

# 2-Way Dry Operator

Direct Acting Valves  
1/4" NPT & 3/8" Barb



## General Description:

2-Way Dry Operator valves are specially designed for non-contaminating and corrosive applications. The valves assure absolute purity and inertness to corrosion when used with a broad range of fluids.

Dry Operator valves feature two basic construction innovations. The operator is physically isolated from the fluid by a diaphragm so only the seal and valve body come in contact with the fluid, and valve bodies of Noryl™ and Teflon™ provide the purity from contamination and resistance to corrosion many industries demand.

### Installation

Valves can be mounted in any position. The preferred orientation is with the coil vertical and upright.

### Compatible Fluids

Fluids compatible with diaphragm and body materials. See fluid compatibility chart in Technical Section of this catalog.

## Applications:

- Medical & Dental Equipment
- Chemical Dispensing
- Photo processing
- Instrumentation
- Hydroponics "nutrient dispensing"
- Food and beverage equipment



Specialty

## Mechanical Characteristics:

### Standard Materials of Construction

- Body — Noryl™, Teflon™ (PTFE), Stainless Steel (303)
- Seals — PTFE and FKM as listed
- Sleeve Tube — Stainless Steel (304)
- Plunger — Stainless Steel (430FR)
- Stop — Stainless Steel (430FR)
- Springs — Stainless Steel (18-8)
- Shading Ring — Copper

## Electrical Characteristics:

### Agency Approvals

- UL and CSA approvals are available on valves with applicable coil/enclosure combinations.

### Voltages

- AC — 24/60  
120/60–110/50  
240/60–220/50
- DC — 12, 24 & 120  
(consult factory for other voltages)

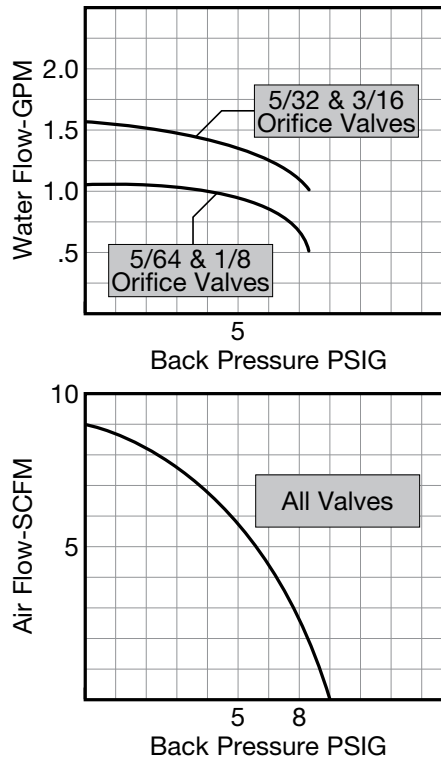
**Maximum Ambient Temperature**  
150°F

## Important Application Information On Back Pressure Data

Dry operator valves require consideration of back pressure since the back pressure acts on a large area of the diaphragm. Excessive back pressure can keep the valves open on de-energization. The back pressure a standard valve can operate against depends on the orifice size, pressure differential and whether the media is a gas or liquid.

The following two charts provide a method to verify that the valve selected can meet the application back pressure requirements.

For applications involving back pressure that cannot be handled by catalog valves, please consult Parker Fluid Control Division.



## Helpful Application Suggestions:

To keep the back pressure to a minimum, the downstream line should be as short as possible and be of the largest practical size. All restricting or flow controlling elements should be installed upstream.

## Use of Back Pressure Charts:

To use the charts, it is necessary to know the flow and back pressure.

1. First calculate the flow in GPM for liquids or SCFM for gases from the flow charts in the Technical Information Section.
2. The back pressure is the downstream pressure in the system. A catalog valve may be used if the intersection of flow and back pressure is below the curve for its orifice size.

## Direct Acting Noryl™\*\* Valves — Normally Closed, 3/8" BARB, FKM Seals

Port Size NPT	Orifice Size in.	Cv Factor	Operating Pressure Differential (PSI)			Max. Fluid Temp. °F	Pressure Vessel Number	Reference	
			Min.	Maximum				Coil	Valve
				AC Ratings	DC Ratings				
				10 Watt	10 Watt				
3/8" BARB	5/32	0.35	0	35	35	140	71214LT3QV00	7	D8
3/8" BARB	3/16	0.47	0	20	20	140	71214LT3SV00	7	D8

## Direct Acting Teflon™\*\*\* Valves — Normally Closed, 1/4" NPT, PTFE or FKM Seals

Port Size NPT	Orifice Size in.	Cv Factor	Operating Pressure Differential (PSI)			Max. Fluid Temp. °F	Pressure Vessel Number	Reference	
			Min.	Maximum				Coil	Valve
				AC Ratings	DC Ratings				
				10 Watt	10 Watt				
1/4" NPT	5/64	0.16	0	70	70	140	71214TN2KT00	7	D7
1/4" NPT	3/16	0.47	0	20	20	140	71214TN2SV00	7	D7
1/4" NPT	3/16	0.47	0	20	20	140	71214TN2ST00	7	D7

## Direct Acting Stainless Steel Valves — Normally Closed, 1/4" NPT, PTFE Seals

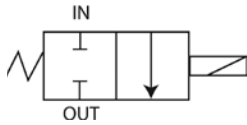
Port Size NPT	Orifice Size in.	Cv Factor	Operating Pressure Differential (PSI)			Max. Fluid Temp. °F	Pressure Vessel Number	Reference	
			Min.	Maximum				Coil	Valve
				AC Ratings	DC Ratings				
				10 Watt	10 Watt				
1/4" NPT	3/16	0.47	0	20	20	140	71214VN2ST00	7	D6

\*\*Noryl™ - G.E. Plastics (SABIC)

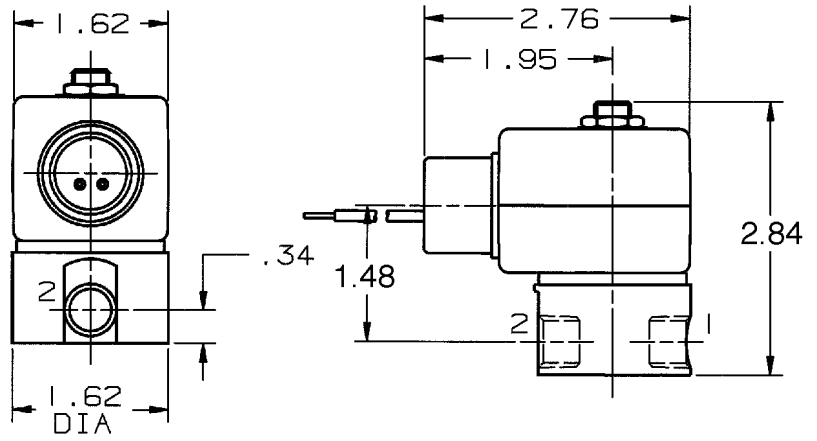
\*\*\*Teflon™ - E.I. Dupont



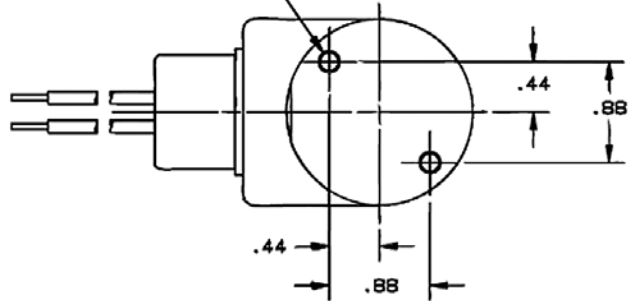
## Valve Reference D6



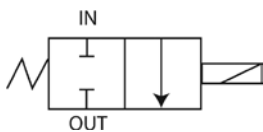
2-Way Normally Closed  
Port Identification: 1-OUT/2-IN



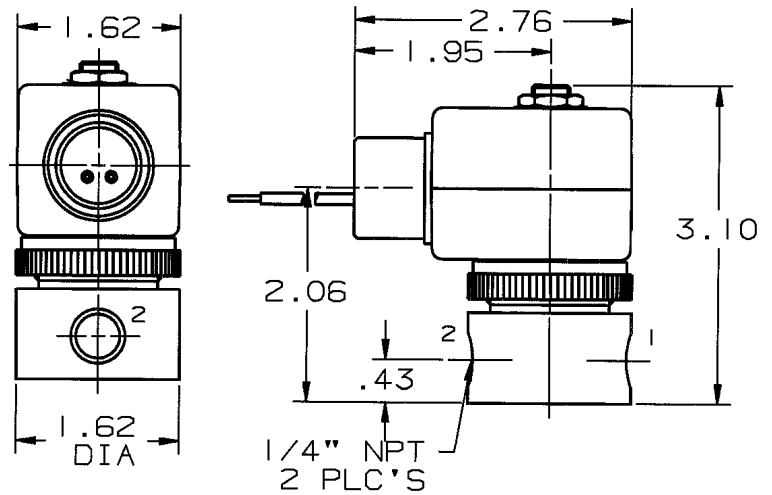
•10-32 NF TH'D  
x .25 DP - 2 PLC'S



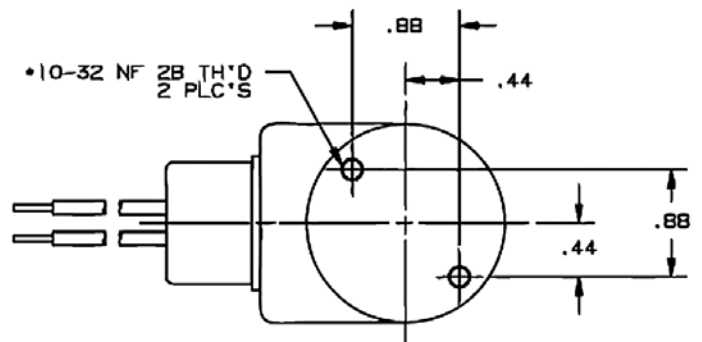
## Valve Reference D7



2-Way Normally Closed  
Port Identification: 1-OUT/2-IN

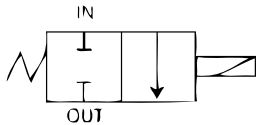


1/4" NPT  
2 PLC'S

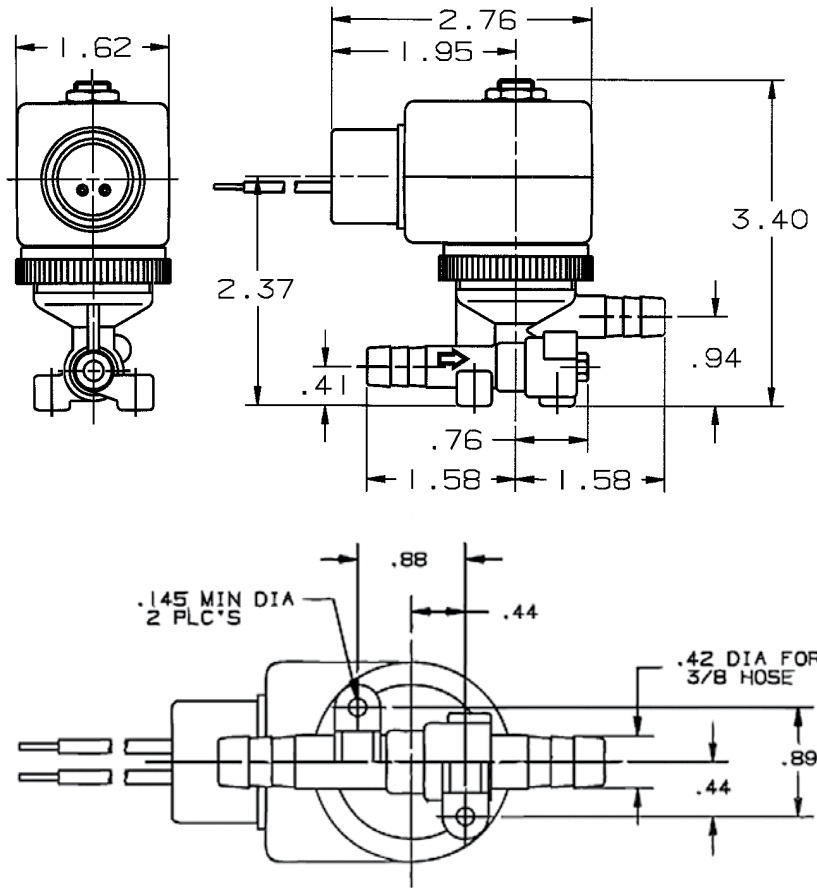


D15

# Valve Reference D8



Port Identification:  
Flow arrow on body indicates flow direction. Ports are not marked.



Specialty

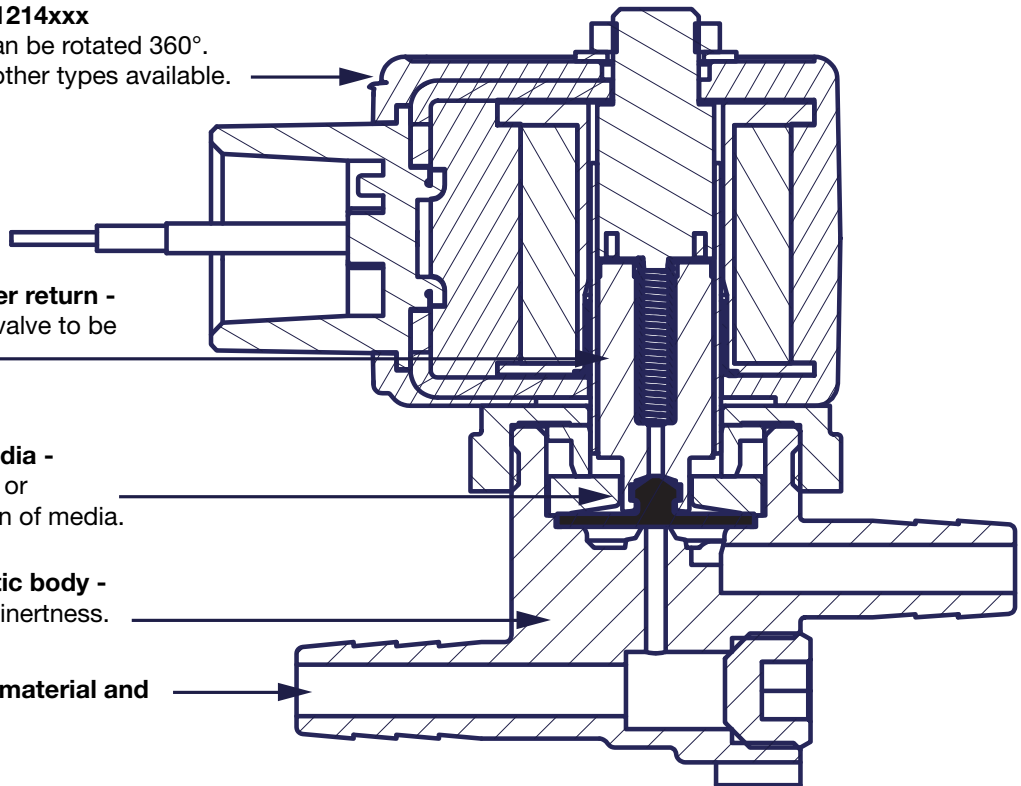
**Features of the 71214xxx**  
**Coil Housing** -- can be rotated 360°.  
Wide selection of other types available.

**Spring provides positive plunger return** - made of stainless steel, permits valve to be mounted in any position

**Operator is separated from media** - provides resistance to corrosion or eliminates possible contamination of media.

**Molded glass filled Noryl plastic body** - provides strength and chemical inertness. Teflon™ also available.

**Media is in contact with body material and synthetic diaphragm only.**



Teflon is a trademark of E. I. DuPont

