

- > Designed for use with Cadent™ 3 syringe pumps and IMI Norgren 3cm syringes
- > Bi-directional flow valves; not intended for use as shut-off or relief valves
- > Rated to 100 psi
- > Available in plug style with PTFE or in face style with PPS/XP-113 or Ceramic
- > Highly inert to most chemistries and designed for long life
- > Available in distribution and non-distribution configurations
- > Suitable for use in analytical, biotechnology and diagnostics instruments



Specifications

Physical

Valve Overall Dimensions

Diameter: 1.40 in.

Length: 1.78 in.

1.91 in. (8way)

2.30 in. (12way)

Mass

30 grams

Life cycle¹ (Minimum)

100,000 [Plug]

100,000 [Plastic Face Seal]

500,000 [Ceramic Face Seal]

Environmental

Operating Temperature

50°F to 104°F (10°C to 40°C)

Operating Humidity

5% to 95% relative humidity,
non-condensing at 104°F (40°C)

Storage Temperature

-27°F to 160°F (-33°C to 71°C)

WEEE & RoHS Compliant

Mechanical

Orifice Diameter

See table for available diameters

Port Specifications

1/4-28 flat bottom threaded ports, 0.245" deep

Rated pressure

Vacuum² to 100 psi

Syringe Locking Set Screw Torque

1.0 in-lbs.

Valve Mounting Hardware (supplied) Torque

5.0 in-lbs.

¹Tested with DI Water using IMI Standard protocol

²Vacuum pressure: -25inHg maximum at 2750ft elevation (1psia max).

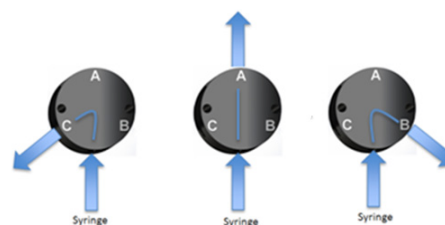
Valve Flow Configuration Types

Distribution

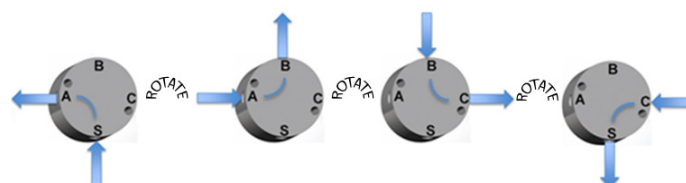
Distribution valves have a flow path configuration that connects the syringe port to any of the other fluid ports through a central common port. Flow is bi-directional for each connection. The naming of each valve type is determined by the number of ports available to connect with the syringe port i.e. the syringe port is not counted.

Non-Distribution

A non-distribution valve connects adjacent ports on a valve to allow fluid to flow between them. Fluid may be drawn into the syringe only from one of the adjacent ports. Non-distribution valves allow a "bypass" fluid path where the fluid flows through the valve without entering the syringe. An external pressure system is required to move fluids through any flow paths not involving the syringe port. The naming of each valve type is determined by the number of possible fluid paths.



Possible flow paths on a 3-Way Distribution Valve



Possible flow paths on a 4-Way Non-Distribution Valve

Face Seal Valves - Ceramic

P/N	Orifice Diameter	Internal Volume (µL)	Valve Type
30138	0.031"	13.9	2-Way Distribution
30149	0.059"	53.9	2-Way Distribution
30139	0.031"	13.9	3-Way Distribution
30150	0.059"	53.4	3-Way Distribution
30140	0.031"	14.3	4-Way Distribution
30151	0.059"	53.4	4-Way Distribution
30141	0.031"	14.1	5-Way Distribution
30152	0.040"	23.5	5-Way Distribution
30142	0.031"	13.9	6-Way Distribution
30153	0.040"	23.5	6-Way Distribution
101034	0.031"	16.9	8-Way Distribution
101035	0.040"	30.1	8-Way Distribution
101036	0.031"	21.4	12-Way Distribution
101038	0.040"	33.6	12-Way Distribution
30144	0.031"	14.0	3-Way Non-Distribution
30155	0.059"	52.8	3-Way Non-Distribution
30145	0.031"	12.9	4-Way Non-Distribution
30156	0.059"	49.0	4-Way Non-Distribution
30147	0.031"	12.2	6-Way Non-Distribution
30158	0.040"	20.5	6-Way Non-Distribution

Wetted Materials: PEEK, Alumina Ceramic, FFKM PTFE

Face Seal Valves - Plastic

P/N	Orifice Diameter	Internal Volume (µL)	Valve Type
23324	0.059"	48.7	3-Way Distribution
24643	0.020"	5.30	4-Way Distribution
23325	0.059"	48.7	4-Way Distribution
23326	1mm	23.6	5-Way Distribution
23327	1mm	23.6	6-Way Distribution
23562	0.059"	48.1	3-Way Non-Distribution
23563	0.059"	48.1	4-Way Non-Distribution

Wetted Materials: PPS, XP-113, PTFE

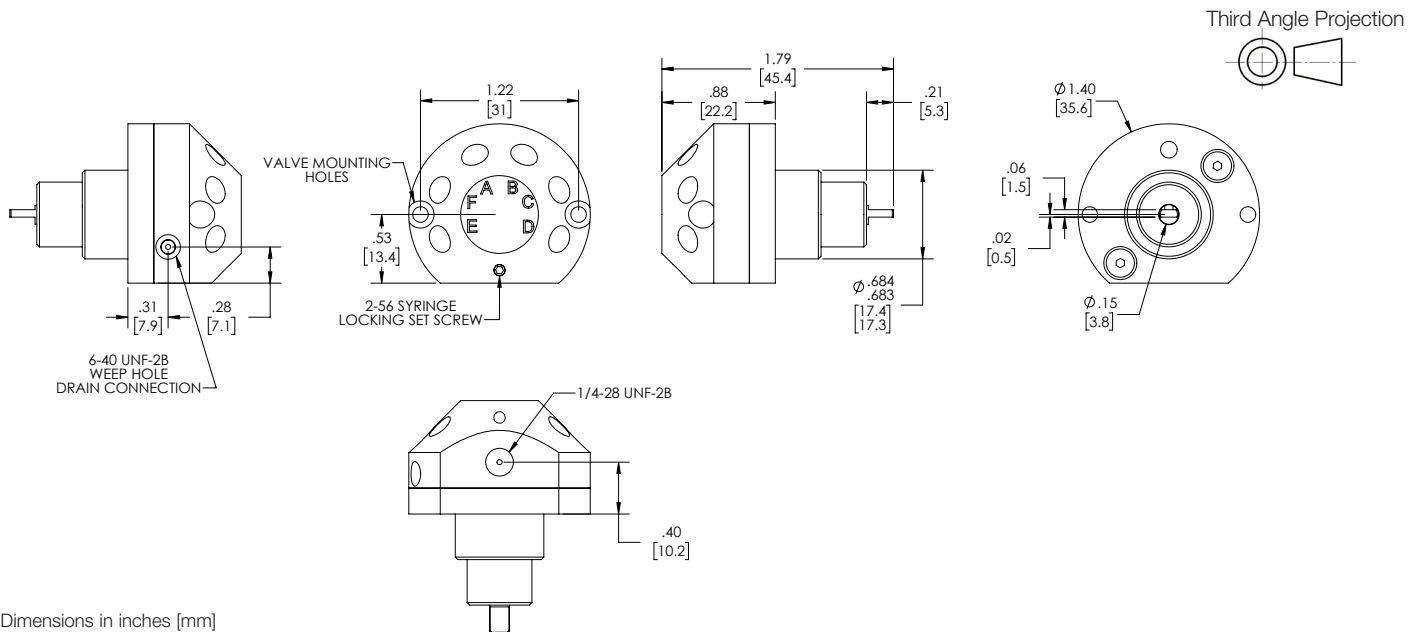
Optional Accessories

P/N	Description
24528	Weep Hole Fitting - PEEK
24529	Weep Hole Fitting - Stainless Steel
18659	Port Plug Screw, use with seal p/n 18781

Seal Washers

P/N	Description
14271	Teflon, 0.070 ID Hole, for 0.059" orifice
18031	Teflon, 0.095 ID Hole, for 0.076" orifice
18033	Teflon, 0.125 ID Hole, for 0.089" orifice
18781	Teflon, No hole, for port plug

For other customization requests, contact us at IMIKloehncustomersupport@imi-precision.com



Plug Valves

P/N	Orifice Diameter	Internal Volume (µL)	Valve Type	P/N	Orifice Diameter	Internal Volume (µL)	Valve Type
23272	0.059"	8.51	1-Way Distribution	28391	0.031"	8.90	3-Way Non-Distribution
20051	0.031"	14.8	2-Way Distribution	28393	0.059"	31.5	3-Way Non-Distribution
20052	0.059"	52.3	2-Way Distribution	28395	0.076"	51.5	3-Way Non-Distribution
20053	0.076"	86.6	2-Way Distribution	28397	0.031"	8.70	4-Way Non-Distribution
25393	0.031"	14.8	3-Way Distribution	28399	0.059"	30.3	4-Way Non-Distribution
25394	0.059"	51.7	3-Way Distribution	28401	0.076"	49.1	4-Way Non-Distribution
25395	0.076"	23.9	3-Way Distribution				
25396	0.031"	14.7	4-Way Distribution				
25397	0.059"	23.6	4-Way Distribution				
25398	0.076"	85.3	4-Way Distribution				
25399	0.031"	14.7	5-Way Distribution				
25400	1mm	24.3	5-Way Distribution				
25401	0.031"	6.50	6-Way Distribution				
25402	1mm	24.1	6-Way Distribution				

Wetted Materials: PCTFE, PTFE

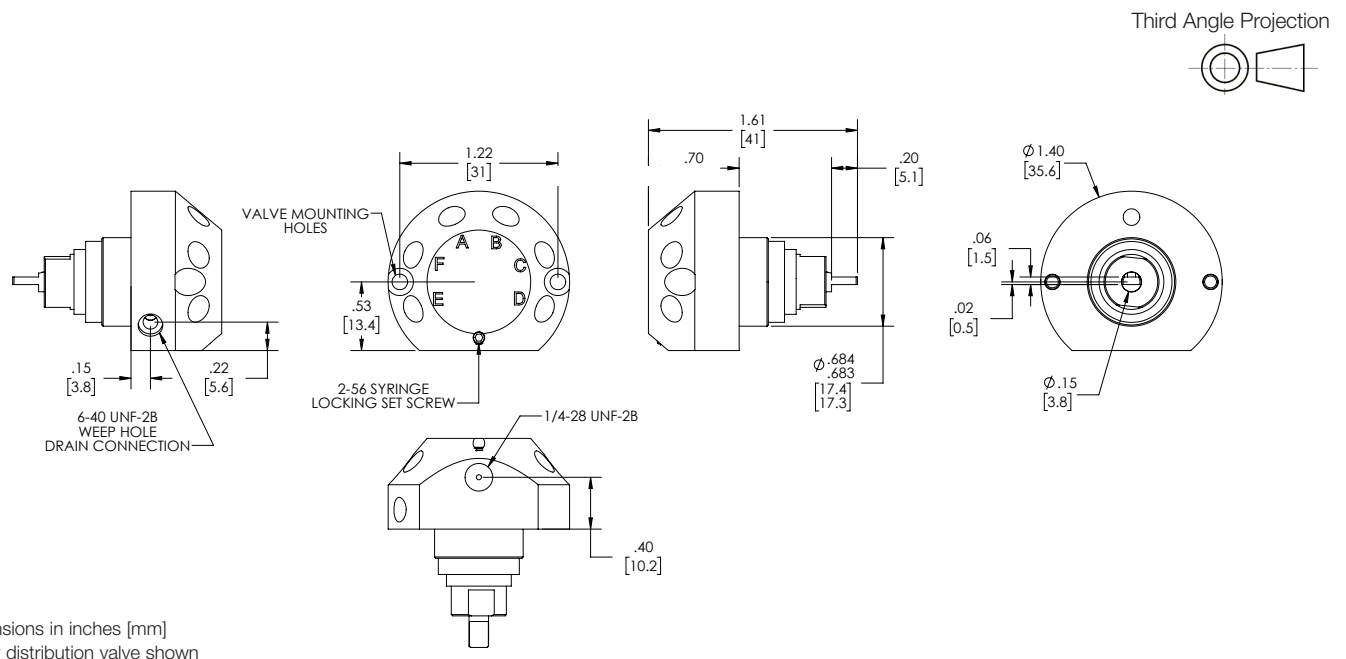
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Warning

Improper selection, misuse, age or malfunction of components used in systems can cause failure in various modes. The system designer is warned to consider the failure modes of all component parts and to provide adequate safeguards to prevent personal injury or damage to equipment or property in the event of such failure modes. System designers and end users are cautioned to consult instruction sheets and specifications available from the factory. The system designer/end user is responsible for verifying that all requirements for the application are met.

Warranty

The products described herein are warranted subject to seller's Standard Terms and Condition of Sale, available at seller's website.

Proposition 65: These products may contain chemicals known to the state of California to cause cancer, or birth defects, or other reproductive harm.