

CM Series Compact Diaphragm Valves

Sample Specification

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1.0 Diaphragm Valves - CM

1.1 Material

- The valve body, including end connectors and unions shall be made of PVC compound which shall meet or exceed the requirements of cell classification 12454 according to ASTM D1784.
- or The valve body, including end connectors and unions shall be made of Corzan® CPVC compound which shall meet or exceed the requirements of 23447 according to ASTM D1784.
- or The valve body, including end connectors and unions shall be made of stabilized PP homopolymer compound, also containing a RAL 7032 pigment, which shall meet or exceed the requirements of Type I Polypropylene according to ASTM D4101-86.
- or The valve body, including end connectors and unions shall be made of virgin, non-regrind PVDF compound which shall meet or exceed the requirements of Table 1 according to ASTM D3222.
- These compounds shall comply with standards that are equivalent to NSF Standard 61 for potable water.
- The valve bonnet assembly shall be made of reinforced polyamide (nylon).

1.2 Diaphragm

- The diaphragm shall be made of EPDM which shall comply with standards that are equivalent to NSF Standard 61 for potable water.
- or The diaphragm shall be made of Viton® (FPM) which shall comply with standards that are equivalent to NSF Standard 61 for potable water.
- or The diaphragm shall be made of PTFE (backed with EPDM) which shall comply with standards that are equivalent to NSF Standard 61 for potable water.

- 1.3** All other wetted and non-wetted parts of the valves shall comply with standards that are equivalent to NSF Standard 61 for potable water.

2.0 Connections

2.1 Socket style

- The IPS socket PVC end connectors shall conform to the dimensional standards ASTM D2466 and ASTM D2467.
- or The IPS socket CPVC end connectors shall conform to the dimensional standard ASTM F439.
- or The Metric socket PP end connectors shall conform to the dimensional standard ISO 3609.
- or The Metric socket PVDF end connectors shall conform to the dimensional standard ISO 10931.

2.2 Spigot style

- The Metric spigot PP end connectors shall conform to the dimensional standard ISO 3609.
- or The Metric spigot PVDF end connectors shall conform to the dimensional standard ISO 10931.

3.0 Design Features

- All valves shall be weir-style for throttling applications.
- All bodies to be used with EPDM or Viton® diaphragms shall feature raised molded sealing rings (concentric).
- All bodies to be used with PTFE diaphragms shall be machined flat.
- All PTFE diaphragms shall feature a raised molded ring to combine sealing performance and longer life.
- All through bolts shall be made of 304 stainless steel.
- Bolts will thread directly into integrally molded brass inserts in the bonnet.
- All manual valves shall have a rising position indicator.
- Bodies of all sizes and materials shall have mounting brass inserts.

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3.1 Actuators

- All actuators shall be made of reinforced polyamide (nylon).
- All actuators shall feature a smooth top (no nut holes) for cleanliness.
- The edge of the actuator membrane shall be inside of the actuator protective housing.
- All springs shall be cut from spring grade steel for maximum memory life and epoxy coated for maximum chemical resistance.
- The following accessories shall be available for all actuators: position indicator, stroke limiter, stroke limiter with position indicator, limit switch, limit switch box, 3-15 psi positioner, 4-20 mA positioner, solenoid pilot valve.

3.2 Pressure Rating

- All valves shall be rated at 90 psi at 73°F.

3.3 Markings

- All valves shall be marked to indicate size, material designation, and manufacturers name or trade mark.

3.4 Color Coding

- All PVC valves shall be color-coded dark gray.
- or All CPVC valves shall be color-coded light gray.
- or All PP valves shall be color-coded beige gray.
- or All PVDF valves shall not be color-coded and be white in appearance.

4.0 All valves shall be Xirtec® 140, Corzan®, PP or PVDF by IPEX or approved equal.

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About IPEX

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Markets served by IPEX group products are:

- Electrical systems
- Telecommunications and utility piping systems
- Industrial process piping systems
- Municipal pressure and gravity piping systems
- Plumbing and mechanical piping systems
- Electrofusion systems for gas and water
- Industrial, plumbing and electrical cements
- Irrigation systems
- PVC, CPVC, PP, PVDF, PE, ABS, and PEX pipe and fittings

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Toll Free: 866 473-9462

