

iDP Valves

2-Port 350/351 Series Inert Diaphragm-Poppet Valve



Humphrey

Introducing Humphrey 350/351 series iDP valves. These 2-way inert solenoid valves are purposely engineered to control aggressive liquids and gases in the most harsh environments. The flexing diaphragm-poppet design isolates the solenoid from media penetration, while the inert body material ensures long life and sustained performance.

FEATURES

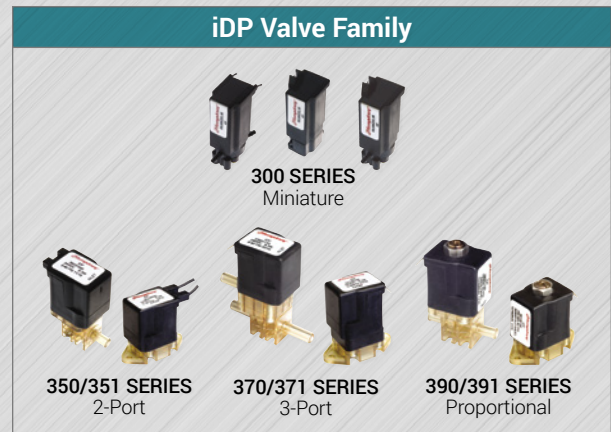
- Offering EPDM, Viton® or FFKM elastomers ensures multi-levels of chemical protection.
- Inert wetted materials provide broad chemical compatibility.
- Max pressure: 40 PSI (2.76 bar) standard
- Flow rates @ 40 PSI: 220 SLPM air or 5.3 SLPM water
- Integral diaphragm-poppet isolates flow path from solenoid.
- Continuous-duty encapsulated coil for operation in wet environments.
- Suitable for high fluid temperatures – up to 203°F (95°C)
- Robust design; Long service life
- 100% factory tested.
- Porting and mounting options offer design flexibility.



350
2-Port
Inline, Direct Piping



351
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 350/351 Series

350	3	1	5	00	35031500
MODEL 350: Inline 351: Manifold	BODY/SEALS 3: Radel®-EPDM 4: Radel®-Viton®GF 5: Radel®-FFKM	BODY STYLE (IN-OUT) 0: Manifold (No Barbs) 1: Barb-Barb 5: 8mm-8mm (5/16") (Quick Disconnect)	COIL TYPE & ORIENTATION (In Relation to OUT/P2 Port) 1: 1/4" Spade Terminal/Standard* 3: 1/4" Spade Terminal/Rotate 180° 5: Lead Wire/Standard* 7: Lead Wire/Rotate 180°	ORDER EXAMPLE	

* Manifold Options

iDP Valves

2-Port 350/351 Series

SPECIFICATIONS	IDP 350	IDP 351
TYPE OF OPERATION	Direct Solenoid, Media Separated	
FUNCTION	2-Way, Normally Closed	
MEDIA	Aggressive Liquids (Gases)	
WETTED PARTS: BODY AND SEALS (DIAPHRAGM-POPPET)	Radel® and FFKM, Viton®GF or EPDM	
PRESSURE RANGE – PSI (BAR)	Vacuum to 40 PSI (2.76) <i>Consult factory for higher pressure.</i>	
PIPING TYPE	Inline, Direct Piping	Manifold Mount
INTERNAL VOLUME: BARB BODY	Unactuated Under Poppet: 0.026in ³ Actuated: 0.062in ³	Unactuated Under Poppet: 0.004in ³ Actuated: 0.037in ³
WATER FLOW @ 40 PSI (TYP)	5.3 SLPM	
AIR FLOW @ 40 PSI (TYP)	220 SLPM	
FLUID TEMPERATURE	-20°C to 95°C	
AMBIENT TEMPERATURE	-20°C to 65°C	
CYCLES/MIN	300	
RESPONSE TIME @ 40 PSI (TYP)	16 msec	
PORT SIZE	5/16" Barb; 8mm Quick Disconnection	--
ELECTRICAL ENTRY	Spade Terminals or Lead Wires	
VOLTAGE	24VDC	
VOLTAGE TOLERANCE	±10%	
POWER CONSUMPTION (WATTS)	8.3	
WEIGHT	0.38 lbs	0.39 lbs

MEDIA COMPATIBILITY

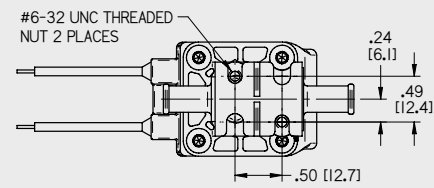
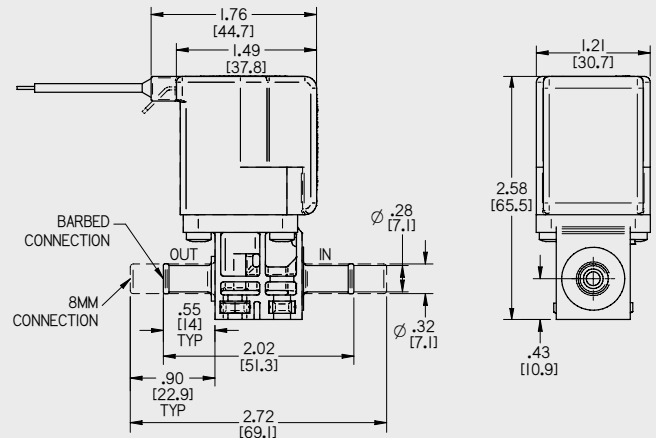
- Concentrated Nitric Acid
- Sodium Hydroxide
- Ethylene Diamine
- Ethylene Glycol
- Renaline®
- Acetic/Citric Acids
- Formaldehyde
- Biological Solutions
- Sodium Hypochlorite
- Dextrose/Sugars
- Dialysate
- Hydrogen Peroxide
- Bleach/Lye
- Most other media; consult factory for your compatibility.

APPLICATIONS & MARKETS

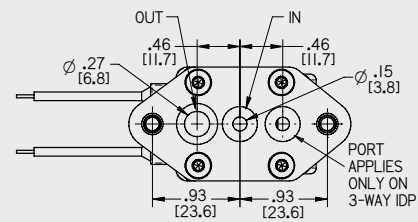
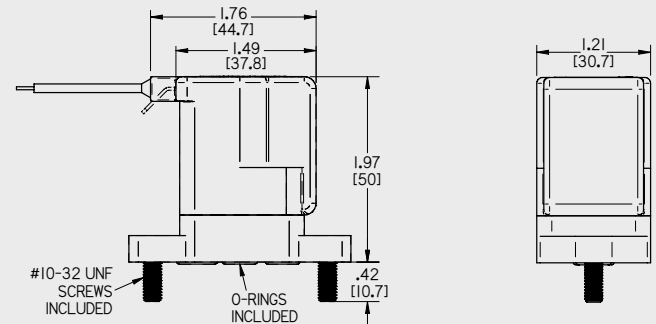
- Kidney Dialysis
- Analytical Chemistry
- Diagnostic Systems
- Agent Detection
- Environmental Monitoring
- Food and Beverage
- Gaseous Flow Control
- Water Purification
- Clinical Equipment Waste Systems

DIMENSIONAL DRAWINGS

350 SERIES



351 SERIES



FOOTPRINT

[] = mm

RECOMMENDED MATING ELECTRICAL CONNECTION

Spade Size: 1/4 inch Terminal
Lead Wires: Connect to 20 AWG x 24" length

Certified: ISO 9001:2015

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