

Power
■ Voltage input: 11 to 28 V (dc)
■ Maximum current draw: 310 mA (dc) at 24 V (dc)

Approvals / Compliance
■ Class I, Division 2, Groups C, D. Temperature class T4A
■ ANSI/ISA 12.12.01
■ UL 61010-1
■ CSA C22.2 No. 213-M
■ CSA C22.2 No. 61010-1
■ DeviceNet Conformance Tested®, vendor ID 1165

Electromagnetic Compatibility
■ EN 61326-1:2006
■ RF Emissions: EN 55011
■ ESD Immunity: EN 61000-4-2
■ RF Immunity: EN 61000-4-3
■ EFT Immunity: EN 61000-4-4
■ Conducted Immunity: EN 61000-4-6

Proximity Sensor Interface Options
■ No interface, IP64
■ Terminal strip with sealed enclosure, IP64

Vibration / Shock Resistance
■ Vibration: sinusoidal 9 to 200 Hz, 5 g acceleration
■ Vibration: random 20 to 500 Hz, 15.5 g average acceleration
■ Shock: pulse 70 m/s² (7.2 g)

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

Ordering Information
Select an ordering number.

<table>
<thead>
<tr>
<th>Proximity Sensor Interface</th>
<th>Ordering Number</th>
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<tbody>
<tr>
<td>No interface</td>
<td>SS-VCM-D-6-0</td>
</tr>
<tr>
<td>Terminal strip with sealed enclosure</td>
<td>SS-VCM-D-6-2</td>
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Push-to-connect fittings, used to attach 1/8 in. plastic tubing to the inlet, outlet, and exhaust connections, are available separately. See page 4.
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.

Caution: Do not mix or interchange parts with those of other manufacturers.

Accessories

Push-to-Connect Fittings
This kit contains eight 10-32 face-seal push-to-connect fittings to be used when using 1/8 in. plastic tubing with the VCM.
Ordering number: MS-VCM-KIT2

Maintenance Kits
There are no field-maintainable components within the VCM. Contact your authorized Swagelok representative for assistance.
Replacement enclosure hardware kits are available.

Enclosure Hardware
This kit contains the components used to attach and seal the terminal strip enclosure included with the SS-VCM-D-6-2 model. The contents of the kit are included with that model when shipped from the factory.
- 6 screws
- 6 washers
- 1 interface cover gasket
- 6 acorn nuts
- 6 cable gland O-rings
- 6 cable glands
Ordering number: MS-VCM-KIT1

Accessories

Push-to-Connect Fittings
This kit contains eight 10-32 face-seal push-to-connect fittings to be used when using 1/8 in. plastic tubing with the VCM.
Ordering number: MS-VCM-KIT2

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