

# AO SERIES

Air Operated, Normally Open/Closed  
Valves



Premier AO Series, Air Operated Valves are designed for both normally open and normally closed use with gas or hydraulic media. Offered in a wide range of process pressures, Cv ratings, and materials, Premier AO valves were designed with the flexibility to integrate seamlessly into your application.

## FEATURES

- High operating pressures
- High flow capacities
- Optional solenoid valve actuator
- 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 INLET PRESSURE :**
  - P/N: 70-00347: 10000 psig / 689.5 bar
  - P/N: 70-00379: 10000 psig / 689.5 bar
  - P/N: 70-00312: 20000 psig / 1378.95 bar
- **ACTUATION PRESSURE RANGE:**
  - P/N: 70-00347: 100-150 psig / 6.89-10.3 bar
  - P/N: 70-00379: 100-150 psig / 6.89-10.3 bar
  - P/N: 70-00312: 115-150 psig / 7.93-10.3 bar
- **FLOW (Cv):**
  - P/N: 70-00347: 0.80
  - P/N: 70-00379: 2.0
  - P/N: 70-00312: 0.20

*(with 1/4" medium pressure ports)*

## MATERIALS OF CONSTRUCTION

### PROCESS SIDE WETTED:

- **BODY/INSERT/STEM MATERIAL OPTIONS:**
  - See regulator selection charts
- **MAIN VALVE SEAT:**
  - P/N: 70-00347 & 70-00379: Vespel-SP-1®
  - P/N: 70-00312: Vespel-SCP5000®
- **O-RING SEAL OPTIONS:**
  - See regulator selection charts
- **LUBRICANT:**
  - Krytox 240AC *(standard)*
  - Molykote 44 medium lubricant *(special mod)*

### ACTUATOR SIDE WETTED:

- **PISTON PLUG:**
  - 303 Stainless Steel
- **BONNET:**
  - P/N: 70-00347 & 70-00379: 303 Stainless Steel
  - P/N: 70-00312: 17-4 H900 Stainless Steel

### NON-WETTED:

- **BACK-UP RINGS:**
  - P/N: 70-00347 & 70-00379:
    - PTFE
    - PEEK®
  - P/N: 70-00312:
    - PEEK®

## PORTING

- **INLET & OUTLET OPTIONS:**
  - See regulator selection chart
- **ACTUATION PORT:**
  - 1/8" (F)NPT

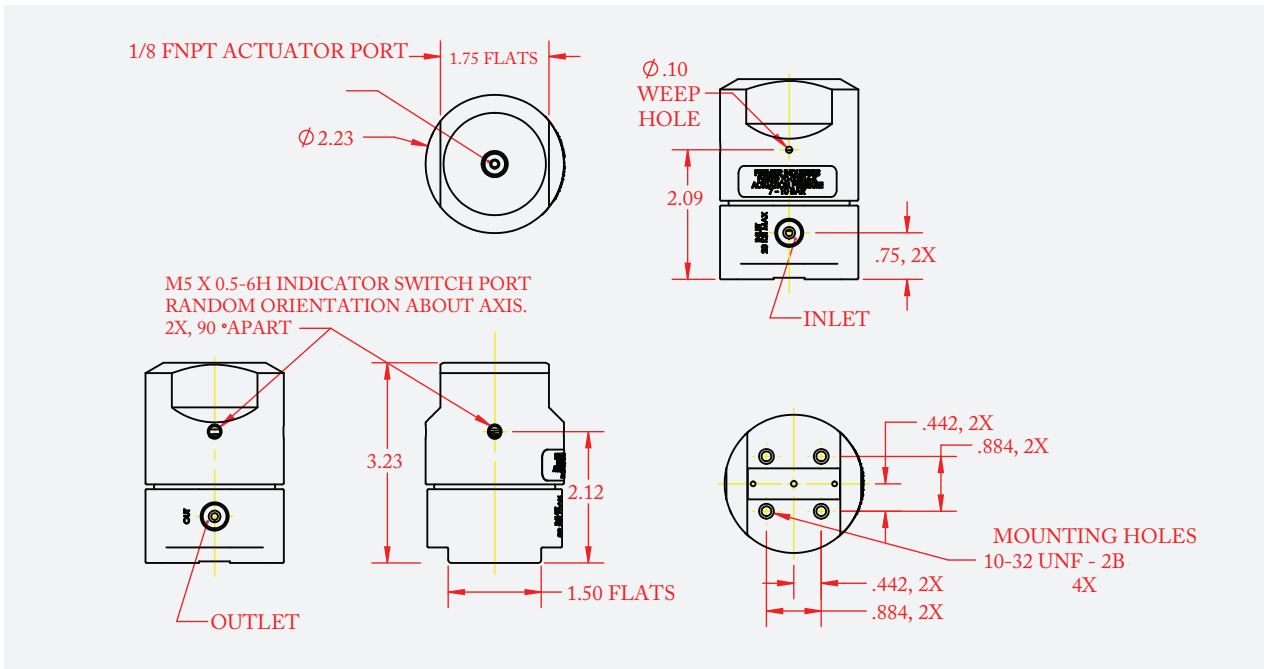
## OPTIONS

- Private label
- Solenoid valve
- Indicator switch
- Gauges

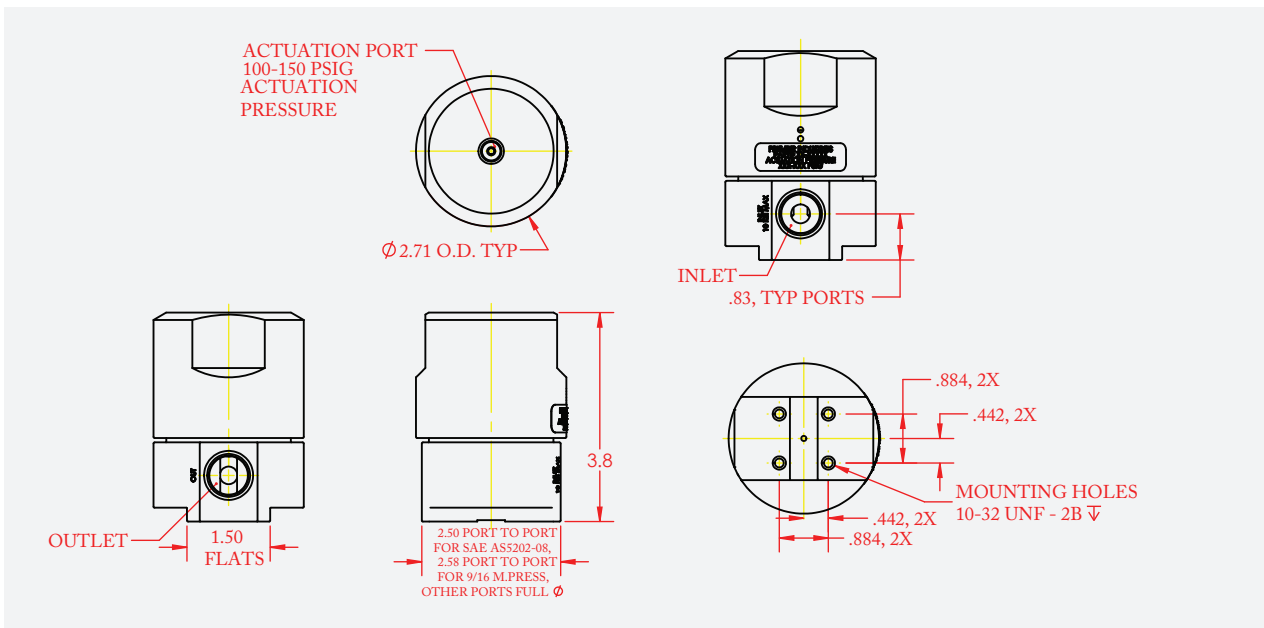
Vespel® is a registered trademark of E.I. duPont de Nemours and Company.

PEEK® is a registered trademark of Victrex PLC

**PART NUMBER: 70-00312 and 70-00347-X-XX-21**



**PART NUMBER: 70-00379-X-XX-31**



# AO SERIES

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PART #	-	1	-	2	3	-	4	5	-	MODS (OPTIONAL)
70-00347	-		-			-			-	

**Cv 0.8, 10000 PSIG MAX INLET**

1	TYPE
1	Normally Closed
2	Normally Open
2	BODY/INSERT MATERIAL
1	303 Stainless Steel
2	316 Stainless Steel
3	O-RING MATERIAL
1	Buna-n
2	Viton®
3	EPDM
4	Kalrez® <i>Contact factory for pricing</i>
5	Polyurethane

4	PROCESS PORTS (& GAGE)
1	1/4 FNPT
2	3/8 FNPT
3	SAE AS5202-04
4	1/4 MEDIUM PRESSURE <i>(Medium pressure porting is only available with Cv 0.2)</i>
5	ACTUATION PORT
1	1/8 FNPT

SPECIAL MODS**	
OMITTED	NONE
1	INDICATOR SWITCH
2	SOLENOID VALVE ACTUATOR
3	GAUGE PORTS
4	MOLYKOTE 44 MEDIUM LUBRICANT

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

**ADD ALL MODS TO END OF PART# (EX. 70-00347-1-12-41-13)**

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# AO SERIES

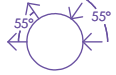
Air Operated, Normally Open/Closed  
Valves

PART #	-	1	-	2	3	-	4	5	-	MODS
70-00379	-		-			-			-	

**Cv 2.0, 10000 PSIG MAX INLET**

1	TYPE
1	Normally Open
2	Normally Closed
2	BODY/INSERT/STEM MATERIAL
1	303 Stainless Steel & 17-4 Stainless Steel,
2	316 Stainless Steel
3	O-RING MATERIAL
1	Buna-n
2	Viton-A®
3	EPDM
4	Kalrez®

4	PROCESS PORTS
1	1/2 (F)NPT
2	3/8 (F)NPT
3	SAE AS5202-08
4	9/16 Medium pressure
5	ACTUATION PORT
1	1/8 (F)NPT

SPECIAL MODS**	
BLANK	None
1	Indicator switch***
2	Solenoid valve
3	Gauge ports 
4	Molykote 44 medium lubricant
5	Indicator switch installed***
<i>***See page 6 for indicator switch modifications*</i>	

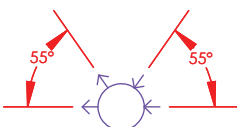
**\*\*CONSULT PREMIER INDUSTRIES IF ORDERING SPECIAL MODS, OR IF UNLISTED CONFIGURATIONS ARE REQUIRED. ADD ALL MODS TO END OF PART# (EX. 70-00379-1-12-41-1)**

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PART #	-	1	2	3	-	MODS (OPTIONAL)
70-00312	-				-	

**Cv 0.20, 20000 PSIG MAX INLET**

1	TYPE
1	Normally Closed
2	Normally Open
2	PORTING
1	1/4 Medium Pressure
3	O-RING SEALS
1	Buna-n
2	Viton®
3	EPDM
4	Neoprene
5	Kalrez® <i>Contact factory for pricing</i>

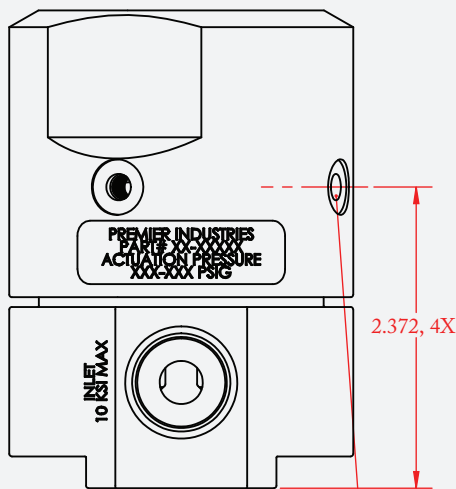
SPECIAL MODS**	
OMITTED	NONE
1	GAUGE PORTS 
2	SOLENOID VALVE
3	INDICATOR SWITCH
4	MOLYKOTE 44 MEDIUM LUBRICANT

**\*\*CONSULT PREMIER INDUSTRIES IF ORDERING SPECIAL MODS,  
OR IF UNLISTED CONFIGURATIONS ARE REQUIRED.  
ADD ALL MODS TO END OF PART# (EX. 70-00347-1-1-3-5-1-1-4)**

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**INDICATOR SWITCH PORT  
MOD REFERENCE:**

70-00379-X-XX-XX-1

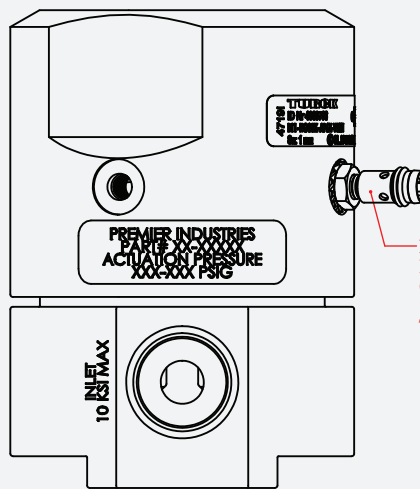


M5 X 05-6H INDICATOR  
SWITCH PORT. RANDOM  
ORIENTATION ABOUT  
AXIS. 4X, 90° APART.

**INDICATOR SWITCH INSTALLED  
MOD REFERENCE:**

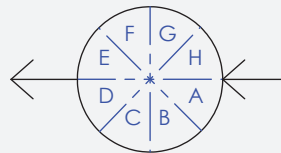
(THIS MOD ALSO INCLUDES SWITCH PORTING  
PER "-1" MOD TO THE LEFT.)

70-00379-X-XX-XX-5(-XX)



INDICATOR SWITCH: SST  
HOUSING, PLASTICS AND  
CERAMICS ACTIVE FACE.  
10...30 VDC: 100 mA  
TURK BI1-EG05K-AP6X-V1331

SWITCH POSITION SELECTOR:  
TOP VIEW (SEE VIEW 70-00379  
SELECTION CHART)



SWITCH POSITION SELECTOR:  
USE DIAGRAM TO THE LEFT TO SELECT A QUADRANT  
TO INSTALL THE SWITCH BY SPECIFYING 2 LETTERS AT  
THE END OF THE PART#. (APPLICABLE TO  
"INDICATOR SWITCH INSTALLED" MOD ONLY.)

70-00379-X-XX-XX-5-XX

-- 2 LETTER  
CODE

**EXAMPLE:**

70-00379-X-XX-XX-5-DE  
(THIS WOULD SPECIFY THE SWITCH TO BE INSTALLED  
NEAR THE VALVE'S OUTLET PORT)