

Integra® Pneumatic Valves, 1" Orifice, Sampling, Normally Closed

Ideal for high-flow bulk chemical distribution applications

Designed for applications where greater flow is required, the molded 1" orifice Integra® valve is ideal for valve boxes and bulk chemical distribution applications. The vacuum rated Integra valve can be installed in the upstream side of pressure vacuum vessels and pumps.

The valve maintains a high flow rate while reducing the footprint in manufacturer's equipment. This Integra valve illustrates our ability to address customer space constraints while still providing superior performance.

APPLICATIONS

Our 1" orifice valves are ideal in applications where greater flow is required, including:

- CMP slurry, ultrapure water and high-purity, corrosive chemical handling
- Valve boxes and high flow bulk chemical distribution applications
- Upstream or downstream side of pressure vacuum vessels and pumps
- Chemical line sizes in 3/4" to 1"



Ideal for valve boxes and bulk chemical distribution applications.

FEATURES & BENEFITS

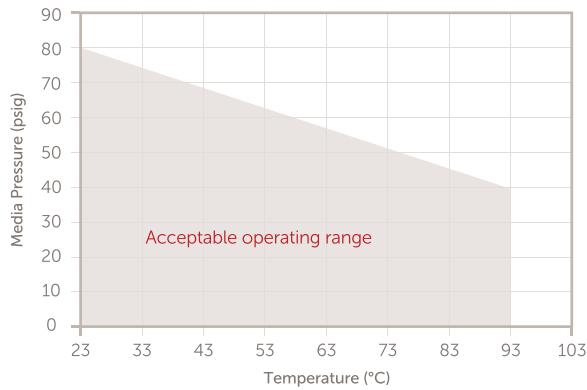
| | |
|---|--|
| All PFA and PTFE wetted parts | Provide chemical resistance in high purity, corrosive chemical applications |
| PVDF actuator components and no external wetted parts | Means lower contamination potential in the event of a media leak or exposure to harsh external environments |
| Unique body design | Allows for 100% cavity drainage to prevent fluid entrapment, while top loading design allows for field service |
| Available with Flaretek® or PureBond® pipe connections | Provides fluid system design flexibility and versatility |
| Optional remote electronic position indication | Allows convenient valve open and closed position monitoring |

SPECIFICATIONS

| | |
|----------------------------------|--|
| Pressure Range | 29" Hg to 80 psig (980 mbar to 552 kPa) @ 70°F (21°C) fluid temperature 29" Hg to 40 psig (980 mbar to 276 kPa) @ 200°F (93°C) fluid temperature |
| Ambient Temperature | 100°F (38°C) |
| Pneumatic Supply Pressure | 50 psig (345 kPa) minimum to 80 psig (552 kPa) maximum |
| Pneumatic Supply Port | 1/8" FNPT |
| Materials | All wetted parts are PFA and PTFE. Exterior actuator parts are PVDF. Interior actuator parts are PVDF, Viton® and PFA. The springs are fluoropolymer coated stainless steel. |

PERFORMANCE DATA

Temperature vs. Media Pressure

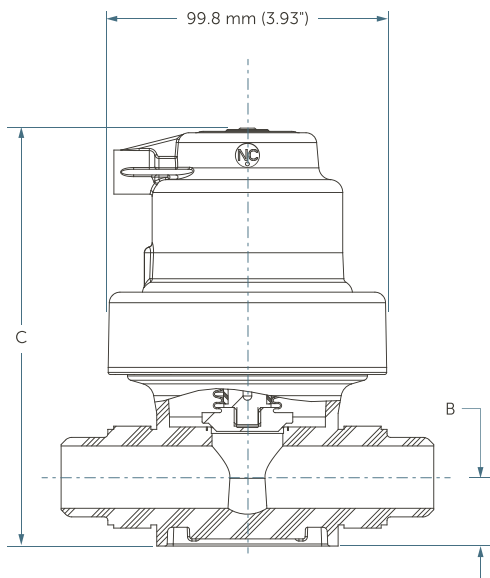


3-port Sampling Valve Flow Path

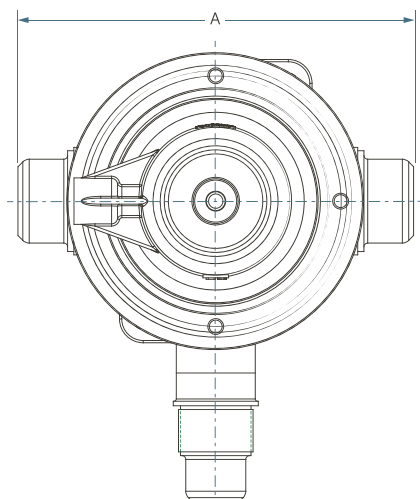


DIMENSIONS

Front View



Top View

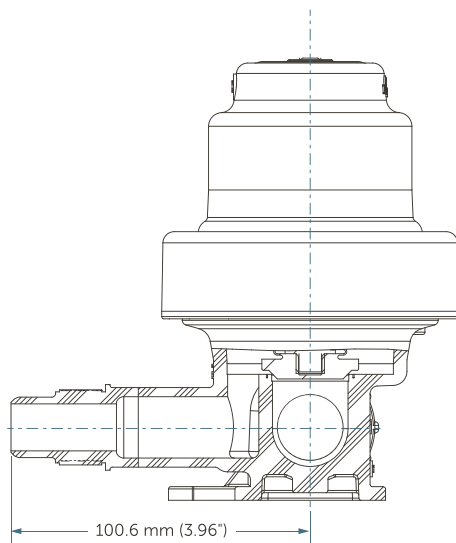


Dimensions

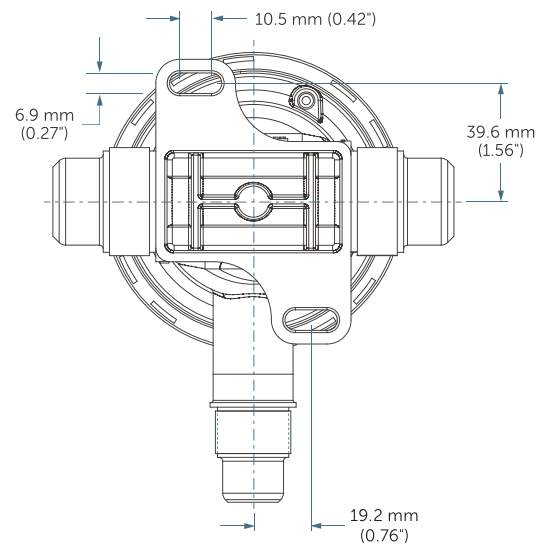
DIMENSIONS

| Port connection | Flow factor C_v (K_v) | Flow factor K_v | A | B | C |
|---------------------------|-----------------------------|-------------------|------------------|-----------------|------------------------------|
| 3/4" Flaretek | 7.2 | 103.0 | 129.0 mm (5.08") | 24.4 mm (0.96") | 164.3 mm (6.47") |
| 3/4" PrimeLock | 7.2 | 103.0 | 141.7 mm (5.58") | 24.4 mm (0.96") | 164.3 mm (6.47") |
| 3/4" PureBond | 10.4 | 149.0 | 167.4 mm (6.59") | 24.4 mm (0.96") | 164.3 mm (6.47") |
| 1" Flaretek | 12.4 | 177.1 | 133.6 mm (5.26") | 24.4 mm (0.96") | 164.3 mm (6.47") |
| 1" Super 300 Type Pillar* | 12.4 | 177.1 | 147.1 mm (5.79") | 26.9 mm (1.06") | 166.9 mm (6.57") |
| 1" PrimeLock | 12.4 | 177.1 | 150.9 mm (5.94") | 28.4 mm (1.12") | 168.4 mm (6.63") |
| 1" PureBond | 13.6 | 194.2 | 167.4 mm (6.59") | 24.4 mm (0.96") | 164.3 mm (6.47") |
| 1 1/4" Extended Flaretek | 13.6 | 194.2 | 170.7 mm (6.72") | 39.1 mm (1.54") | 179.1 mm (7.05") with spacer |

Side View

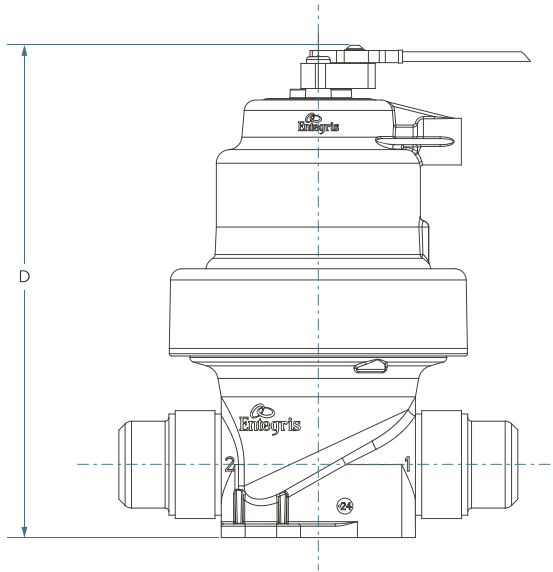


Bottom View



DIMENSIONS

Position Sensor



| Port 1 | Port 2 (sampling) | Port 3 | Dimension D |
|---------------|-------------------|---------------|------------------|
| 3/4" Flaretek | 3/4" Flaretek | 3/4" Flaretek | 6.49" (164.8 mm) |
| 3/4" PureBond | 3/4" Flaretek | 3/4" PureBond | 6.49" (164.8 mm) |
| 1" Flaretek | 3/4" Flaretek | 1" Flaretek | 6.49" (164.8 mm) |
| 1" PureBond | 3/4" Flaretek | 1" PureBond | 6.49" (164.8 mm) |
| 1" PureBond | 3/4" Flaretek | 1" Flaretek | 6.49" (164.8 mm) |

A Remote Position Indication option is available to monitor valve open and closed positions electronically.

Note: To enable the remote position indication option you must special order the Omron® sensor (-OM) on the valve. In addition, order Omron position sensor indicator (EE-SX770R or EE-SX770A), which are sold separately.

ORDERING INFORMATION

| PART NUMBER | PORT 1 CONNECTION | SAMPLE PORT CONNECTION | PORT 3 CONNECTION | OPTIONS |
|-------------------|---------------------|------------------------|---------------------|-----------------------|
| DS16-SC-12F12F | 3/4" Flaretek® | 3/4" Flaretek® | 3/4" Flaretek® | PVDF Flaretek® nut |
| DS16-SC-12F12F-3 | 3/4" Flaretek® | 3/4" Flaretek® | 3/4" Flaretek® | PFA Flaretek® nut |
| DS16-SC-12F12F-6 | 3/4" Flaretek® | 3/4" Flaretek® | 3/4" Flaretek® | CPFA Flaretek® nut |
| DS16-SC-12F12F-II | 3/4" Flaretek® | 3/4" Flaretek® | 3/4" Flaretek® | PFA FlareLock® II nut |
| DS16-SC-12F12F-OM | 3/4" Flaretek® | 3/4" Flaretek® | 3/4" Flaretek® | Omron position sensor |
| DS16-SC-12P12F | 3/4" PureBond® pipe | 3/4" Flaretek® | 3/4" PureBond® pipe | PVDF Flaretek® nut |
| DS16-SC-12P12F-3 | 3/4" PureBond® pipe | 3/4" Flaretek® | 3/4" PureBond® pipe | PFA Flaretek® nut |

ORDERING INFORMATION

| PART NUMBER | PORT 1 CONNECTION | SAMPLE PORT CONNECTION | PORT 3 CONNECTION | OPTIONS |
|--------------------|---------------------|------------------------|---------------------|-----------------------|
| DS16-SC-12P12F-6 | 3/4" PureBond® pipe | 3/4" Flaretek® | 3/4" PureBond® pipe | CPFA Flaretek® nut |
| DS16-SC-12P12F-II | 3/4" PureBond® pipe | 3/4" Flaretek® | 3/4" PureBond® pipe | PFA FlareLock® II nut |
| DS16-SC-12P12F-OM | 3/4" PureBond® pipe | 3/4" Flaretek® | 3/4" PureBond® pipe | Omron position sensor |
| DS16-SC-16F12F | 1" Flaretek® | 3/4" Flaretek® | 1" Flaretek® | PVDF Flaretek® nut |
| DS16-SC-16F12F-3 | 1" Flaretek® | 3/4" Flaretek® | 1" Flaretek® | PFA Flaretek® nut |
| DS16-SC-16F12F-6 | 1" Flaretek® | 3/4" Flaretek® | 1" Flaretek® | CPFA Flaretek® nut |
| DS16-SC-16F12F-II | 1" Flaretek® | 3/4" Flaretek® | 1" Flaretek® | PFA FlareLock® II nut |
| DS16-SC-16F12F-OM | 1" Flaretek® | 3/4" Flaretek® | 1" Flaretek® | Omron position sensor |
| DS16-SC-16P12F | 1" PureBond® pipe | 3/4" Flaretek® | 1" PureBond® pipe | PVDF Flaretek® nut |
| DS16-SC-16P12F-3 | 1" PureBond® pipe | 3/4" Flaretek® | 1" PureBond® pipe | PFA Flaretek® nut |
| DS16-SC-16P12F-6 | 1" PureBond® pipe | 3/4" Flaretek® | 1" PureBond® pipe | CPFA Flaretek® nut |
| DS16-SC-16P12F-II | 1" PureBond® pipe | 3/4" Flaretek® | 1" PureBond® pipe | PFA FlareLock® II nut |
| DS16-SC-16P12F-OM | 1" PureBond® pipe | 3/4" Flaretek® | 1" PureBond® pipe | Omron position sensor |
| DS16-SC-16PF12F | 1" PureBond® pipe | 3/4" Flaretek® | 1" Flaretek® | PVDF Flaretek® nut |
| DS16-SC-16PF12F-3 | 1" PureBond® pipe | 3/4" Flaretek® | 1" Flaretek® | PFA Flaretek® nut |
| DS16-SC-16PF12F-6 | 1" PureBond® pipe | 3/4" Flaretek® | 1" Flaretek® | CPFA Flaretek® nut |
| DS16-SC-16PF12F-II | 1" PureBond® pipe | 3/4" Flaretek® | 1" Flaretek® | PFA FlareLock® II nut |
| DS16-SC-16PF12F-OM | 1" PureBond® pipe | 3/4" Flaretek® | 1" Flaretek® | Omron position sensor |

FOR MORE INFORMATION

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit entegris.com and select the [Contact Us](#) link to find the customer service center nearest you.

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