

### Features

- 316 stainless steel body, ball, & stem
- RTFE (reinforced Teflon) ball seats
- Triple PTFE/Viton live loaded stem seals, adjustable
- Valves are tested per API 598
- Valve anti-static device
- Rack and pinion quarter turn (90°) rotation
- Compact double acting rack and pinion actuators
- Type IP67 weatherproof actuator
- Actuators designed for minimum 1 million cycles
- Highly visible valve position indicator

### Applications

On-off control of water, air, oil and other media compatible with the materials of construction. Cycle times approx. 1 second per 90° rotation. Valves can be mounted in any orientation. Steam service up to 25 PSI with optional high temperature mounting bracket. Suitable for vacuum service to 29"Hg.

### 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 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. An easy to read visual valve position indicator is located on top of actuator.

### Construction

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



### Description

Compact heavy duty quarter turn air actuators designed for long life and tested for a minimum 1 million operations. Investment cast 2-piece full port stainless steel body/ball for unrestricted flow and minimum pressure loss. 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 pad for optional solenoid pilot valves.

### Approvals– Actuators

- CE conformance– MD 2006/42/CE
- ISO5211/ DIN3337 valve mounting
- Namur VDI/VDE 3845 accessory mounting

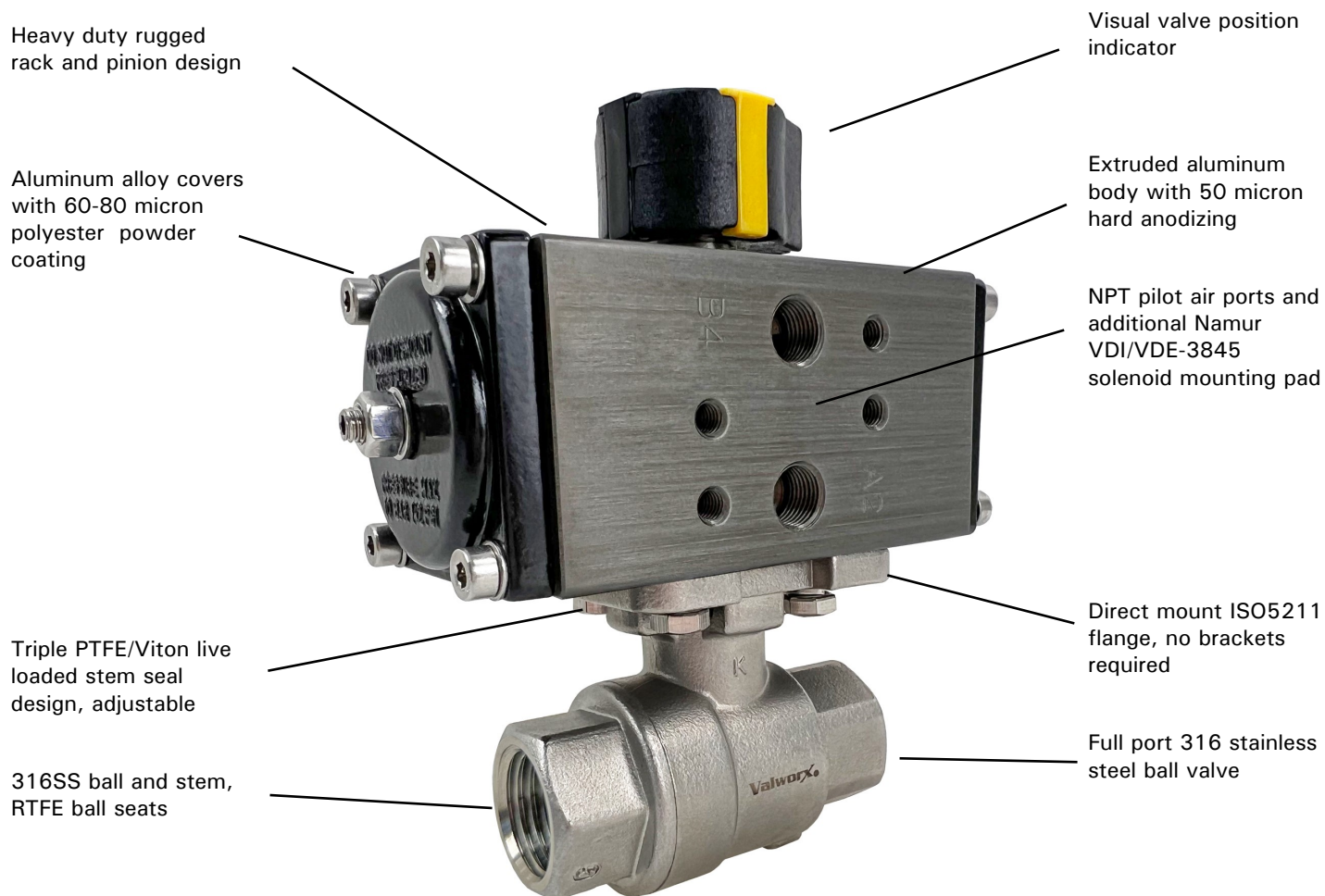
### Standards– Valves

- Design: API 608
- Testing: API 598
- Threaded Connection:  
ASME B1.20.1 (NPT)/ ISO 228-1/ BS21
- Pressure/Temperature Rating:  
ASME B16.34
- Marking: MSS SP-25
- CE conformance– PED 2014/68/UE

### Optional Accessories

- DMS: Direct Mount Solenoid
- pilot to electrically operate the ball valve
- SVC: Solenoid Valve Cable
- provide electrical power via pre-wired cable

## Construction Features



## Pressure-Temperature\*

**Working Pressure:** 150 PSI (10 Bar), 25 PSI saturated steam with high temp kit, Vacuum 29inHg

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

**Ball Valve Temperature Rating:** -4 to 392° F (-20 to 200° C)

**Actuator Temperature Rating:** -4 to +180° F (-20 to 82° C)

## Specifications (English units)

Stock Number	Pipe Size (NPT)	Orifice Size (inch)	Cv Flow Factor	Pressure Max. (PSI)*	Air Volume/ 90° (cubic inches)	Cycle Time /90° (seconds)	Pilot Air Port (NPT)
523402C	1/4	0.5	6.9	1000	2.2	1	1/8
523403C	3/8	0.5	6.9	1000	2.2	1	1/8
523404C	1/2	0.6	9.7	1000	2.2	1	1/8

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

## Specifications (Metric units)

Stock Number	Pipe Size	Orifice Size	Kv Flow	Pressure	Air Volume/	Cycle Time/90°	Pilot Air Port
523502C	1/4	11.5	5.9	69	2.2	1	1/8
523503C	3/8	12.5	5.9	69	2.2	1	1/8
523504C	1/2	15.0	8.4	69	2.2	1	1/8

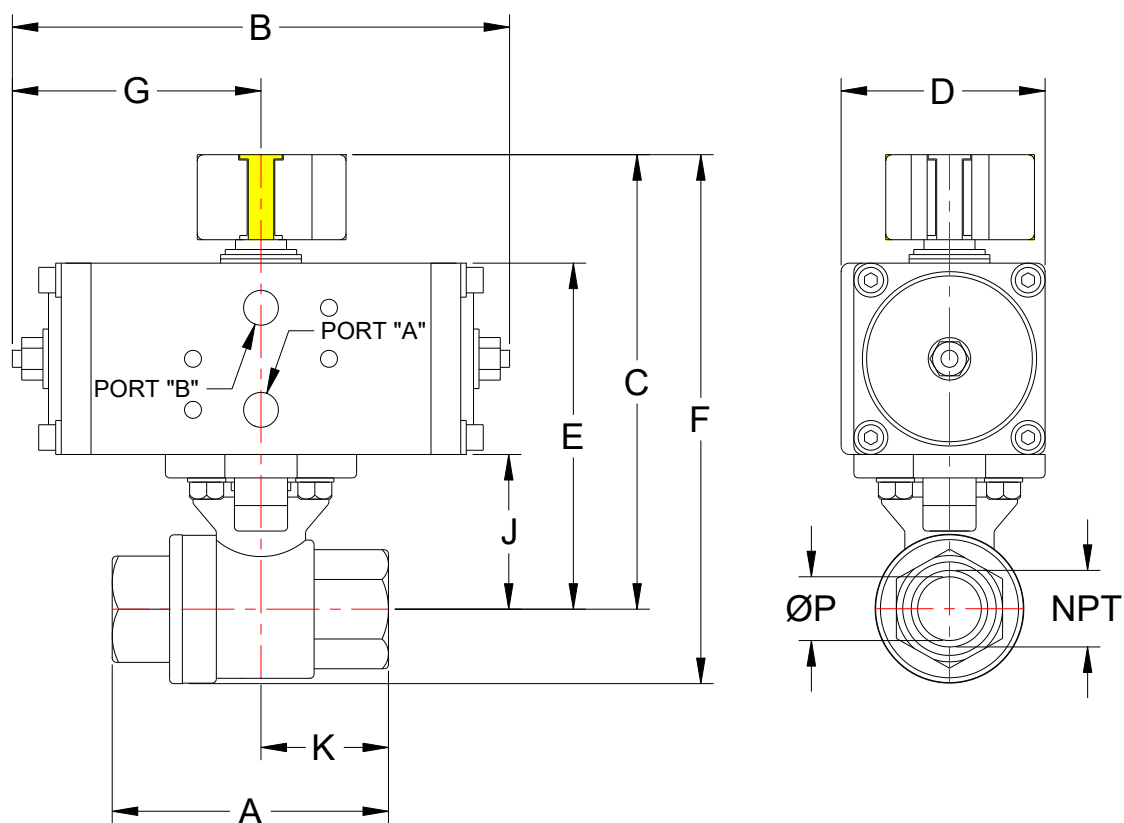
## Pressure/Temperature Chart (PSI/°F)

P/T Chart							
PSI	1000	1000	1000	950	875	750	375
°F	-4	50	100	150	200	250	300

## Pressure/Temperature Chart (Bar/°C)

P/T Chart							
Bar	69	69	69	65	60	52	26
°C	-20	10	38	70	93	121	149

## Dimensions: Double Acting



Stock	Pipe Size		A	B	C	D	E	F	G	J	K	P	A & B Ports	Weight
523402C	1/4	inch	2.6	4.6	4.0	1.9	3.2	4.7	2.3	1.5	1.2	0.5	1/8	2.0 lb
		mm	65.3	116.8	101.6	48.3	81.3	119.4	58.4	38.1	30.5	11.5	-	0.9 kg
523403C	3/8	inch	2.6	4.6	4.0	1.9	3.2	4.7	2.3	1.5	1.2	0.5	1/8	2.0 lb
		mm	65.3	116.8	101.6	48.3	81.3	119.4	58.4	38.1	30.5	12.5	-	0.9 kg
523404C	1/2	inch	2.6	4.6	4.0	1.9	3.2	4.7	2.3	1.5	1.2	0.6	1/8	1.9 lb
		mm	65.3	116.8	101.6	48.3	81.3	119.4	58.4	38.1	30.5	15.2	-	0.8 kg