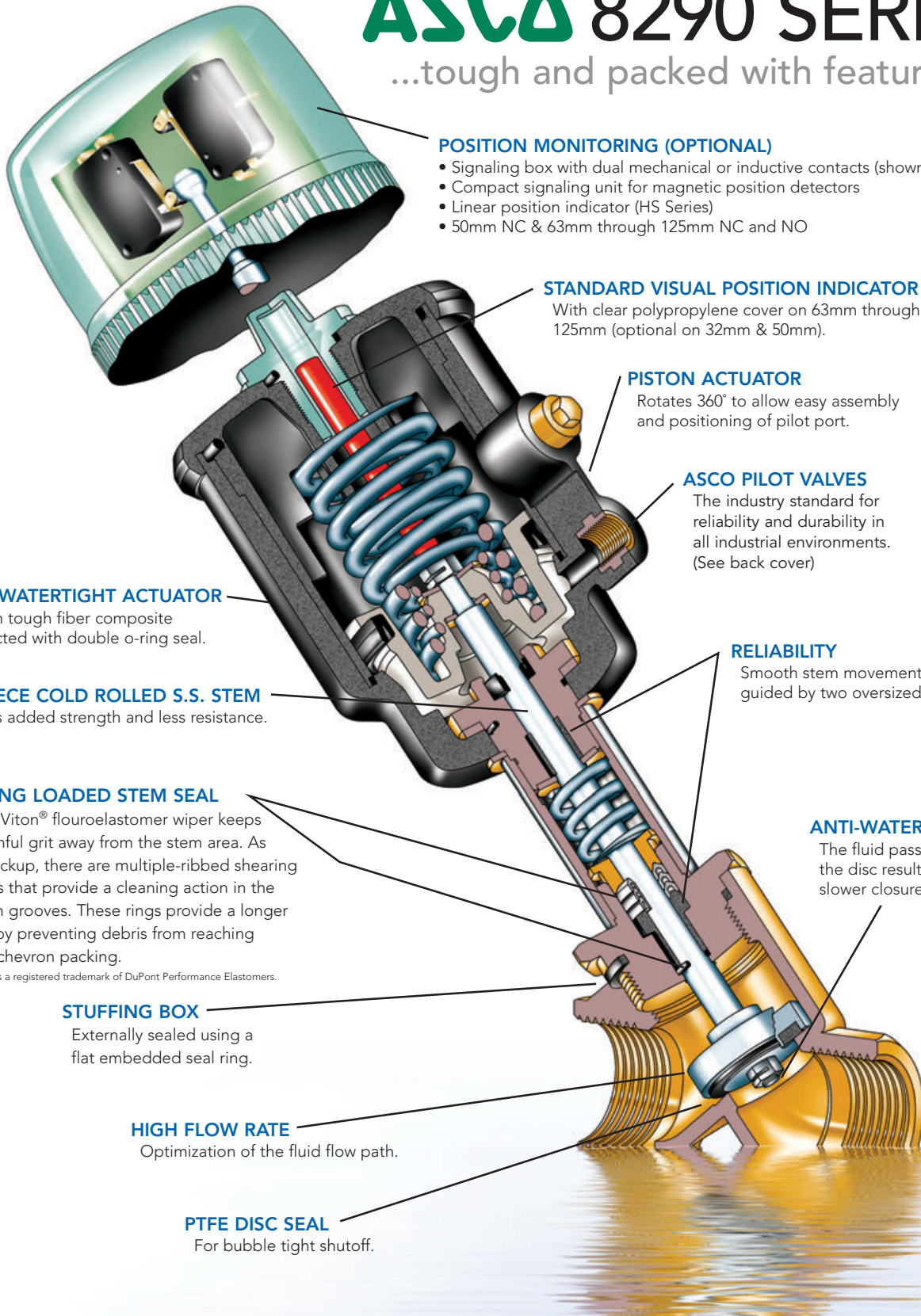


# ASCO® 8290 SERIES

...tough and packed with features



**POSITION MONITORING (OPTIONAL)**

- Signaling box with dual mechanical or inductive contacts (shown)
- Compact signaling unit for magnetic position detectors
- Linear position indicator (HS Series)
- 50mm NC & 63mm through 125mm NC and NO

**STANDARD VISUAL POSITION INDICATOR**

With clear polypropylene cover on 63mm through 125mm (optional on 32mm & 50mm).

**PISTON ACTUATOR**

Rotates 360° to allow easy assembly and positioning of pilot port.

**ASCO PILOT VALVES**

The industry standard for reliability and durability in all industrial environments. (See back cover)

**RUGGED WATERTIGHT ACTUATOR**

Made from tough fiber composite and protected with double o-ring seal.

**ONE PIECE COLD ROLLED S.S. STEM**

Provides added strength and less resistance.

**SPRING LOADED STEM SEAL**

The Viton® fluoroelastomer wiper keeps harmful grit away from the stem area. As a backup, there are multiple-ribbed shearing rings that provide a cleaning action in the stem grooves. These rings provide a longer life by preventing debris from reaching the chevron packing.

Viton is a registered trademark of DuPont Performance Elastomers.

**STUFFING BOX**

Externally sealed using a flat embedded seal ring.

**HIGH FLOW RATE**

Optimization of the fluid flow path.

**PTFE DISC SEAL**

For bubble tight shut-off.

**RELIABILITY**

Smooth stem movements guided by two oversized bearings.

**ANTI-WATER HAMMER**

The fluid passes under the disc resulting in slower closure.



**2/2**  
**SERIES**  
**8290**

Air or Water Pilot Operated  
**Angle Body Multi-Purpose Valves**  
Bronze or 316L Stainless Steel Bodies  
3/8" to 2 1/2" NPT

The 8290 Series consists of 2-way direct acting valves available in normally closed or normally open constructions. Built for demanding applications, these valves come in a straight-through body design made of bronze or stainless steel. There are many optional features including visual/electrical position indicator or a stroke limiter. The 8290 Series is suitable for the following applications:

- General Service (air, inert gas, water, oil, light slurries)
- Steam and Hot Water

### Construction

Part	Valve Parts in Contact with Fluids		
	32mm	50mm - 125mm	50mm - 125mm ①
Body	316L Stainless Steel	Bronze	316L Stainless Steel
Stem	316L Stainless Steel	431 Stainless Steel	431 Stainless Steel
Stuffing Box	316L Stainless Steel	Brass	303 Stainless Steel
Stuffing Box Seal	PTFE	PTFE Chevron	PTFE Chevron
Wiper Seal	FKM	FKM	FKM
Disc	316L Stainless Steel	Brass	304L Stainless Steel
Disc Seal	PTFE	PTFE	PTFE
Screw	316L Stainless Steel	-	-

① For all optional AISI 316L Stainless Steel constructions, contact ASCO.

### Specifications

**Ambient Temperature Range:** 15°F to 140°F (32°F to 122°F for proportional)

**Pilot Fluid Temperature Range:** 15°F to 140°F

**Maximum Viscosity:** 2,700 SSU

*For higher viscosity applications, please consult ASCO.*

### Alternate Valve Constructions

- Oxygen service, add suffix "N".
- Medium vacuum service up to  $7 \times 10^{-3}$  Torr, add suffix "VM".
- Visual Position Indicator for normally closed valve with 32mm or 50mm operator, add suffix "VI" (note: position indicator standard on 63mm through 125mm operators).
- NET-INOX treatment (stainless steel valve body pickled in nitric/hydrofluoric acid bath), add suffix "NI".
- All 316L stainless steel versions (available on request).

See inside back cover for the following constructions:

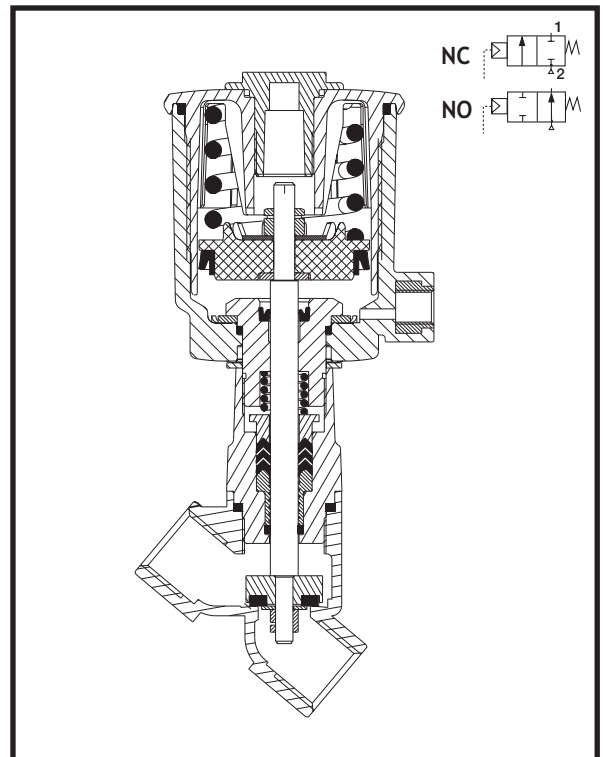
Compact Positioner for proportional control

Compact Signaling Unit

Signaling Box

Linear Position Indicator

Stroke Limiter





**2/2**  
**SERIES**  
**8290**

Air or Water Pilot Operated  
**Angle Body Multi-Purpose Valves**  
Bronze or 316L Stainless Steel Bodies  
3/8" to 2 1/2" NPT

## Specifications

Pipe Size (ins.)	Orifice Dia. (ins.)	Cv Flow		Operating Pressure Differential (psi)			Max. Fluid Temp. °F	Bronze	Stainless Steel ①	Air or Water Pilot Pressure (psi)		Approx. Shipping Weight (lbs.)
		On-Off	Prop.	Min.	Max.					Min.	Max.	
32 mm Operator												
<b>Normally Closed - Entry Under the Disc ③</b>												
3/8	3/8	2.3	-	0	240	150	366	-	8290A791	60	150	1.3
1/2	1/2	4.1	-	0	180	150	366	-	8290A792	60	150	1.4
3/4	3/4	7.6	-	0	90	90	366	-	8290A793	60	150	1.6
<b>Normally Open - Entry Under the Disc</b>												
3/8	3/8	2.3	-	0	240	150	366	-	8290A794	I ②	150	1.3
1/2	1/2	4.1	-	0	240	150	366	-	8290A795	I ②	150	1.4
3/4	3/4	7.6	-	0	240	150	366	-	8290A796	I ②	150	1.6
<b>Normally Closed - Entry Above the Disc for Rapid Cycling Steam Applications</b>												
3/8	3/8	2.3	-	0	-	150	366	-	8290A797	II ②	150	1.3
1/2	1/2	4.1	-	0	-	150	366	-	8290A798	II ②	150	1.4
3/4	3/4	7.6	-	0	-	150	366	-	8290A799	II ②	150	1.6
50 mm Operator												
<b>Normally Closed - Entry Under the Disc ③</b>												
1/2	1/2	5.7	5.3	0	240	150	366	8290A384	8290A393	60	150	2.7
3/4	3/4	11	8.3	0	150	150	366	8290A385	8290A394	60	150	2.9
1	1	15	-	0	90	90	366	8290A386	8290A395	60	150	3.7
<b>Normally Open - Entry Under the Disc</b>												
1/2	1/2	5.7	-	0	240	150	366	8290A387	8290A396	III ②	150	2.7
3/4	3/4	11	-	0	240	150	366	8290A388	8290A397	III ②	150	2.9
1	1	15	-	0	240	150	366	8290A389	8290A398	III ②	150	3.7
<b>Normally Closed - Entry Above the Disc for Rapid Cycling Steam Applications ③</b>												
1/2	1/2	5.7	-	0	-	150	366	8290A390	8290A399	IV ②	150	2.7
3/4	3/4	11	-	0	-	150	366	8290A391	8290A400	IV ②	150	2.9
1	1	15	-	0	-	150	366	8290A392	8290A401	IV ②	150	3.7
63 mm Operator												
<b>Normally Closed - Entry Under the Disc</b>												
1/2	1/2	5.7	-	0	240	150	366	8290B002	8290B045	38	150	3.6
3/4	3/4	11	8.3	0	240	150	366	8290B005	8290B048	60	150	3.9
1	1	19	17	0	150	150	366	8290B010	8290B053	60	150	4.7
1 1/4	1 1/4	32	24	0	90	90	366	8290A016	8290A059	60	150	6.0
1 1/2	1 1/2	52	33	0	60	60	366	8290A020	8290A063	60	150	8.0
2	2	68	46	0	40	40	366	8290A024	8290A067	60	150	10.0
<b>Normally Open - Entry Under the Disc</b>												
1/2	1/2	5.7	-	0	240	150	366	8290B026	8290B069	V ②	150	3.6
3/4	3/4	11	-	0	240	150	366	8290B027	8290B070	V ②	150	3.9
1	1	19	-	0	240	150	366	8290B028	8290B071	V ②	150	4.7
1 1/4	1 1/4	32	-	0	240	150	366	8290A030	8290A073	V ②	150	6.0
1 1/2	1 1/2	52	-	0	160	150	366	8290A032	8290A075	V ②	150	8.0
2	2	68	-	0	105	105	366	8290A034	8290A077	V ②	150	10.0
<b>Normally Closed - Entry Above the Disc for Rapid Cycling Steam Applications</b>												
1/2	1/2	5.7	-	0	-	150	366	8290B036	8290B079	VI ②	150	3.6
3/4	3/4	11	-	0	-	150	366	8290B037	8290B080	VI ②	150	3.9
1	1	19	-	0	-	150	366	8290B038	8290B081	VI ②	150	4.7
1 1/4	1 1/4	32	-	0	-	150	366	8290A039	8290A082	VI ②	150	6.0
1 1/2	1 1/2	52	-	0	-	150	366	8290A040	8290A083	VI ②	150	8.0
2	2	68	-	0	-	135	366	8290A042	8290A085	VI ②	150	10.0

① Available with NET-INOX treatment, add suffix "NI"; ② Minimum pilot pressure varies, see identified graph for appropriate values;

③ For Visual Position Indicator add suffix "VI".



## 2/2 SERIES 8290

Air or Water Pilot Operated  
**Angle Body Multi-Purpose Valves**  
Bronze or 316L Stainless Steel Bodies  
3/8" to 2 1/2" NPT

### Specifications

Pipe Size (ins.)	Orifice Dia. (ins.)	Cv Flow		Operating Pressure Differential (psi)			Max. Fluid Temp. °F	Bronze	Stainless Steel ①	Air or Water Pilot Pressure (psi) ②		Approx. Shipping Weight (lbs.)
		On-Off	Prop.	Min.	Max.					Min.	Max.	
<b>90 mm Operator</b>												
<b>Normally Closed - Entry Under the Disc</b>												
1	1	19	17	0	240	150	366	8290B011	8290B054	60	150	6.5
1 1/4	1 1/4	32	24	0	180	150	366	8290A017	8290A060	60	150	7.7
1 1/2	1 1/2	52	33	0	120	120	366	8290A021	8290A064	60	150	9.5
2	2	68	46	0	90	90	366	8290A025	8290A068	60	150	16.0
<b>Normally Open - Entry Under the Disc</b>												
1	1	19	-	0	240	150	366	8290B029	8290B072	VII ②	150	6.5
1 1/4	1 1/4	32	-	0	240	150	366	8290A031	8290A074	VII ②	150	7.7
1 1/2	1 1/2	52	-	0	240	150	366	8290A033	8290A076	VII ②	150	9.5
2	2	68	-	0	190	150	366	8290A035	8290A078	VII ②	150	16.0
<b>Normally Closed - Entry Above the Disc for Rapid Cycling Steam Applications</b>												
1 1/4	1 1/4	32	-	0	-	150	366	8290A136	8290A137	VIII ②	150	7.7
1 1/2	1 1/2	52	-	0	-	150	366	8290A041	8290A084	VIII ②	150	9.5
2	2	68	-	0	-	150	366	8290A043	8290A086	VIII ②	150	16.0
<b>125 mm Operator</b>												
<b>Normally Closed - Entry Under the Disc</b>												
1 1/4	1 1/4	34	34	0	240	150	366	8290A642	8290A646	60	150	13.5
1 1/2	1 1/2	56	56	0	240	150	366	8290A482	8290A495	60	150	15.0
2	2	77	77	0	150	150	366	8290A485	8290A498	60	150	17.0
2 1/2	2 1/2	130	86	0	90	90	366	8290A488	8290A501	60	150	21.5
<b>Normally Open - Entry Under the Disc</b>												
1 1/4	1 1/4	34	-	0	240	150	366	8290A643	8290A647	IX ②	150	13.5
1 1/2	1 1/2	56	-	0	240	150	366	8290A489	8290A502	IX ②	150	15.0
2	2	77	-	0	240	150	366	8290A490	8290A503	IX ②	150	17.0
2 1/2	2 1/2	130	-	0	240	150	366	8290A492	8290A505	IX ②	150	21.5

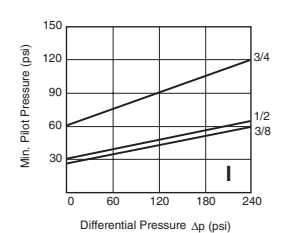
① Available with NET-INOX treatment, add suffix "NI"; ② Minimum pilot pressure varies, see identified graph for appropriate values.

### Dimensions: inches

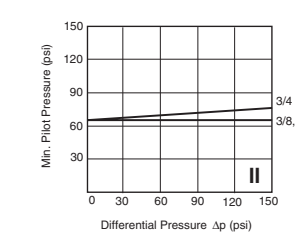
32 mm Operator						
	ØA	B	C	D	E	ØF
ins.	3/8	3.62	3.66	3.21	2.17	0.93
ins.	1/2	3.90	3.82	3.29	2.56	1.10
ins.	3/4	4.21	4.11	3.46	2.95	1.26

#### 32 mm Operator Graphs for Steam and Fluids

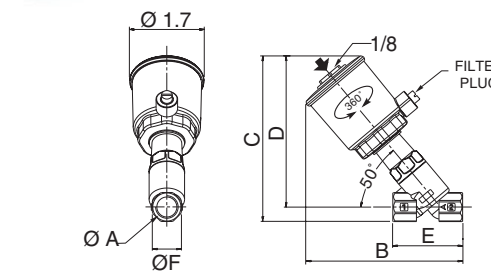
**Normally Open Valve - Entry Under Disc**



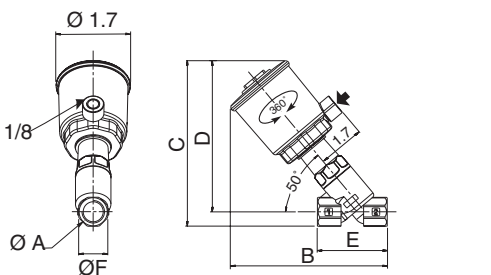
**Normally Closed Valve - Entry Above Disc**



**Normally Open**



**Normally Closed**





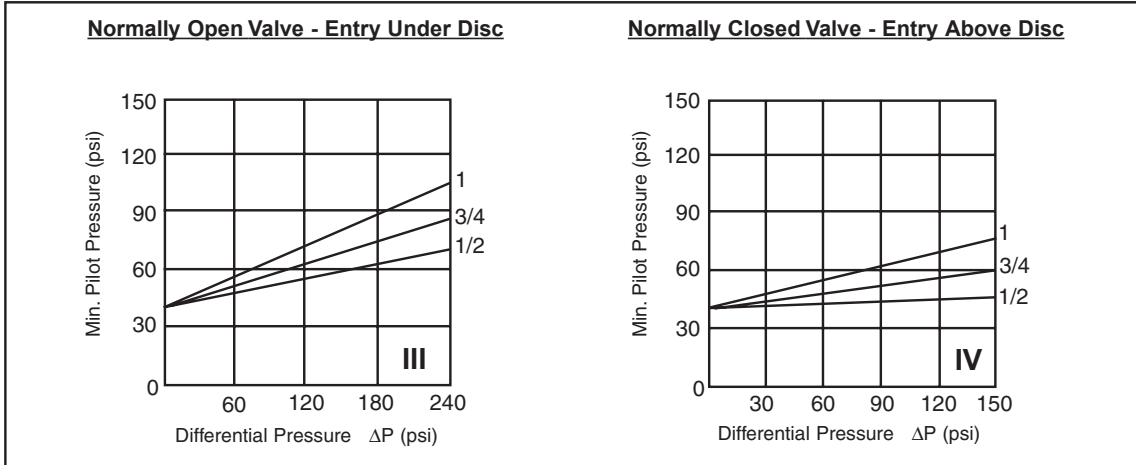


2/2  
SERIES  
8290

Air or Water Pilot Operated  
**Angle Body Multi-Purpose Valves**  
Bronze or 316L Stainless Steel Bodies  
3/8" to 2 1/2" NPT

Dimensions: inches

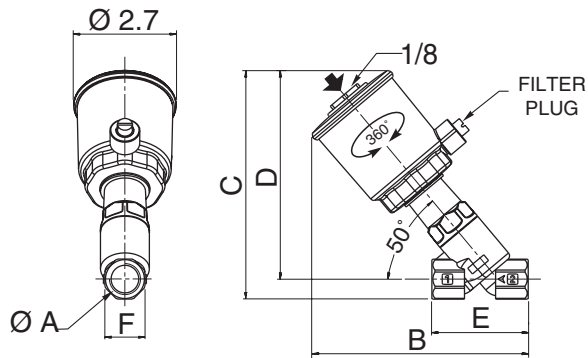
50 mm Operator Graphs for Steam and Fluids



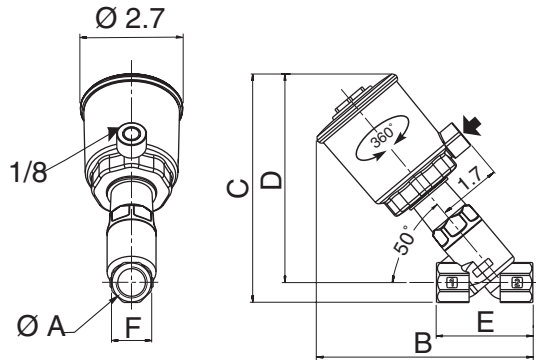
50 mm Operator						
	ØA	B	C	D	E	F
ins.	1/2	5.59	6.08	5.55	2.56	1.06
ins.	3/4	5.92	6.26	5.63	2.95	1.26
ins.	1	6.10	6.50	5.71	3.54	1.61



Normally Open



Normally Closed



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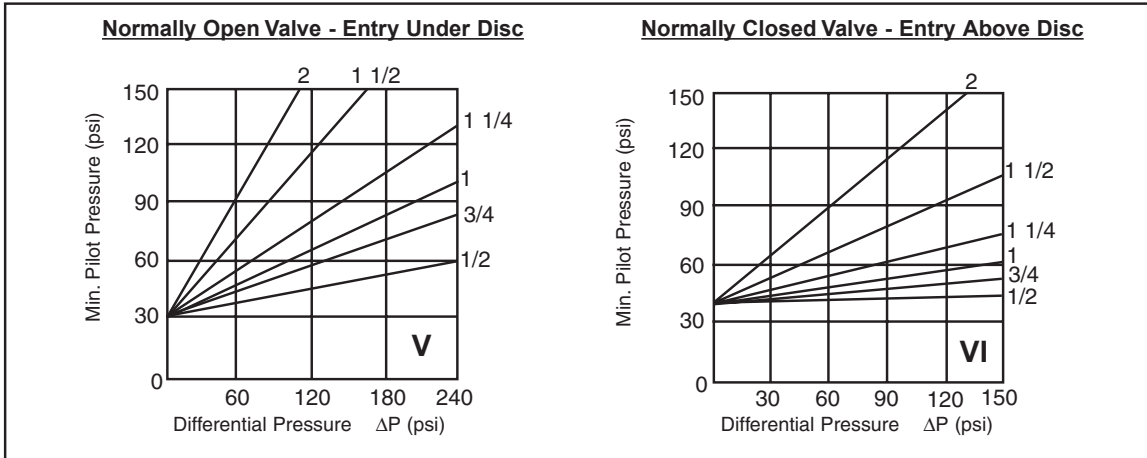


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SERIES  
8290

Air or Water Pilot Operated  
**Angle Body Multi-Purpose Valves**  
Bronze or 316L Stainless Steel Bodies  
3/8" to 2 1/2" NPT

Dimensions: inches

63 mm Operator Graphs for Steam and Fluids

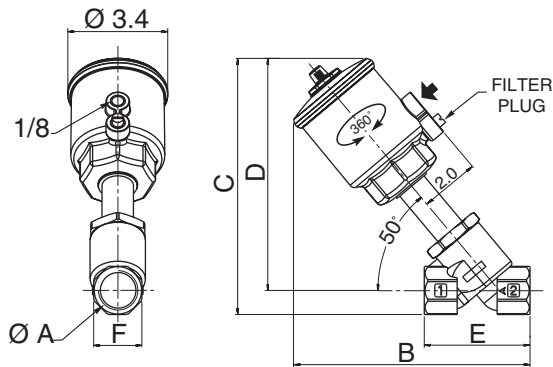


63 mm Operator						
	ØA	B	C	D	E	F
ins.	1/2	6.7	7.2	6.6	2.56	1.06
ins.	3/4	6.8	7.3	6.7	2.95	1.26
ins.	1	7.2	7.7	6.9	3.54	1.61
ins.	1 1/4	8.54	9.01	8.03	4.33	1.97
ins.	1 1/2	8.82	9.64	8.46	4.72	2.36
ins.	2	9.80	10.2	8.82	5.9	2.76

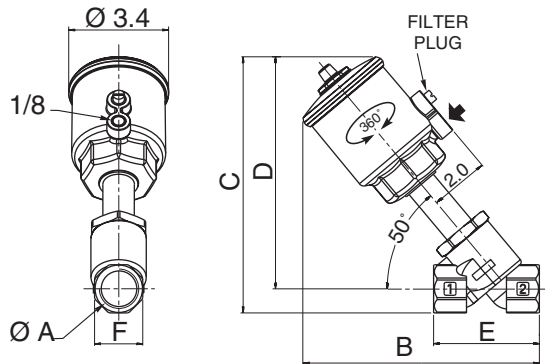


2/2  
SERIES  
8290

Normally Open



Normally Closed



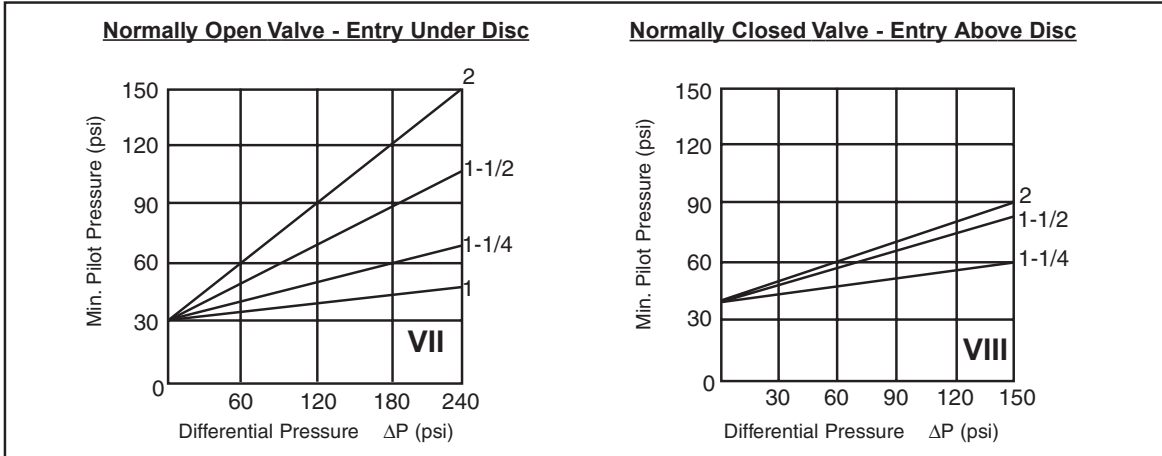


2/2  
SERIES  
8290

Air or Water Pilot Operated  
**Angle Body Multi-Purpose Valves**  
Bronze or 316L Stainless Steel Bodies  
3/8" to 2 1/2" NPT

Dimensions: inches

90 mm Operator Graphs for Steam and Fluids

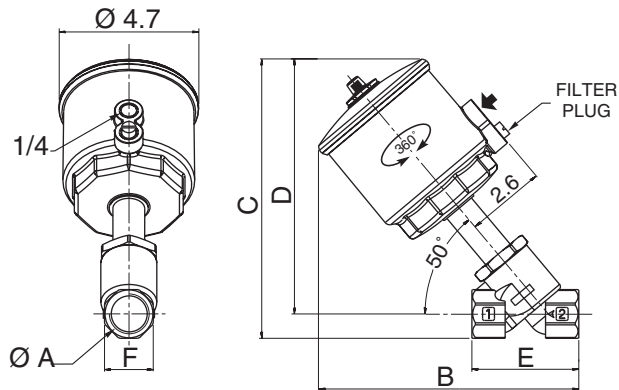


90 mm Operator						
	ØA	B	C	D	E	F
ins.	1	8.0	8.5	7.7	3.54	1.61
ins.	1 1/4	9.29	9.69	8.70	4.33	1.97
ins.	1 1/2	9.57	10.31	9.13	4.72	2.36
ins.	2	10.51	10.87	9.49	5.91	2.76

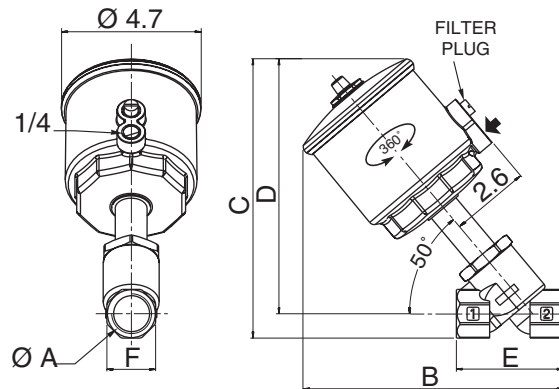


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Normally Open



Normally Closed



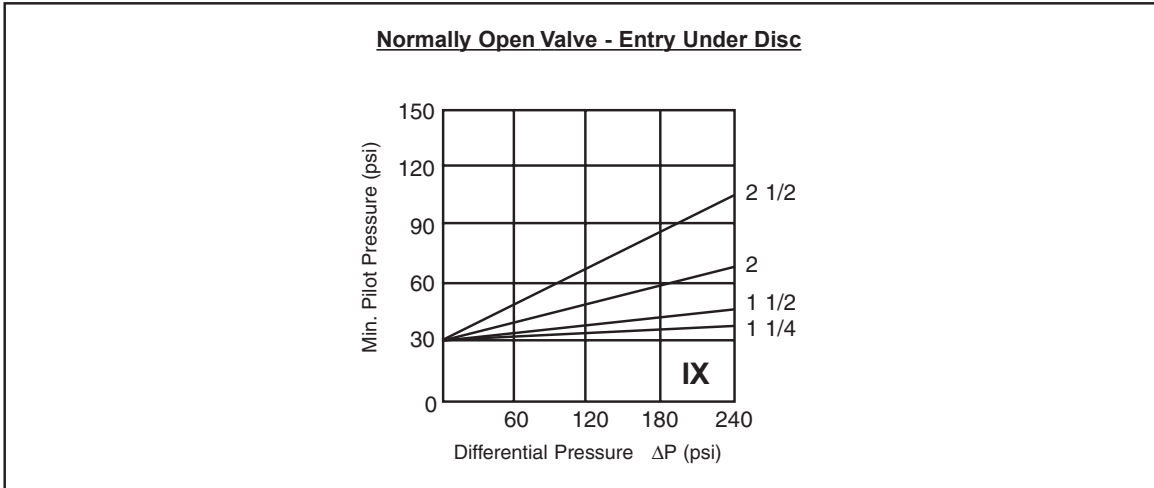


2/2  
SERIES  
8290

Air or Water Pilot Operated  
**Angle Body Multi-Purpose Valves**  
Bronze or 316L Stainless Steel Bodies  
3/8" to 2 1/2" NPT

Dimensions: inches

125 mm Operator Graphs for Steam and Fluids

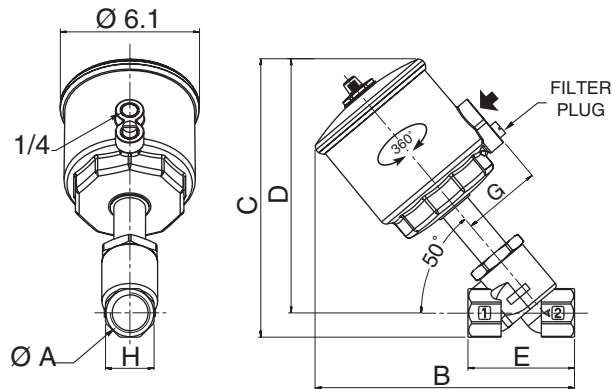


125 mm Operator							
	ØA	B	C	D	E	G	H
ins.	1 1/4	11.1	11.7	10.7	4.3	3.1	2.0
ins.	1 1/2	11.5	12.3	11.2	4.7	3.1	2.4
ins.	2	12.4	12.9	11.5	6.0	3.1	2.8
ins.	2 1/2	13.7	13.9	12.1	7.5	3.1	3.1



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2/2  
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8290

Normally Open



Normally Closed

