

| | |
|---------------|------------------|
| JOB NAME: | CONTRACTOR: |
| JOB LOCATION: | APPROVAL: |
| ENGINEER: | CONTRACTOR P.O.: |
| APPROVAL: | REPRESENTATIVE: |

| | | | |
|--------------------------------------|---------------|--------------------------------------|---------------|
| EP710190V36DA - EP710061V36DA | 30-60° | EP710190V36SR - EP710061V36SR | 30-60° |
| EP710190V6DA - EP710061V6DA | 60° | EP710190V6SR - EP710061V6SR | 60° |
| EP710190V9DA - EP710061V9DA | 90° | EP710190V6SR - EP710061V9SR | 90° |

710190V36/V6/V9, 3-PC, 2-WAY STAINLESS STEEL V-BALL VALVE, FULL PORT NPT BALL VALVE WITH **DOUBLE ACTING PNEUMATIC ACTUATOR AND ELECTRIC **ENP-B 4-20mA PSI POSITIONER****

SIZES 1/2" TO 4"

710061 - SW

710190V36/V6/V9, 3-PC, 2-WAY STAINLESS STEEL V-BALL VALVE, FULL PORT NPT BALL VALVE WITH **SPRING RETURN PNEUMATIC ACTUATOR AND ELECTRIC **ENP-B 4-20mA PSI POSITIONER****

SIZES 1/2" TO 4"

710061 - SW

SPECIFICATIONS

The EP710190V36/V6/V9 series electric V-ball packages feature the Valpres 3-piece stainless steel series 710190 NPT ball valve with 25% carbon filled PTFE seats, and thermal relief hole in the stem slot. The valves are rated for 1000psi maximum working pressure. The Valbia pneumatic actuator comes with a hard-anodized aluminum body, and powder coat-ed end caps. In addition, all Valbia pneumatic actuators are standardly furnished with elevated temperature seals to 302°F. The patented side loaded limit stops never enter the piston chamber eliminating extra possible leak paths. The assembled package also includes the ENP-B electro-pneumatic positioner that accurately controls the valve stroke in response to an input signal of 4-20mA from the controller.

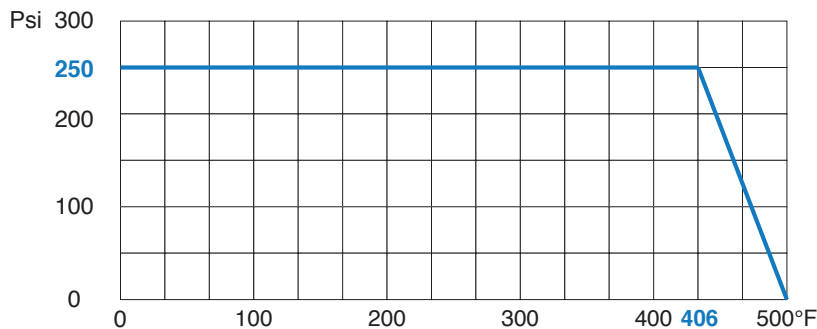
- Hard anodized extruded aluminum body
- Concentric spring sets
- Die cast aluminum end caps
- Solid steel barstock pinion (not casting)
- 0°-90° rotation adjustment cam
- 0°-90° rotation adjustment bolts
- POM piston guides
- Minimum air pressure rating: 80 psi
- Maximum air pressure rating: 116 psi
- Working temperature: -4°F - 302°F
- No lubrication maintenance required for the entire actuator lifetime
- 100% factory tested

VALVE FEATURES

- CF8M Stainless Steel
- Sizes 1/2" to 4"
- Temperature range: -4°F to 406° F.
- Blow out proof stem, Antistatic Device.
- ISO 5211 mounting pad with double "D" stem
- 100% tested.
- TUV T.A. Luft approved.
- 25% carbon filled P.T.F.E. ball seats; thermal relief hole in the ball.

ACTUATOR FEATURES

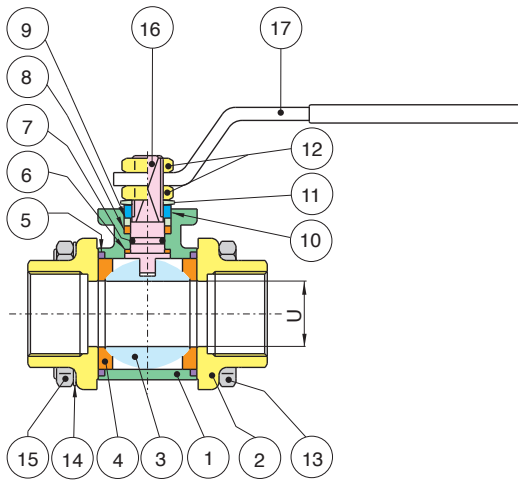
PRESSURE - TEMPERATURE CHART FOR SERIES 710190V36/V6/V9



EP710190V * DA - EP710190V * SR V-BALL SERIES MODEL OPTIONS

| | |
|---|--|
|  | 90° V-BALL |
| | EP710190V9DA EP710190V9SR |
|  | 60° V-BALL |
| | EP710190V6DA EP710190V6SR |
|  | 30-60° V-BALL |
| | EP710190V36DA EP710190V36SR |

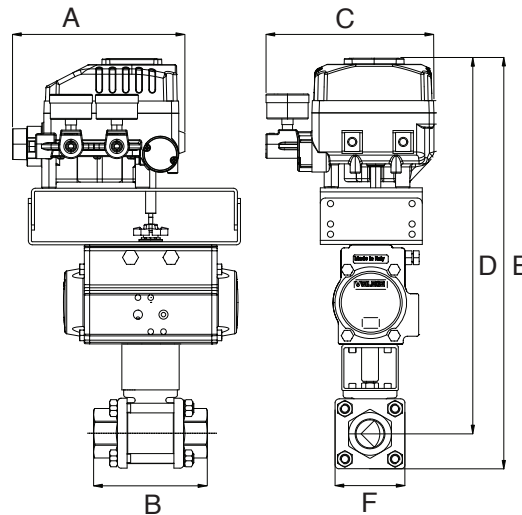
BILL OF MATERIALS FOR 710190V36/V6/V9



| N POS | PART NAME | MATERIAL | N PCS |
|-------|---------------|---------------|-------|
| 1 | BODY | CF8M | 1 |
| 2 | END CAP | CF8M | 2 |
| 3 | BALL | AISI 304-CF8M | 1 |
| 4 | BALL SEAT | R.P.T.F.E. | 2 |
| 5 | SEAL | VITON | 2 |
| 6 | STEM SEAL | R.P.T.F.E. | 1 |
| 7 | O-RING | FKM (Viton) | 1 |
| 8 | STEM SEAL | R.P.T.F.E. | 1 |
| 9 | PACKING GLAND | STEEL | 1 |

| N POS | PART NAME | MATERIAL | N PCS |
|-------|---------------|----------------------|-------|
| 10 | END STOP | AISI 430 (1/4" - 2") | 2 |
| | | STEEL (2-1/2" - 4") | 1 |
| 11 | SPRING WASHER | STEEL (2-1/2" - 4") | 2 |
| 12 | NUT | STEEL | 2 |
| 13 | BOLT | STEEL (1/4" - 2") | 4 |
| | | STEEL (2-1/2" - 4") | 6 |
| 14 | WASHER | STEEL (1/4" - 2") | 4 |
| | | STEEL (2-1/2" - 4") | 6 |
| 15 | NUT | STEEL (1/4" - 2") | 4 |
| | | STEEL (2-1/2" - 4") | 6 |
| 16 | STEM | AISI 304 | 1 |
| 17 | HANDLE | STEEL | 1 |

DIMENSIONS



EP710190V36DA 710190V36 with **DA** Actuator & ENP-B Positioner
EP710190V6DA 710190V6 with **DA** Actuator & ENP-B Positioner
EP710190V9DA 710190V9 with **DA** Actuator & ENP-B Positioner

EP710190V36SR 710190V36 with **SR** Actuator & ENP-B Positioner
EP710190V6SR 710190V6 with **SR** Actuator & ENP-B Positioner
EP710190V9SR 710190V9 with **SR** Actuator & ENP-B Positioner

| Size | A | B | C | D | E | ACT. DA |
|--------|------|------|------|-------|-------|---------|
| 1/2" | 6.65 | 2.55 | 6.98 | 10.76 | 11.51 | 52 |
| 3/4" | 6.65 | 2.99 | 6.98 | 13.60 | 14.54 | 52 |
| 1" | 6.65 | 3.62 | 6.98 | 13.79 | 14.94 | 52 |
| 1-1/4" | 6.65 | 4.19 | 6.98 | 13.95 | 15.25 | 63 |
| 1-1/2" | 6.65 | 4.56 | 6.98 | 15.21 | 16.71 | 63 |
| 2" | 6.65 | 5.36 | 6.98 | 16.16 | 17.93 | 63 |
| 2-1/2" | 6.65 | 6.04 | 6.98 | 17.26 | 19.90 | 85 |
| 3" | 6.65 | 7.08 | 6.98 | 17.69 | 20.89 | 85 |
| 4" | 6.65 | 8.54 | 6.98 | 19.62 | 23.36 | 100 |

| Size | A | B | C | D | E | ACT. SR |
|--------|------|------|------|-------|-------|---------|
| 1/2" | 6.65 | 2.55 | 6.98 | 16.95 | 17.70 | 63 |
| 3/4" | 6.65 | 2.99 | 6.98 | 19.79 | 20.73 | 63 |
| 1" | 6.65 | 3.62 | 6.98 | 19.98 | 21.13 | 75 |
| 1-1/4" | 6.65 | 4.19 | 6.98 | 20.14 | 21.44 | 85 |
| 1-1/2" | 6.65 | 4.56 | 6.98 | 21.40 | 22.90 | 85 |
| 2" | 6.65 | 5.36 | 6.98 | 22.35 | 24.12 | 100 |
| 2-1/2" | 6.65 | 6.04 | 6.98 | 23.45 | 26.09 | 115 |
| 3" | 6.65 | 7.08 | 6.98 | 23.88 | 27.08 | 125 |
| 4" | 6.65 | 8.54 | 6.98 | 25.81 | 29.55 | 160 |

CV VERSUS VALVE OPENING PERCENTAGE

| Size | Degree | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% |
|--------|--------|-----|-----|------|------|------|-------|-------|--------|-----|
| 1/2" | 30-60° | 0 | 0.0 | 0.1 | 0.2 | 0.4 | 0.6 | 1.0 | 1.7 | 3 |
| | 60° | 0 | 0.1 | 0.2 | 0.4 | 0.7 | 1.2 | 1.9 | 3.3 | 6 |
| | 90° | 0 | 0.1 | 0.3 | 0.7 | 1.2 | 2.0 | 3.4 | 5.9 | 10 |
| 3/4" | 30-60° | 0 | 0.1 | 0.2 | 0.5 | 0.8 | 1.3 | 2.2 | 3.9 | 6 |
| | 60° | 0 | 0.1 | 0.4 | 0.9 | 1.5 | 2.6 | 4.3 | 7.5 | 12 |
| | 90° | 0 | 0.3 | 0.8 | 1.6 | 2.7 | 4.6 | 7.7 | 13.3 | 22 |
| 1" | 30-60° | 0 | 0.1 | 0.4 | 0.8 | 1.4 | 2.4 | 4.0 | 6.9 | 11 |
| | 60° | 0 | 0.3 | 0.8 | 1.6 | 2.7 | 4.6 | 7.7 | 13.4 | 22 |
| | 90° | 0 | 0.5 | 1.4 | 2.8 | 4.9 | 8.2 | 13.7 | 23.7 | 39 |
| 1-1/4" | 30-60° | 0 | 0.2 | 0.7 | 1.3 | 2.3 | 3.9 | 6.5 | 11.3 | 18 |
| | 60° | 0 | 0.4 | 1.3 | 2.5 | 4.5 | 7.6 | 12.7 | 21.9 | 36 |
| | 90° | 0 | 0.8 | 2.2 | 4.5 | 8.0 | 13.4 | 22.4 | 38.8 | 64 |
| 1-1/2" | 30-60° | 0 | 0.3 | 1.0 | 2.0 | 3.5 | 5.9 | 9.8 | 17.0 | 28 |
| | 60° | 0 | 0.7 | 2.0 | 4.0 | 7.1 | 11.9 | 20.0 | 34.5 | 57 |
| | 90° | 0 | 1.1 | 3.3 | 6.6 | 11.6 | 19.5 | 32.6 | 56.4 | 93 |
| 2" | 30-60° | 0 | 0.5 | 1.5 | 3.1 | 5.5 | 9.2 | 15.4 | 26.7 | 44 |
| | 60° | 0 | 1.1 | 3.1 | 6.3 | 11.1 | 18.7 | 31.2 | 54.0 | 89 |
| | 90° | 0 | 2.0 | 6.0 | 12.0 | 21.2 | 35.6 | 59.5 | 102.9 | 170 |
| 3" | 30-60° | 0 | 1.3 | 3.9 | 7.8 | 13.8 | 23.2 | 38.9 | 67.2 | 111 |
| | 60° | 0 | 2.7 | 7.9 | 16.0 | 28.2 | 47.4 | 79.3 | 137.1 | 227 |
| | 90° | 0 | 4.7 | 13.6 | 27.3 | 48.1 | 80.9 | 135.4 | 234.1 | 387 |
| 4" | 30-60° | 0 | 2.1 | 6.1 | 12.3 | 21.6 | 36.3 | 60.8 | 105.2 | 174 |
| | 60° | 0 | 4.3 | 12.4 | 25.0 | 44.1 | 74.1 | 124.1 | 214.5 | 355 |
| | 90° | 0 | 8.1 | 23.6 | 47.5 | 88.8 | 140.8 | 235.7 | 407.50 | 675 |