

iDP Valves



Humphrey

101 Series

10mm, 2-Port Manifold iDP Valve

Introducing Miniature iDP. Just 10 millimeters in width, this diaphragm separated, 2-port aggressive media valve delivers precise control, reliable performance and low internal volume for micro-dosing applications in the medical technology and analytical fields. Applications include the control of fluids and chemical reagents used in microfluidics, DNA analysis, and blood, urine and tissue sampling. This simple, straightforward design delivers trouble-free performance for millions of cycles.

FEATURES

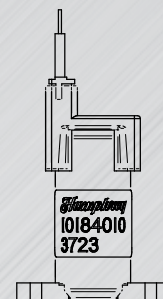
- Inert wetted materials provide broad compatibility:
 - Radel® body
 - FKM or EPDM elastomers
- Low internal volume:
 - 30 μ L actuated
 - 3.6 μ L unactuated (under seat)
- Fluid pressures to 30 PSI [2.06 bar]
- Flow rates to 550 mL/min [water]
- Compact subbase mount for easy system integration.
- Tight footprint allows for multiple valves in a small area.
- 12 or 24VDC lead wire plug-in electrical entry.
- Ideal for micro-dosing engineered solution applications.



10mm
2-Port
Normally Closed



Ø 0.705 [17.91]



Actual Size

iDP Valve Family



How to Order

101 Series || 10mm, 2-Port Manifold iDP Valve

101	8	4	0	3	0
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MODEL

SEALS

7: Radel®-FKM
8: Radel®-EPDM

BODY STYLE (IN-OUT)

4: 2-Port Manifold NC

PORT TYPES

0: Manifold

SOLENOID

1: 12VDC - PIN Connector
3: 24VDC - PIN Connector

ORDER EXAMPLE

10184030

iDP Valves

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SPECIFICATIONS	10MM
TYPE OF OPERATION	Direct Solenoid, Media Separated
FUNCTION	2-Way, Normally Closed
MEDIA	Aggressive Liquids (Gases)
PIPING TYPE	Manifold
WETTED PARTS	Radel® and FKM or EPDM
INLET PRESSURE – PSI (BAR)	0–30 PSI (2.07) <i>Consult factory for higher pressure or vacuum application.</i>
MAX BACK PRESSURE – PSI (BAR)	15 (1.03)
WATER FLOW @ 30 PSI	550 mL/min
AIR FLOW @ 30 PSI	20 SLPM
FLUID TEMPERATURE	EPDM: -4°-203°F (-20°-95°C) FKM: 32°-203°F (0-95°C)
AMBIENT TEMPERATURE	EPDM: -4°-149°F (-20°-65°C) FKM: 32°-149°F (0-65°C)
CYCLES/MIN @ 30 PSI	600
RESPONSE TIME @ 30 PSI	15 msec
ELECTRICAL ENTRY – PLUG-IN	ZHR-3 connector 26 AWG x 18" wire supplied.
VOLTAGES	12VDC, 24VDC
VOLTAGE TOLERANCE	±10%
POWER CONSUMPTION (WATTS)	1.5
WEIGHT (OZ)	0.4

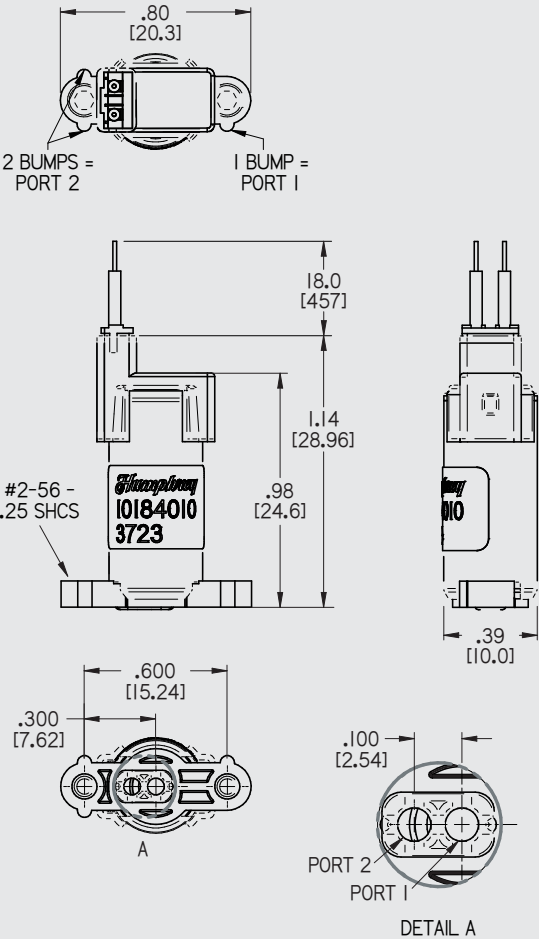
MEDIA COMPATIBILITY

- Concentrated Nitric Acid
- Sodium Hydroxide
- Ethylene Diamine
- Ethylene Glycol
- Renaline®
- Formaldehyde
- Biological Solutions
- Sodium Hypochlorite
- Dialysate
- Hydrogen Peroxide
- Bleach/Lye

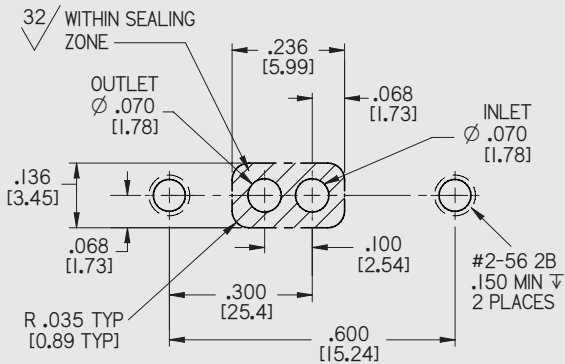
APPLICATIONS & MARKETS

- Micro-dosing
- DNA Processing
- Blood, Urine and Tissue Analyzers
- Microfluidics
- Ink Jet Printing

DIMENSIONAL DRAWINGS



MOUNTING PATTERN



MOUNTING SCREW (supplied)
#2-56 - .25 SHCS
Suggested torque: 1.5 ± 0.5 in-lbs

[] = mm

Certified to the ISO9001:2015 Standard.

