

# AO32 SERIES

Pneumatically Operated, 3 Way 2 Position  
High Pressure Valves



Premier AO32 Series 3-way 2-position valves control the flow of media by connecting two of the three process ports.

Three functions in one valve:

- Normally Closed (NC):  
The valve blocks flow and vents downstream media in its default position. It allows flow when actuated.
- Normally Open (NO):  
The valve allows flow in its default position. It blocks flow and vents downstream media when actuated.
- Switching Operation:  
The valve flows through one or two outlets in its default position and switches to the other when actuated.

Premier AO32 valves are rated for pressures up to 10000 psig (689.5 bar) and Cv 0.80.

## FEATURES

- 3-way 2-position
- Cv 0.80
- 10000 PSIG (689.5 BAR) max operating pressure
- Configurations available for chemical resistance, oxygen service, and hydraulic applications
- Robust design for long cycle life
- Customize and optimize to meet your unique requirement (*contact Premier*)

**SOME APPLICATIONS WILL REQUIRE A CUSTOM SOLUTION.**  
CONTACT PREMIER INDUSTRIES TO REQUEST A MODIFICATION  
OR A CUSTOM DESIGN.

## SPECIFICATIONS

- **MAXIMUM OPERATING PRESSURE :**
  - 10000 psig / 689.5 bar
- **ACTUATION PRESSURE RANGE:**
  - 90-110 psig / 6.2-7.6 bar
- **FLOW (Cv):** 0.80

## PORTING

- **INLET & OUTLET OPTIONS:**
  - See selection chart
- **ACTUATION PORT:**
  - 1/8" FNPT
  - AS5202-04

## MATERIALS OF CONSTRUCTION

### PROCESS SIDE WETTED:

- **BODY/INSERT/STEM MATERIAL OPTIONS:**
  - 693 Eco Brass (GOX Service)
  - 316 Stainless Steel
- **VALVE SEAT OPTIONS:**
  - Vespel-SP-1
  - Vespel-SP-21 (GOX service)
- **O-RING SEAL OPTIONS:**
  - Buna-N
  - Viton-A
  - EPDM
  - FFKM (*contact Premier for pricing*)
  - Polyurethane
- **LUBRICANT:**
  - Krytox 240AC (*standard*)
  - Molykote 44 medium lubricant (*mod, recommended for water service*)

### ACTUATOR SIDE WETTED:

- **PISTON:**
  - 303 Stainless Steel
- **BONNET:**
  - 6061-T6 Aluminum, Clear Anodize

### NON-WETTED:

- **SPRING:** Music Wire
- **BACKUP RINGS:** PTFE
- **OTHER:** Stainless Steel

## OPTIONS

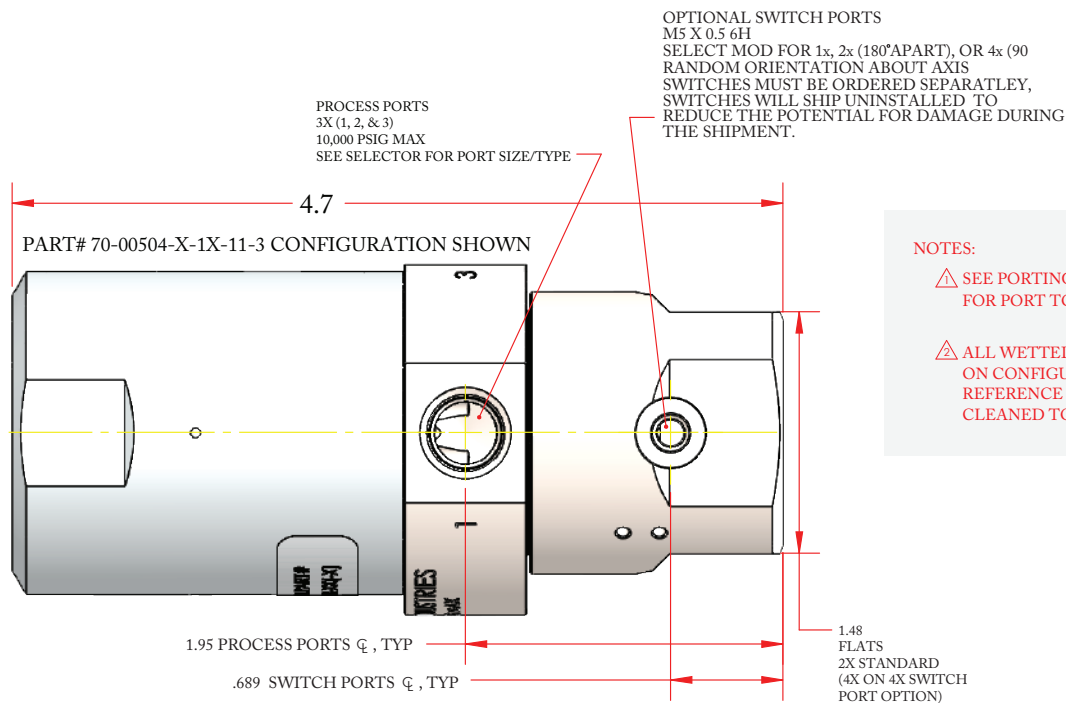
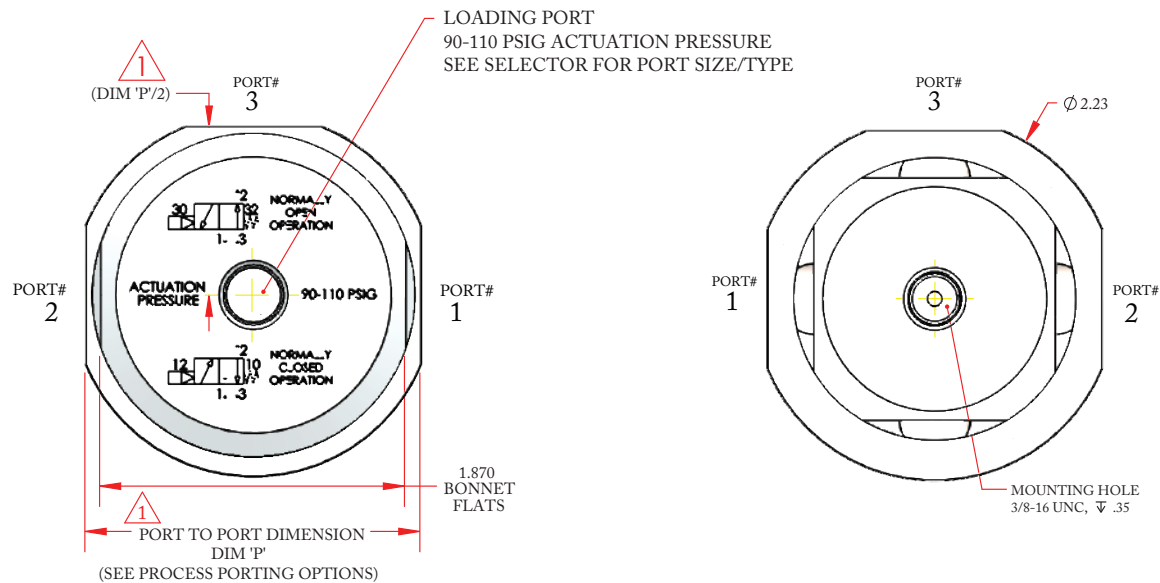
- Private label
- Solenoid valve (*1/8" FNPT actuation port only*)
- Switch ports
- Indicator switch (P/N: 70-00434)

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*Krytox® is a registered trademark of The Chemours Company FC, LLC.*

**PART NUMBER: 70-00504**

70-00504-X-1X-11-3 CONFIGURATION SHOWN BELOW

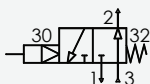


**NOTES:**

- ⚠ SEE PORTING OPTIONS ON SELECTOR FOR PORT TO PORT DIMENSION
- ⚠ ALL WETTED COMPONENTS ON CONFIGURATIONS THAT REFERENCE 'GOX' (AND THIS NOTE) CLEANED TO WI615 PER CGA G4.1.

**PART NUMBER: 70-00504**

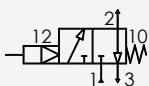
## NORMALLY OPEN OPERATION



### SUPPLY PORT 3

DOWNSTREAM PROCESS, PORT 2  
EXHAUST, PORT 1

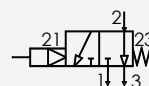
## NORMALLY CLOSED OPERATION



### SUPPLY PORT 1

DOWNSTREAM PROCESS PORT 2  
EXHAUST PORT 3

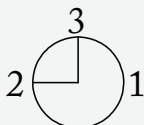
## SWITCHING OPERATION



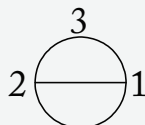
### SUPPLY PORT 2

NOT ACTUATED OUTLET PORT 3  
ACTUATED OUTLET PORT 1

**NOT  
ACTUATED**



**PORTING CONNECTIONS  
REFERENCE**



**ACTUATED**

| PART #   | - | 1 | - | 2 | 3 | - | 4 | 5 | - | MODS |
|----------|---|---|---|---|---|---|---|---|---|------|
| 70-00504 | - |   | - |   |   | - |   |   | - |      |

| 1 | SEAT MATERIAL                                                                                                 |
|---|---------------------------------------------------------------------------------------------------------------|
| 1 | VESPEL SP-1                                                                                                   |
| 2 | VESPEL SP-21 (GOX SERVICE)   |
| 2 | BODY/INSERT/STEM MATERIAL                                                                                     |
| 1 | 316 STAINLESS STEEL                                                                                           |
| 2 | 693 ECO BRASS (GOX SERVICE)  |
| 3 | O-RING MATERIAL                                                                                               |
| 1 | BUNA-N                                                                                                        |
| 2 | VITON-A®                                                                                                      |
| 3 | EPDM                                                                                                          |
| 4 | FFKM<br>(CONTACT PREMIER FOR PRICING)                                                                         |
| 5 | POLYURETHANE                                                                                                  |

| 4 | PROCESS PORTS                                                  |
|---|----------------------------------------------------------------|
| 1 | SAE AS5202-04 (ALL PORTS) ('P' = 2.06")                        |
| 2 | 1/4" (F)NPT (ALL PORTS) ('P' = 2.23")                          |
| 3 | 1/4" MED. PRESSURE (ALL PORTS) ('P' = 2.06")<br><b>Cv 0.20</b> |
| 4 | 1/4" HIGH PRESSURE (ALL PORTS) ('P' = 2.06")<br><b>Cv 0.15</b> |
| 5 | ACTUATION PORT                                                 |
| 1 | 1/8 (F)NPT                                                     |
| 2 | AS5202-04                                                      |

| SPECIAL MODS** |                                                       |
|----------------|-------------------------------------------------------|
| BLANK          | NONE                                                  |
| 1              | 1X INDICATOR SWITCH PORT                              |
| 2              | 2X INDICATOR SWITCH PORTS                             |
| 3              | 4X INDICATOR SWITCH PORTS                             |
| 4              | SOLENOID VALVE ACTUATOR<br>(1/8" ACTUATION PORT ONLY) |
| 5              | MOLYKOTE 44 MEDIUM LUBRICANT                          |
| SPX5           | SPX00006876 CLASS 5 HANDLING                          |

**NOTES:**

 SEE PORTING OPTIONS ON SELECTOR FOR PORT TO PORT DIMENSION

 ALL WETTED COMPONENTS ON CONFIGURATIONS THAT REFERENCE 'GOX' (AND THIS NOTE) CLEANED TO W1615 PER CGA G4.1.

CONSULT PREMIER INDUSTRIES IF ORDERING SPECIAL MODS, OR IF UNLISTED CONFIGURATIONS ARE REQUIRED.

ADD ALL MODS TO END OF PART# (EX. 70-00504-1-22-12-1)

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