General Isolation Type

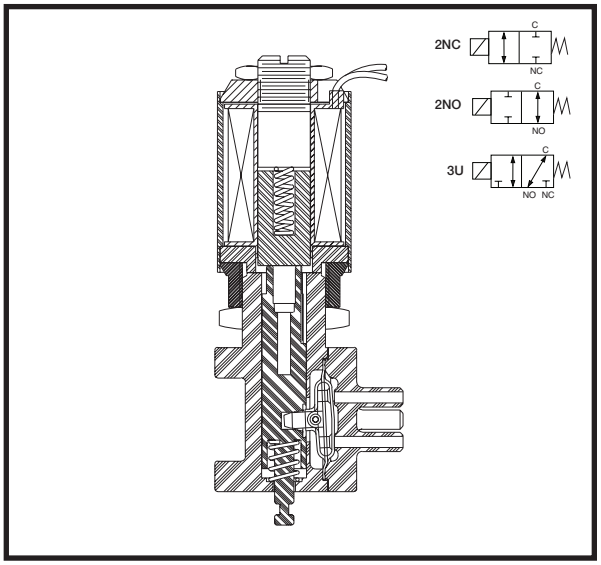
2 and 3-Way Rocker Isolation Valves

Threaded-Flat Bottom or Barbed Hose Bib Porting

ASCO SCIENTIFIC®

ASCO Scientific's patented Series 458 rocker isolation valves feature a unique rocker diaphragm mechanism that shields the internal components of the solenoid from the fluid. The design forms an easy to flush, low volume internal cavity.

- Suitable for corrosive media that would attack valves designed for general service duty
- Prevents contamination of fluid sample, due to excellent flushing characteristics
- Rocker design significantly reduces erratic flow caused by pumping action in poppet style valves
- Standard built-in manual operator for testing or troubleshooting
- An air operated version is also available. In this version an air cylinder replaces the solenoid as the valve actuator



Construction

Valve Parts in Contact with Fluids	
Flange	PSU or PEEK
Diaphragm	EPDM

Electrical

Standard Voltages	6, 12, 24 VDC +10%, -5% 115 VAC (with rectifier in lead wires)
Power Consumption	2.5 Watts
Duty Cycle Rating	Continuous
Coil Insulation	266˚F (130˚C)
Electrical Connection	26 gage lead wire

Valve

Response Time	~20 ms at rated voltage
Internal Volume **-2-Way** **-3-Way**	 51 µL 62 µL
Options	• Surface or panel mount • Barbed bib ports for 0.062" ID to 0.082" soft tubing • Threaded-flat bottom ports available with #1/4-28 UNF, #10-32 UNF, or M6 threads • Air Operated version (30 psig pilot pressure required)
Vacuum Rating	29" Hg

Alternative Constructions

Many alternative constructions are available and include a variety of voltages, electrical connectors, and materials of construction. ASCO Scientific can also custom design a valve for your specific application.

Contact your local ASCO sales office for more information.

Temperature Range:

Ambient & Media:

32˚F to 114˚F (0˚C to 45˚C) continuous duty

Approvals:

Meets applicable CE directives

Specifications

Ports	Orifice Size (ins.)	Cv Flow Factor	Flange Material	Mount	Maximum Pressure (psi)	Catalog Number	Watt Rating @ 20˚C	Weight (oz.)
2-WAY NORMALLY CLOSED (Closed when de-energized)								
Barbed Hose Bib	0.062	0.04	PSU	Surface	35	4581xxx11ES	2.5	2
Barbed Hose Bib	0.062	0.04	PSU	Panel	35	4581xxx11EP	2.5	2
#10-32 UNF FB	0.062	0.04	PEEK	Surface	35	4581xxx22ES	2.5	2
#10-32 UNF FB	0.062	0.04	PEEK	Panel	35	4581xxx22EP	2.5	2
1/4-28 UNF FB	0.062	0.04	PEEK	Surface	35	4581xxx32ES	2.5	2
1/4-28 UNF FB	0.062	0.04	PEEK	Panel	35	4581xxx32EP	2.5	2
M6 FB	0.062	0.04	PEEK	Surface	35	4581xxx42ES	2.5	2
M6 FB	0.062	0.04	PEEK	Panel	35	4581xxx42EP	2.5	2
2-WAY NORMALLY OPEN (Open when de-energized)								
Barbed Hose Bib	0.062	0.04	PSU	Surface	35	4582xxx11ES	2.5	2
Barbed Hose Bib	0.062	0.04	PSU	Panel	35	4582xxx11EP	2.5	2
#10-32 UNF FB	0.062	0.04	PEEK	Surface	35	4582xxx22ES	2.5	2
#10-32 UNF FB	0.062	0.04	PEEK	Panel	35	4582xxx22EP	2.5	2
1/4-28 UNF FB	0.062	0.04	PEEK	Surface	35	4582xxx32ES	2.5	2
1/4-28 UNF FB	0.062	0.04	PEEK	Panel	35	4582xxx32EP	2.5	2
M6 FB	0.062	0.04	PEEK	Surface	35	4582xxx42ES	2.5	2
M6 FB	0.062	0.04	PEEK	Panel	35	4582xxx42EP	2.5	2
3-WAY UNIVERSAL OPERATION (Pressure at any port)								
Barbed Hose Bib	0.062	0.04	PSU	Surface	35	4583xxx11ES	2.5	2
Barbed Hose Bib	0.062	0.04	PSU	Panel	35	4583xxx11EP	2.5	2
#10-32 UNF FB	0.062	0.04	PEEK	Surface	35	4583xxx22ES	2.5	2
#10-32 UNF FB	0.062	0.04	PEEK	Panel	35	4583xxx22EP	2.5	2
1/4-28 UNF FB	0.062	0.04	PEEK	Surface	35	4583xxx32ES	2.5	2
1/4-28 UNF FB	0.062	0.04	PEEK	Panel	35	4583xxx32EP	2.5	2
M6 FB	0.062	0.04	PEEK	Surface	35	4583xxx42ES	2.5	2
M6 FB	0.062	0.04	PEEK	Panel	35	4583xxx42EP	2.5	2

Notes
"xxx" Denotes place in catalog number for voltage or air operator designation

Catalog Number Description and Options

4581 | **xxx** | **11ES**

- **4581** — Base Catalog Number (1st Part)
- **xxx** — Voltage
  - 006 (DC)
  - 012 (DC)
  - 024 (DC)
  - 115 (AC)
  - AIR
- **11ES** — Base Catalog Number (2nd Part)

To Construct Catalog Number

- Select base catalog number
- Insert voltage into the 5th, 6th, and 7th digits denoted by "xxx"

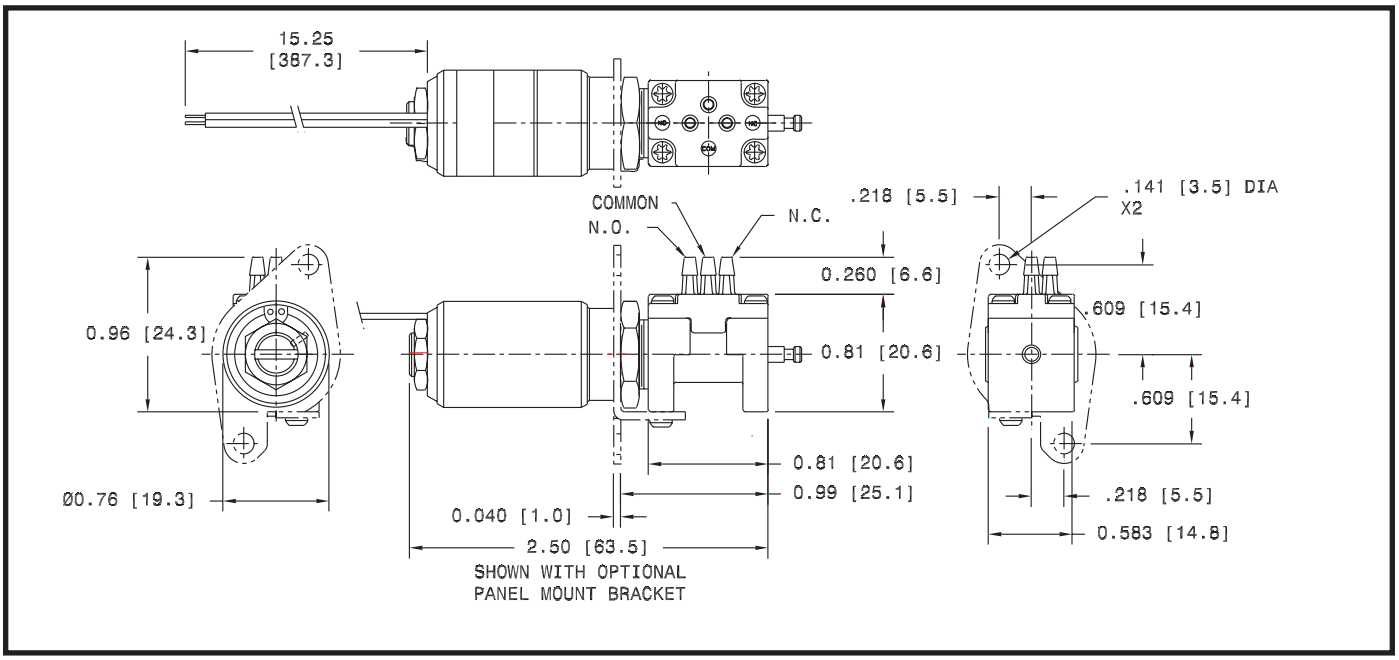
Examples

458103411ES = 2-way normally closed valve with bib ports, PSU flange, surface mounting and a 24 VDC coil

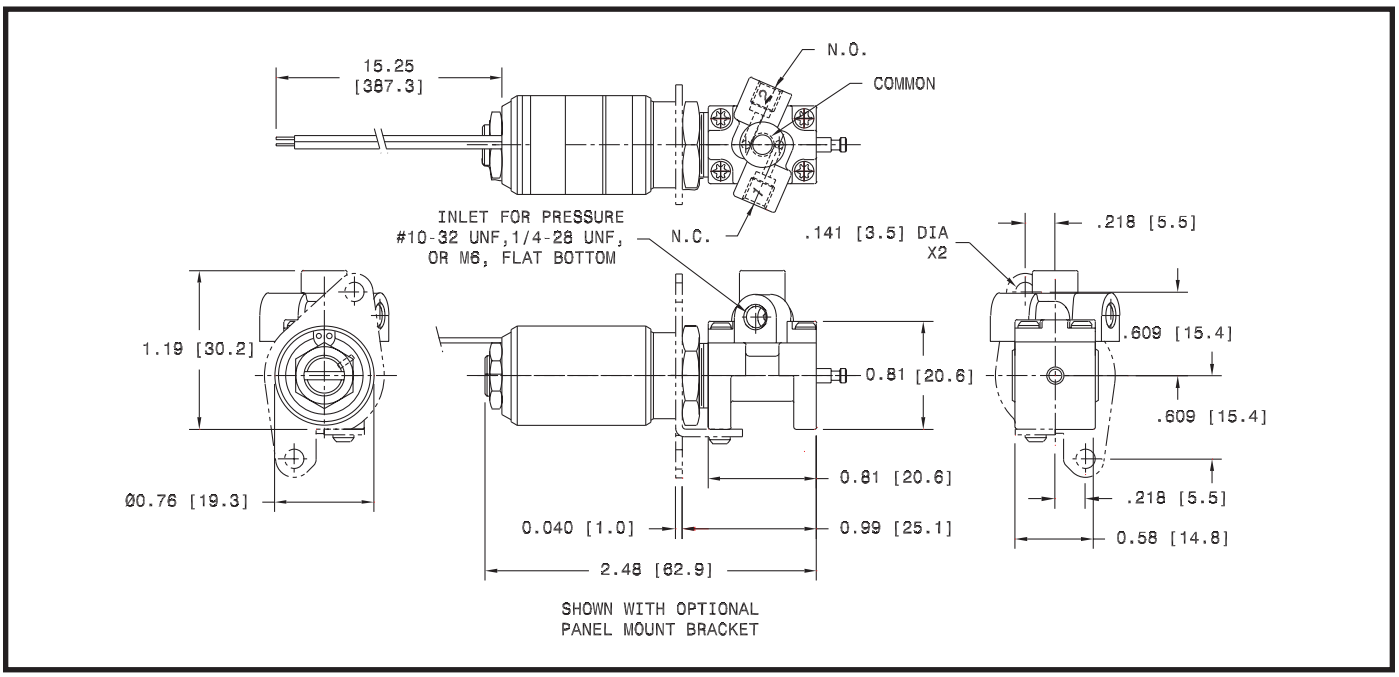
4582AIR22EP = 2-way normally open valve with #10-32 UNF flat bottom ports, PEEK flange, panel mounting and an air operator

458311542ES = 3-way valve with M6 flat bottom ports, PEEK flange, surface mounting and a 115 VAC coil with rectifier

Dimensions Solenoid Operated with Bib Flange: Inches [mm]



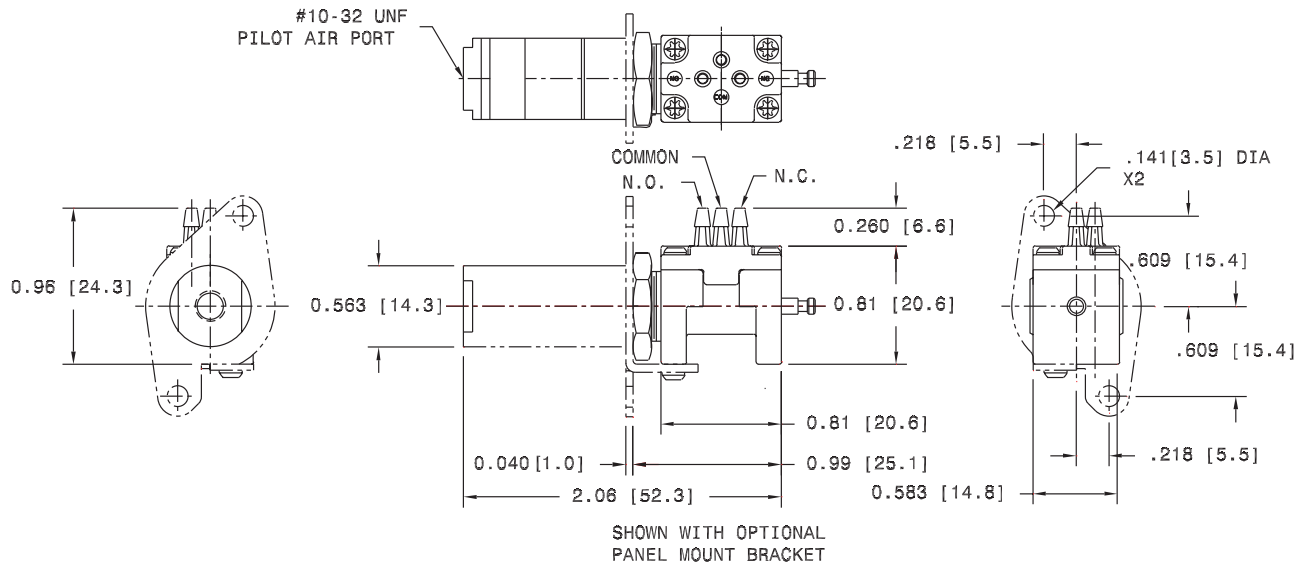
Solenoid Operated with Threaded Flange: Inches [mm]



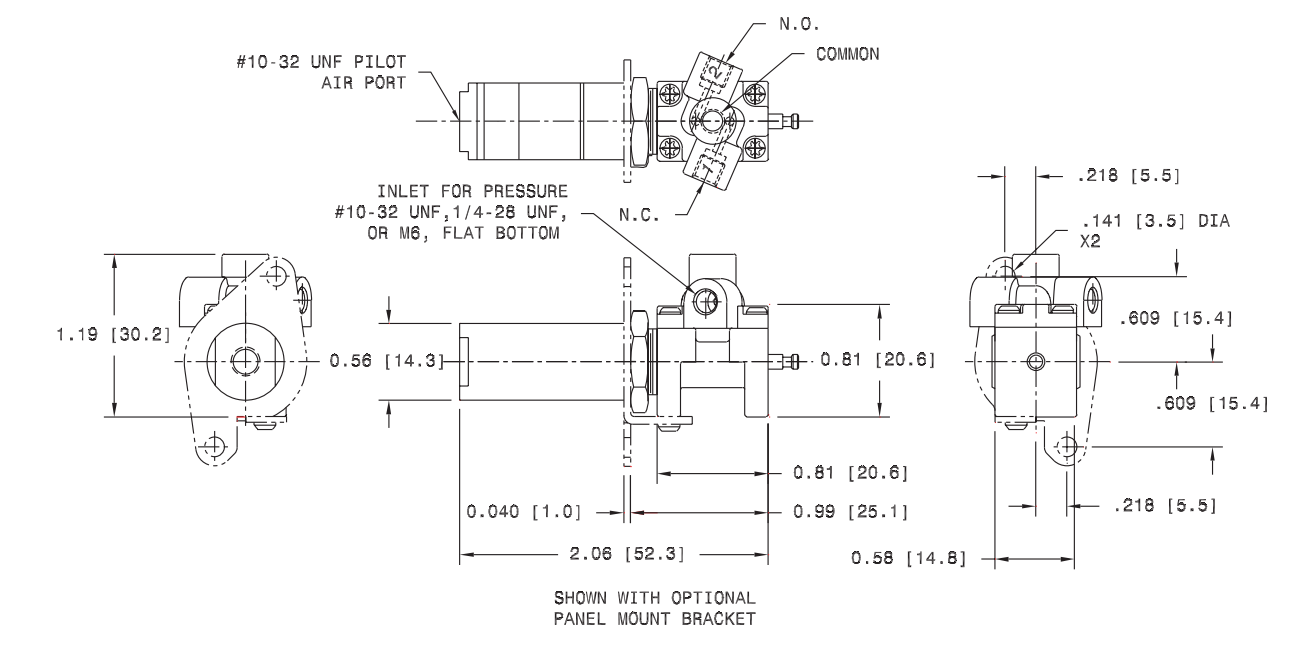
Notes

- 3-way versions shown, 2-way versions are the same except they do not include the middle ports
- Bracket for optional panel mount shown in dashed lines

Air Operated with Bib Flange: Inches [mm]



Air Operated with Threaded Flange: Inches [mm]



Notes

- 3-way versions shown, 2-way versions are the same except they do not include the middle ports
- Bracket for optional panel mount shown in dashed lines