

Features

- Spring Return or Double Acting Actuators
- Full Port direct mount ISO5211 valve
- ANSI/ASME Class 150 flanged 2-piece body
- 316 stainless steel body, ball and stem
- Actuators designed for minimum 1 million cycles
- Quarter turn rack and pinion design
- Highly visible valve position indicator
- Actuator factory lubricated for normal lifetime
- Triple RTFE/Viton live loaded stem seals, adjustable
- Valve anti-static device
- Silicone free valve

Applications

On-off control of water, air, oil and other media compatible with the materials of construction. Cycle times approx. 1 to 1.5 seconds per 90° rotation. Steam service up to 50 PSI with optional high temperature mounting bracket. Suitable for vacuum service to 29"Hg.

Pressure-Temperature*

Pressure Rating: 275 PSI (19 Bar), Vacuum to 29inHg

Air Pilot Pressure Required: 80-120 PSI (5.5-8.3 Bar)

Working Temperature: 0 to 180° F (-18 to 82° C)
Media temperatures up to 300° F (149° C)
with optional high temp. mounting bracket

Ball Valve Temperature Rating: 0 to 356° F (-18 to 180° C)

Actuator Temperature Rating: 0 to +180° F (-18 to 82° C)

*See P/T chart

Construction

Valve Body	316 stainless steel ASTM A351 CF8M
Ball/Stem	316 stainless steel
Ball Seats	RTFE (reinforced Teflon)
Stem Seals	RTFE, Viton
Anti-static Device	Ball to Stem (1/2" - 4") + Stem to Body (3/4" - 4")
Actuator Seals	NBR (Buna-N)
Actuator Body	Anodized aluminium, epoxy-polyester coated end covers
Position Indicator	Glass filled Polyamide
Fasteners	Stainless Steel



Operation

Double acting actuators use air pressure to open and air pressure to close the ball valve (4-way pilot). Spring return actuators use air pressure to open and springs to close the ball valve (3-way pilot). Actuator will work with filtered dry or lubricated compressed air. Air supply pilot pressure should be between 80 and 120 PSI. Easy to read visual valve position indicator located on top of actuator.

Description

Heavy duty quarter turn air actuators designed for long life and tested for a minimum 1 million operations. Adjustable live loaded stem seal packing helps compensate for wear, pressure or temperature fluctuations, extending the cycle life of the valve. Blow-out proof stem. Standard Namur mounting pads for optional accessory confirmation switches, pilot valves and valve positioners.

Optional Accessories

- DMS: Direct Mount Solenoid
- pilot to electrically operate the ball valve
- VPS: Valve Position Switches
- limit switches to confirm valve position
- PVP: Pneumatic Valve Positioner
- position the ball with 4-20mA or 0-10v
- HTB: High Temperature Bracket
- increases media working temperature

Specifications (English units)

Stock Number	Pipe Size	Orifice Size (inch)	Cv Flow Factor	Pressure Max.(PSI)*	Cycle Time /90° (seconds)	Pilot Air Port (NPT)
VALVE WITH SPRING RETURN ACTUATOR						
525204	1/2	0.59	15	275	1	1/4
525206	3/4	0.79	35	275	1	1/4
525208	1	1.00	60	275	1	1/4
525212	1-1/2	1.50	125	275	1	1/4
525216	2	2.00	240	275	1	1/4
525224	3	3.15	580	275	1.5	1/4
525232	4	4.00	1020	275	1.5	1/4
VALVE WITH DOUBLE ACTING ACTUATOR						
525234	1/2	0.59	15	275	1	1/8
525235	3/4	0.79	35	275	1	1/8
525236	1	1.00	60	275	1	1/8
525238	1-1/2	1.50	125	275	1	1/4
525239	2	2.00	240	275	1	1/4
525241	3	3.15	580	275	1.5	1/4
525242	4	4.00	1020	275	1.5	1/4

Cv is the GPM of water at 60° F that will pass through the valve with 1 PSI pressure drop

* Pressure @ 100° F (see P/T chart)

Pressure/Temperature Chart (PSI/°F)

P/T Chart							
PSI	275	275	275	260	240	225	215
°F	0	50	100	150	200	250	300

Specifications (Metric units)

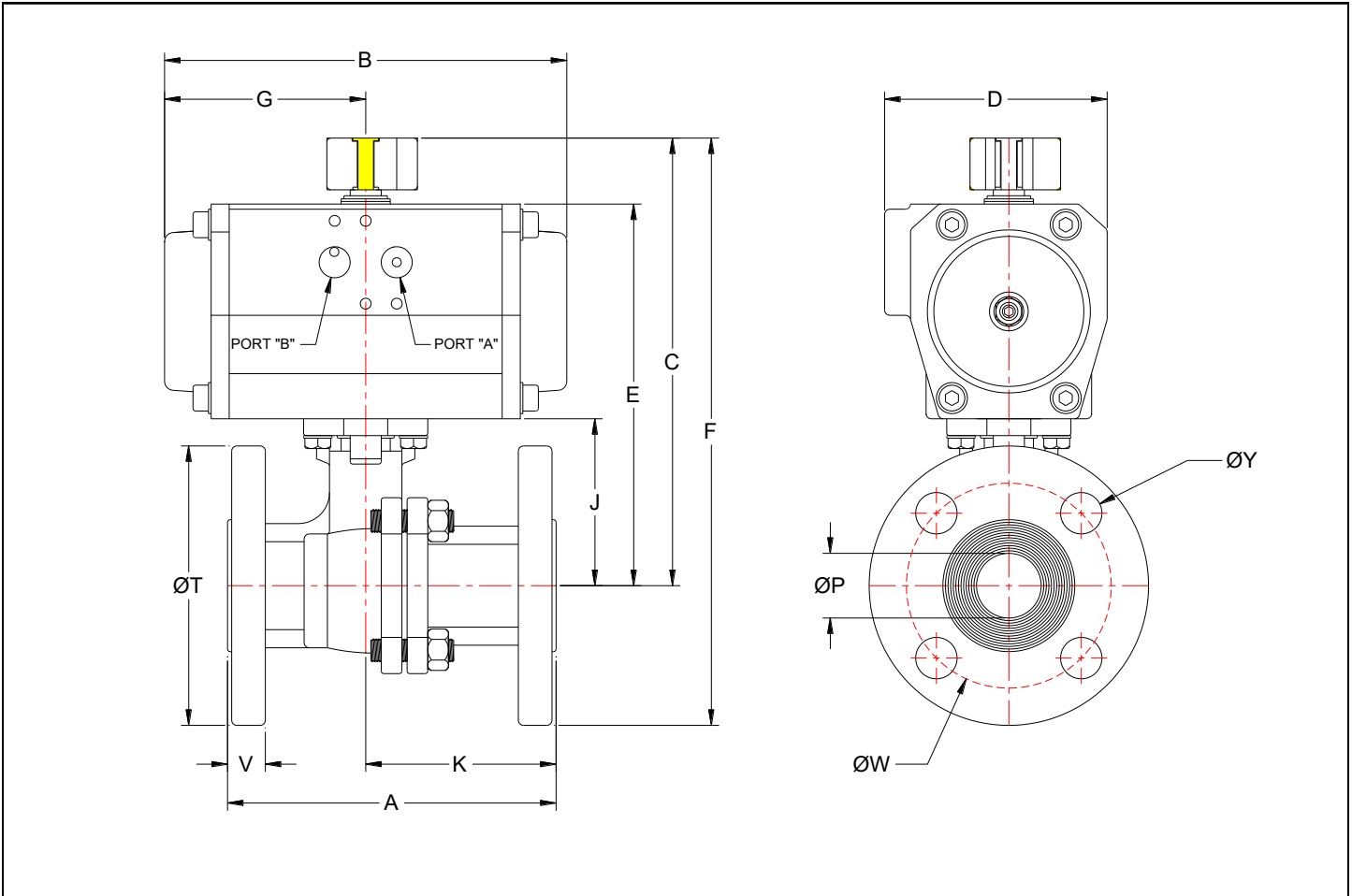
Stock Number	Pipe Size	Orifice Size (mm)	Kv Flow Factor	Pressure Max.(Bar)*	Cycle Time/90° (seconds)	Pilot Air Port (NPT)
VALVE WITH SPRING RETURN ACTUATOR						
525204	1/2	15	13	19	1	1/4
525206	3/4	20	30	19	1	1/4
525208	1	25	52	19	1	1/4
525212	1-1/2	38	108	19	1	1/4
525216	2	50	207	19	1	1/4
525224	3	80	501	19	1.5	1/4
525232	4	98	882	19	1.5	1/4
VALVE WITH DOUBLE ACTING ACTUATOR						
525234	1/2	15	13	19	1	1/8
525235	3/4	20	30	19	1	1/8
525236	1	25	52	19	1	1/8
525238	1-1/2	38	108	19	1	1/4
525239	2	50	207	19	1	1/4
525241	3	80	501	19	1.5	1/4
525242	4	98	882	19	1.5	1/4

* Pressure @ -18 to 38° C (see P/T chart)

Pressure/Temperature Chart (Bar/°C)

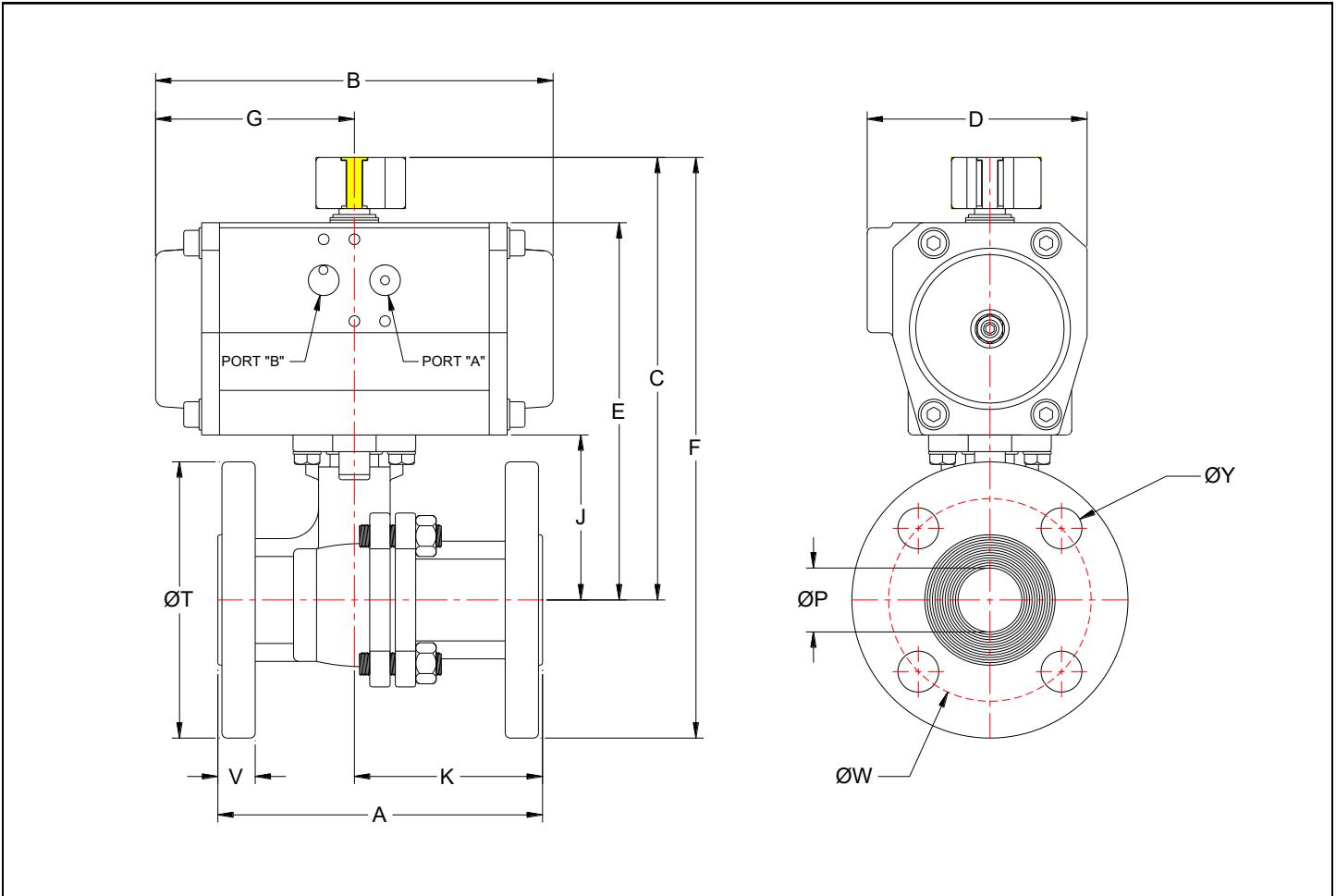
P/T Chart							
Bar	19	19	19	18	16.5	15.5	14.8
°C	-18	10	38	66	93	121	149

Dimensions: Spring Return (inches (mm))



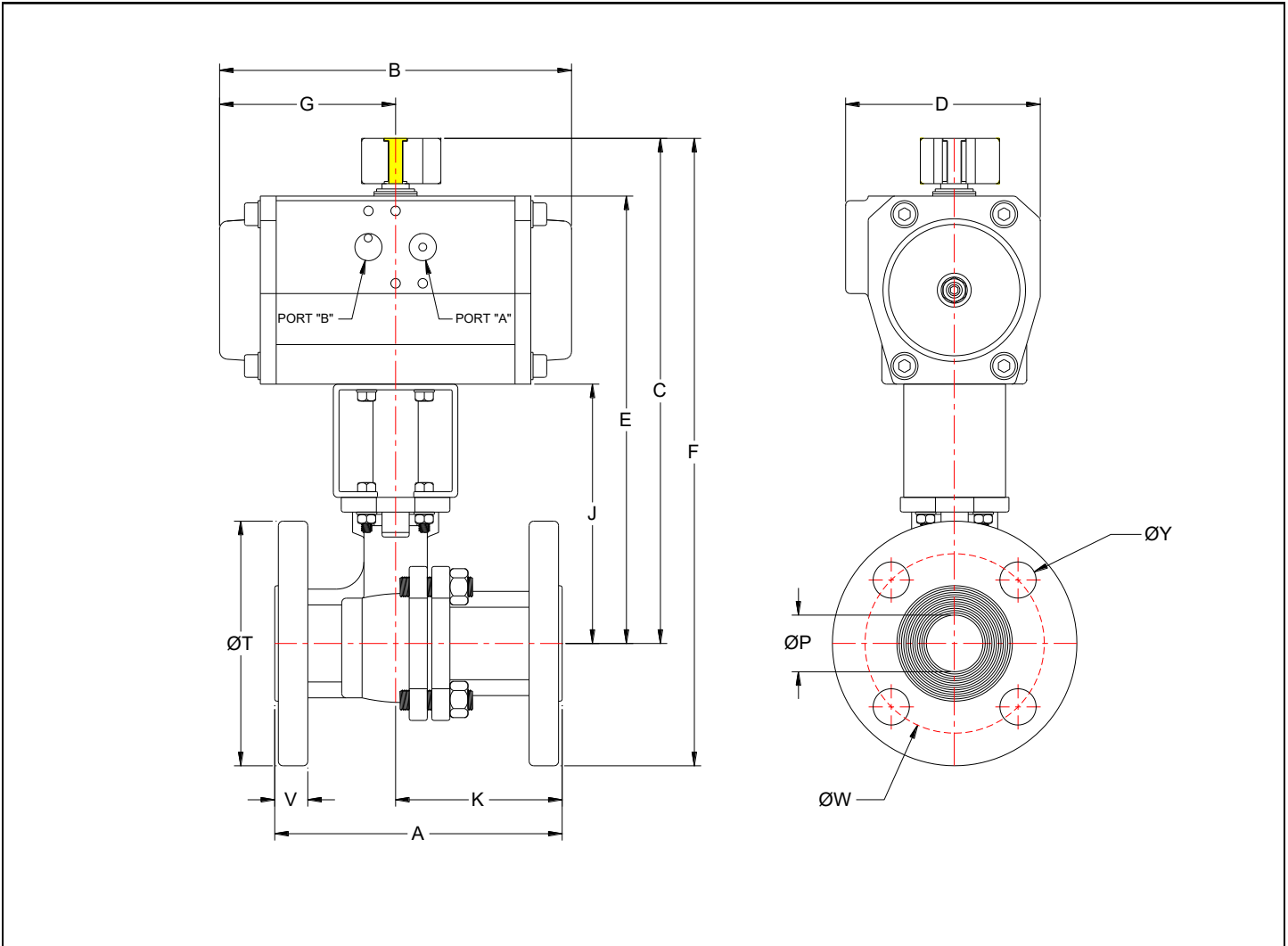
Pipe Size		A	B	C	D	E	F	G	J	K	P	T	V	W	Y	Ports (NPT)	Weight
1/2	Inch	4.25	5.98	6.14	3.39	5.18	7.89	2.99	1.89	2.46	0.59	3.50	0.44	2.38	4) 0.63	1/4	7.9 lb
	mm	108	152	156	86	131.5	200.5	76	48	62.5	15	89	11.20	60.5	4) 16	-	3.6 kg
3/4	inch	4.61	5.98	6.36	3.39	5.39	8.3	2.99	2.09	2.60	0.79	3.88	0.50	2.76	4) 0.63	1/4	8.9 lb
	mm	117	152	161.5	86	137	210.8	76	53.5	66	20	98.6	12.7	70	4) 16	-	4.0 kg
1	inch	5.00	6.14	6.57	3.39	5.79	8.70	3.07	2.52	2.92	0.98	4.25	0.56	3.12	4) 0.63	1/4	10.6 lb
	mm	127	156	167	86.0	147	221	78	64	74.1	25	108	14.3	79.2	4) 16	-	4.8 kg
1-1/2	inch	6.50	9.06	8.11	4.09	7.32	10.63	4.53	2.99	3.67	1.50	5.00	0.69	3.88	4) 0.63	1/4	22.5 lb
	mm	165	230	206	104	186	270	115	76	93.2	38	127	17.5	98.6	4) 16	-	10 kg
2	inch	7.01	9.06	8.46	4.09	7.68	11.50	4.53	3.33	3.92	1.97	6.00	0.75	4.75	4) 0.75	1/4	29 lb
	mm	178	230	215	104	195	292	115	84.5	99.6	50	153	19.1	120.7	4) 19	-	13 kg
3	inch	7.99	14.25	11.85	5.55	10.67	15.59	7.13	4.57	4.21	2.99	7.50	0.94	6.00	4) 0.75	1/4	68 lb
	mm	203	362	301	141	271	396	181	116	107	76	191	23.9	152.4	4) 19	-	30.9 kg
4	inch	9.02	15.35	14.17	6.42	12.99	18.66	7.68	6.08	4.37	3.94	9.00	0.94	7.50	8) 0.75	1/4	100 lb
	mm	229	390	360	163	330	474	195	155	111	100	229	23.9	190.5	8) 19	-	45.3 kg

Dimensions: Double Acting (inches (mm))



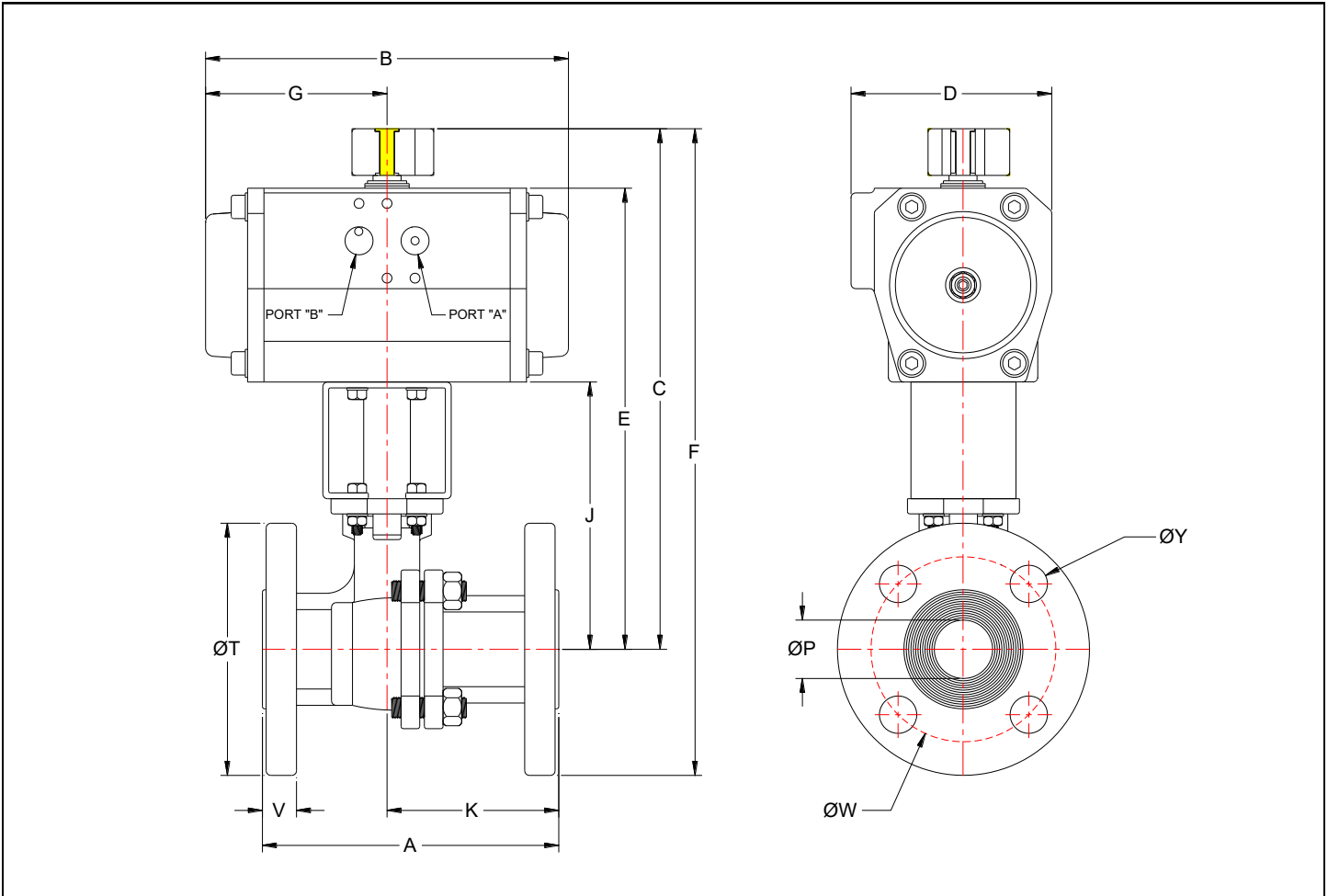
Pipe Size		A	B	C	D	E	F	G	J	K	P	T	V	W	Y	Ports (NPT)	Weight
1/2	inch	4.25	5.47	5.52	2.95	4.57	7.27	2.74	1.89	2.46	0.59	3.50	0.44	2.38	4) 0.63	1/8	6.2 lb
	mm	108	139	140.1	75	116	184.6	69.5	48	62.5	15	89	11.20	60.5	4) 16	-	2.8 kg
3/4	inch	4.61	5.47	5.73	2.95	4.78	7.67	2.74	2.11	2.60	0.79	3.88	0.50	2.76	4) 0.63	1/8	7.2 lb
	mm	117	139	145.6	75	121.5	194.9	69.5	53.5	66	20	98.6	12.7	70	4) 16	-	3.3 kg
1	inch	5.00	5.47	5.94	2.95	5.16	8.07	2.74	2.52	2.92	0.98	4.25	0.56	3.12	4) 0.63	1/8	8.9 lb
	mm	127	139	151	75	131	205	69.5	64	74.1	25	108	14.3	79.2	4) 16	-	4 kg
1-1/2	inch	6.50	8.27	7.72	3.70	6.93	10.24	4.13	2.99	3.67	1.50	5.00	0.69	3.88	4) 0.63	1/4	18.5 lb
	mm	165	210	196	94	176	260	105	76	93.2	38	127	17.5	98.6	4) 16	-	8.4 kg
2	inch	7.01	8.27	8.07	3.70	7.28	11.10	4.13	3.33	3.92	1.97	6.00	0.75	4.75	4) 0.75	1/4	24.6 lb
	mm	178	210	205	94	185	282	105	84.5	99.6	50	153	19.1	120.7	4) 19	-	11 kg
3	inch	7.99	11.02	10.28	4.72	9.49	14.02	5.51	4.57	4.21	2.99	7.50	0.94	6.00	4) 0.75	1/4	50.4 lb
	mm	203	280	261	120	241	356	140	116	107	76	191	23.9	152.4	4) 19	-	22.3 kg
4	inch	9.02	12.20	12.87	5.28	11.69	17.36	6.10	6.08	4.37	3.94	9.00	0.94	7.50	8) 0.75	1/4	79 lb
	mm	229	310	327	134	297	441	155	155	111	100	229	23.9	190.5	8) 19	-	35.9 kg

Dimensions: Spring Return with High Temp. Bracket (inches (mm))



Pipe Size		A	B	C	D	E	F	G	J	K	P	T	V	W	Y	Ports (NPT)	Weight
1/2	inch	4.25	5.98	8.11	3.39	7.15	9.86	2.99	3.86	2.46	0.59	3.50	0.44	2.38	4) 0.63	1/4	8.5 lb
	mm	108	152	206	86	181.5	250.5	76	98	62.5	15	89	11.20	60.5	4) 16	-	3.9 kg
3/4	inch	4.61	5.98	8.33	3.39	7.36	10.27	2.99	4.07	2.60	0.79	3.88	0.50	2.76	4) 0.63	1/4	9.5 lb
	mm	117	152	211.5	86	187	260.8	76	103.5	66	20	98.6	12.7	70	4) 16	-	4.3 kg
1	inch	5.00	6.14	8.54	3.39	7.76	10.67	3.07	4.49	2.92	0.98	4.25	0.56	3.12	4) 0.63	1/4	11.3 lb
	mm	127	156	217	86	197	271	78	114	74.1	25	108	14.3	79.2	4) 16	-	5.1 kg
1-1/2	inch	6.50	9.06	10.08	4.09	9.29	12.60	4.53	4.96	3.67	1.50	5.00	0.69	3.88	4) 0.63	1/4	23.5 lb
	mm	165	230	256	104	236	320	115	126	93.2	38	127	17.5	98.6	4) 16	-	10.6 kg
2	inch	7.01	9.06	10.43	4.09	9.65	13.46	4.53	5.31	3.92	1.97	6.00	0.75	4.75	4) 0.75	1/4	29.6 lb
	mm	178	230	265	104	245	342	115	135	99.6	50	153	19.1	120.7	4) 19	-	13.4 kg
3	inch	7.99	14.25	13.82	5.55	12.64	17.56	7.13	6.54	4.21	2.99	7.50	0.94	6.00	4) 0.75	1/4	69.3 lb
	mm	203	362	351	141	321	446	181	166	107	76	191	23.9	152.4	4) 19	-	31.4 kg

Dimensions: Double Acting with High Temp Bracket (inches (mm))



Pipe Size		A	B	C	D	E	F	G	J	K	P	T	V	W	Y	Ports (NPT)	Weight
1/2	inch	4.25	5.47	7.48	2.95	6.54	9.24	2.74	3.86	2.46	0.59	3.50	0.44	2.38	4) 0.63	1/8	6.8 lb
	mm	108	139	190.1	75	166	234.6	69.5	98	62.5	15	89	11.20	60.5	4) 16	-	3.1 kg
3/4	inch	4.61	5.47	7.7	2.95	6.75	9.64	2.74	4.07	2.60	0.79	3.88	0.50	2.76	4) 0.63	1/8	7.8 lb
	mm	117	139	195.6	75	171.5	244.9	69.5	103.5	66	20	98.6	12.7	70	4) 16	-	3.5 kg
1	inch	5.00	5.47	7.91	2.95	7.13	10.04	2.74	4.49	2.92	0.98	4.25	0.56	3.12	4) 0.63	1/8	9.6 lb
	mm	127	139	201	75	181	255	69.5	114	74.1	25	108	14.3	79.2	4) 16	-	4.3 kg
1-1/2	inch	6.50	8.27	9.69	3.70	8.90	12.20	4.13	4.96	3.67	1.50	5.00	0.69	3.88	4) 0.63	1/4	19.5 lb
	mm	165	210	246	94	226	310	105	126	93.2	38	127	17.5	98.6	4) 16	-	8.8 kg
2	inch	7.01	8.27	10.04	3.70	9.25	13.07	4.13	5.31	3.92	1.97	6.00	0.75	4.75	4) 0.75	1/4	25.6 lb
	mm	178	210	255	94	235	332	105	135	99.6	50	153	19.1	120.7	4) 19	-	11.6 kg
3	inch	7.99	11.02	12.24	4.72	11.46	15.98	5.51	6.54	4.21	2.99	7.50	0.94	6.00	4) 0.75	1/4	51.6 lb
	mm	203	280	311	120	291	406	140	166	107	76	191	23.9	152.4	4) 19	-	23.4 kg
4	inch	9.02	12.20	14.84	5.28	13.66	19.33	6.10	8.07	4.37	3.94	9.00	0.94	7.50	8) 0.75	1/4	80.2 lb
	mm	229	310	377	134	347	491	155	205	111	100	229	23.9	190.5	8) 19	-	36.4 kg