

iDP Valves

300 Series, 2-Port Inert Diaphragm-Poppet Valve



Humphrey

Introducing Humphrey's 300 series iDP 2-way inline and 2-way manifold valves. Inert solenoid valves are designed to control aggressive media in most harsh environments. When size and space require a more compact design consider the 300 series iDP. The flexing diaphragm-poppet design isolates the solenoid from media ensuring sustained performance and long life.

FEATURES

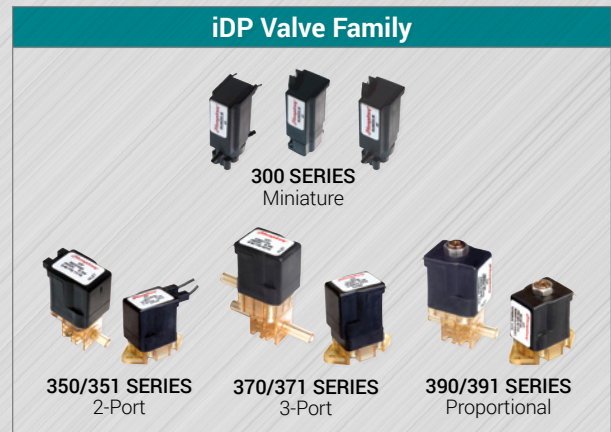
- Inert wetted materials provide broad chemical compatibility:
Body/Fitting Elements – PEEK (Polyethylethylketone)
Diaphragm-Poppet/Seals – Viton®-GF or EPDM
- Max pressure: 40 PSI [2.76 bar] standard
- Barb Valve, Flow rates @ 40 PSI: 50 SLPM air or 1.45 SLPM water
- Manifold Valve, Flow Rate @ 40 PSI: 62 SLPM air or 1.83 SLPM water.
- Coil encapsulation protects from corrosive external fluid exposure.
- Various port types and manifold mounting provides design flexibility.
- Robust design; Tested to beyond 20 million cycles.
- 300 Series, 3-Port Inline Barb Valve also available.



300
2-Port
Inline, Direct Piping



300
2-Port
Manifold Mount



ACCESS ONLINE CATALOG
Obtain 3D CAD Download, CAD Viewer,
2D Dimensional Drawings, Product Images,
DataSheet PDFs, Product Accessories



How to Order

iDP 300 Series, 2-Port

300	7	1	1	3	0	30071130
MODEL 300	BODY 7. Viton®GF* 8. EPDM	BODY STYLE (IN-OUT) 1. 2-Port Inline, NC 4. 2-Port Manifold Mt, NC	PORT TYPES 0. Manifold (No Barbs) 1. 1/16" Tube Barbs 2. 3/32" Tube Barbs 3. 1/8" Tube Barbs	SOLENOID 1. 12 VDC – Pin Connector** 3. 24 VDC – Pin Connector** 5. 12 VDC – Wire Leads 7. 24 VDC – Wire Leads		ORDER EXAMPLE

* Highly Fluorinated Viton®

** Mating Option: Tyco 640442-2
Molex 22-01-2027

iDP Valves

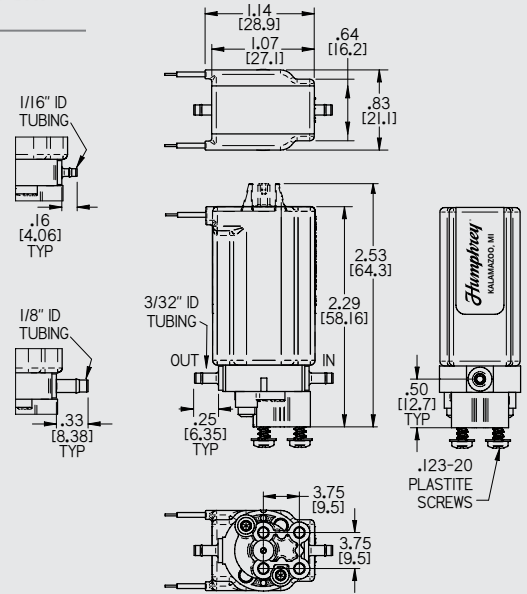
300 Series, 2-Port

SPECIFICATIONS	IDP 300 INLINE	IDP 300 MANIFOLD
TYPE OF OPERATION	Direct Solenoid, Media Separated	
NUMBER OF POSITIONS	2	
FUNCTION	Normally Closed	
MEDIA	Aggressive Liquids and Gases	
WETTED PARTS: BODY AND DIAPHRAGM-POPPET	PEEK, Viton®GF or EPDM	
PRESSURE RANGE – PSI (BAR)	Vacuum to 40 PSI (2.76)	
PIPING TYPE	Inline, Direct Piping	Manifold Mount, Sub-base Piping
WATER FLOW @ 40 PSI (TYP)	1.45 SLPM	1.83 SLPM
AIR FLOW @ 40 PSI (TYP)	50 SLPM	62 SLPM
FLUID TEMPERATURE	-20°C to 95°C	
AMBIENT TEMPERATURE	-20°C to 65°C	
CYCLES/MIN	300	
RESPONSE TIME @ 40 PSI (TYP)	25 msec	
PORT SIZE	1/16", 3/32" or 1/8"	--
ELECTRICAL ENTRY	Plug-In or Lead Wires	
VOLTAGES	12VDC, 24VDC	
VOLTAGE TOLERANCE	±10%	
POWER CONSUMPTION (WATTS)	3.5	
WEIGHT	0.22 lbs	0.27 lbs

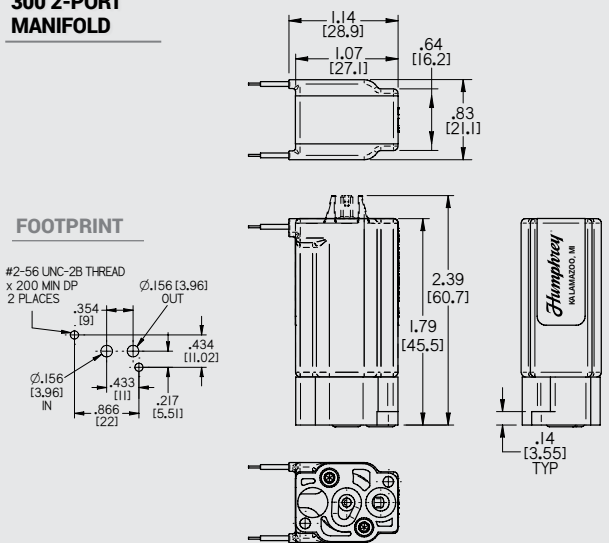
300 SERIES, 2-WAY INTERNAL VOLUMES	1/16" Barb Body	3/32" Barb Body	1/8" Barb Body	Manifold
UNACTUATED UNDER POPPET	0.007in ³	0.007in ³	0.009in ³	0.004in ³
ACTUATED	0.013in ³	0.014in ³	0.017in ³	0.012in ³

DIMENSIONAL DRAWINGS

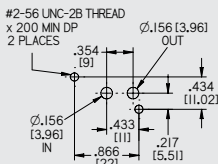
300 2-PORT INLINE



300 2-PORT MANIFOLD



FOOTPRINT



RECOMMENDED MOUNTING HARDWARE

Screws:
SHCS #2-56 x 5/16 with 5/64 Hex Head

Screw Install Tool:
5/64 Hex Head Ball End Screw Driver
(McMaster-Carr 5497A24; Grainger 29RU75)

[] = mm

RECOMMENDED MATING ELECTRICAL CONNECTION || **For Pins:** Tyco 640442-2; Molex 22-01-2027
Lead Wires: Connect to 22 AWG x 24" length

MEDIA COMPATIBILITY

- Citric Acid
- Formaldehyde
- Biological Solutions
- Sodium Hypochlorite
- Dextrose/Sugars
- Dialysate
- Hydrogen Peroxide
- Acetic Acid
- Bleach/Lye
- Most aggressive medias

APPLICATIONS & MARKETS

- Kidney Dialysis
- Analytical Chemistry
- Diagnostic Systems
- Agent Detection
- Environmental Monitoring
- Food and Beverage
- Gaseous Flow Control
- Water Purification
- Clinical Diagnostics

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