

# iDP Valves



**Humphrey®**

## 300 Series, 3-Port Inline Inert Diaphragm-Poppet Valve

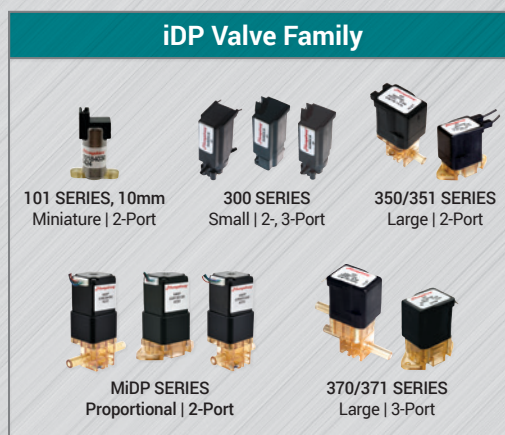
Introducing Humphrey's 300 series iDP 3-way inline valve. Inert solenoid valves are designed to control aggressive media in most harsh environments. When size and space require a more compact design consider the 300 series iDP. The flexing diaphragm-poppet design isolates the solenoid from media ensuring 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
- Flow rates @ 40 PSI: 50 SLPM air or 1.45 SLPM water
- Coil encapsulation protects from corrosive external fluid exposure.
- Various port types and coil inputs provide design flexibility.
- Robust design; Tested to beyond 20 million cycles.
- 300 Series, 2-Port Inline and Manifold Valves also available.



**300**  
3-Port  
Inline, Direct Piping



## How to Order

### iDP 300 Series, 3-Port Inline

300	7	3	1	3	0	ORDER EXAMPLE 30073130
<b>MODEL</b> 300	<b>BODY</b> 7. Viton®GF* 8. EPDM	<b>BODY STYLE (IN-OUT)</b> 3. 3-Port Inline	<b>PORT TYPES</b> 1. 1/16" Tube Barbs 2. 3/32" Tube Barbs 3. 1/8" Tube Barbs	<b>SOLENOID</b> 1. 12 VDC – Pin Connector** 3. 24 VDC – Pin Connector** 5. 12 VDC – Wire Leads 7. 24 VDC – Wire Leads		

\* Highly Fluorinated Viton®

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

# iDP Valves

## 300 Series, 3-Port Inline

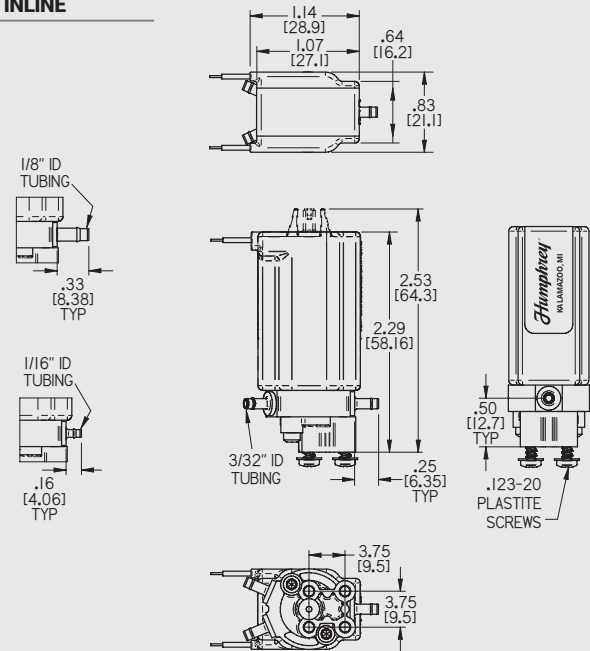
SPECIFICATIONS	IDP 300 3-PORT INLINE
TYPE OF OPERATION	Direct Solenoid, Media Separated
NUMBER OF POSITIONS	2
FUNCTION	Normally Closed
MEDIA	Aggressive Liquids and Gases
WETTED PARTS: BODY AND DIAPHRAGM-POPPET	PEEK, Viton®GF or EPDM
PRESSURE RANGE: DIVERTER – PSI (BAR)	Vacuum to 40 PSI (2.76)
REVERSE PRESSURE RANGE: SELECTOR – PSI (BAR)	Vacuum to 10 PSI (0.7)
PIPING TYPE	Inline, Direct Piping
WATER FLOW @ 40 PSI (TYP)	1.45 SLPM
AIR FLOW @ 40 PSI (TYP)	50 SLPM
FLUID TEMPERATURE	-4°-203°F (-20°-95°C)
AMBIENT TEMPERATURE	-4°-149°F (-20°-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

300 SERIES, 3-WAY INTERNAL VOLUMES	1/16" Barb Body	3/32" Barb Body	1/8" Barb Body
UNACTUATED (COMMON & NO)	0.010in³	0.012in³	0.014in³
ACTUATED (COMMON & NC)	0.009in³	0.010in³	0.022in³

MEDIA COMPATIBILITY	APPLICATIONS & MARKETS
<ul style="list-style-type: none"> <li>Citric Acid</li> <li>Formaldehyde</li> <li>Biological Solutions</li> <li>Sodium Hypochlorite</li> <li>Dextrose/Sugars</li> <li>Dialysate</li> <li>Hydrogen Peroxide</li> <li>Acetic Acid</li> <li>Bleach/Lye</li> <li>Most aggressive medias</li> </ul>	<ul style="list-style-type: none"> <li>Kidney Dialysis</li> <li>Analytical Chemistry</li> <li>Diagnostic Systems</li> <li>Agent Detection</li> <li>Environmental Monitoring</li> <li>Food and Beverage</li> <li>Gaseous Flow Control</li> <li>Water Purification</li> <li>Clinical Diagnostics</li> </ul>

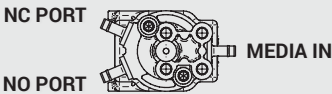
### DIMENSIONAL DRAWINGS

#### 300 3-PORT INLINE

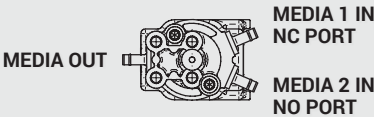


300 Series 3-port may function either as a diverter valve or selector valve at 10 PSI.

As a **DIVERTER VALVE** (up to 40 PSI inlet)



As a **SELECTOR VALVE** (up to 10 PSI either inlet)



[ ] = mm

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

Certified to the ISO 9001:2015 Standard.

