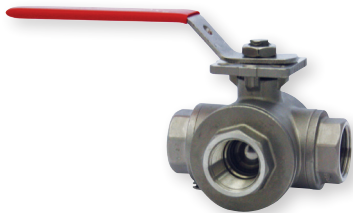
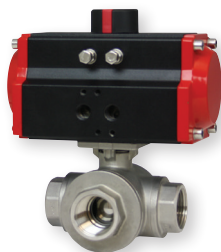


3-WAY NPT STAINLESS STEEL BALL VALVES

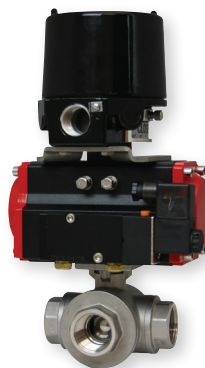
Full Port, Vented Ball, Electric or Pneumatic Actuators



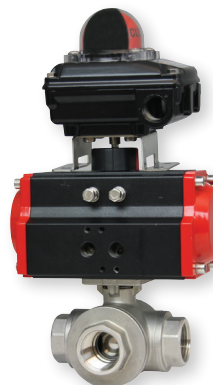
WE31-DHD00-T1



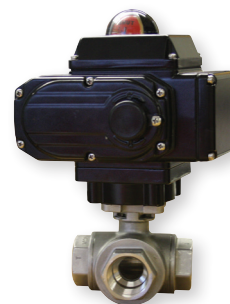
WE31-DDA02-L1



WE31-DDA02-T1-AA01



WE31-DDA02-T3-NN05



WE31-DTD01-T3-A



The **Series WE31 3-Way NPT Stainless Steel Ball Valves** incorporate a full port valve for great flow rates with minimal pressure drop. The valve features a blowout-proof stem for added safety, reinforced PTFE seats and seals for longer life, and a 316 SS (ASTM CF8M) ball for better performance. Actuators are direct mounted creating a compact assembly for tight spaces. Limit switches are able to be mounted directly to the valves allowing for remote position indication.

The Series WE31 can be configured with either an electric or pneumatic actuator. Electric actuators are available in weatherproof or explosion-proof, a variety of supply voltages and two-position or modulating control. Two-position actuators use the supply voltage to drive the valve open or closed, while the modulating actuator accepts a 4-20 mA input for valve positioning. Actuators feature thermal overload protection and permanently lubricated gear train.

The pneumatic double acting actuator uses an air supply to drive the valve open and closed. The actuator has two supply ports, with one driving the valve open and the other driving the valve closed. Spring return pneumatic actuators use the air supply to open the valve, and internally loaded springs return the valve to the closed position. Also available is the SN solenoid valve to electrically switch the air supply pressure between the air supply ports for opening and closing the valve. Actuators are constructed of anodized and epoxy coated aluminum for years of corrosion free service.

FEATURES/BENEFITS

- Capable of being configured to fit any application
- Limit switches can be mounted to manual valves for remote monitoring
- Vented ball to reduce operating torque
- Weatherproof or explosion-proof electric actuators
- Double acting or spring return anodized aluminum pneumatic actuators
- Full port design reduces the pressure drop across the valve

APPLICATIONS

- Gas or liquid flow control
- Ideal for quick bubble tight shut-off
- Mixing or diverting liquids and gases

SPECIFICATIONS

VALVE

Service: Compatible liquids and gases.

Body: 3-way.

Line Sizes: 1/2 to 2".

End Connections: Female NPT.

Pressure Limits: 28" Hg to 1000 psi (-0.7 to 69 bar) up to 250°F.

Wetted Materials: Body and ball: 316 SS (CF8M); Stem: 316 SS; Seat: RTFE/PTFE; Seal, washer, and packing: PTFE.

Temperature Limits: -20 to 392°F (-29 to 200°C).

Other Materials: O-ring: Fluoroelastomer; Handle: 304 SS; Washer: 301 SS; Stem nut, Locking device, Gland ring: 304 SS; Handle sleeve: PVC.

Agency Approvals: Meets the technical requirements of EU Directive 2011/65/ EU (RoHS II).

ACTUATORS

Pneumatic "DA" and "SR" Series

Type: DA series is double acting and SR series is spring return (rack and pinion).

Normal Supply Pressure: DA: 40 to 115 psi (2.7 to 7.9 bar); SR: 80 psi (5.5 bar).

Maximum Supply Pressure: 120 psi (8.6 bar).

Air Connections: DA01: 1/8" female NPT; DA02 to DA04: 1/4" female NPT; SR03 to SR07: 1/4" female NPT.

Housing Material: Anodized aluminum body and epoxy coated aluminum end caps.

Temperature Limits: -40 to 176°F (-40 to 80°C).

Accessory Mounting: NAMUR standard.

Electric "TD" and "MD" Series

Power Requirements: 110 VAC, 220 VAC, 24 VAC or 24 VDC (MD models not available in 24 VDC).

Power Consumption: See instruction manual.

Cycle Time (per 90°): TD01: 4 s; MD01: 10 s; TD02 and MD02: 20 s; TD03 and MD03: 30 s.

Duty Rating: 85%.

Enclosure Rating: NEMA 4X (IP67).

Housing Material: Powder coated aluminum.

Temperature Limits: -22 to 140°F (-30 to 60°C).

Electrical Connection: 1/2" female NPT.

Modulating Input: 4-20 mA.

Standard Features: Manual override, position indicator, and TD models come with two limit switches.

Electric "TI" and "MI" Series

Power Requirements: 110 VAC, 220 VAC, 24 VAC or 24 VDC.

Power Consumption: See instruction manual.

Cycle Time (per 90°): See instruction manual.

Duty Rating: See instruction manual.

Enclosure Rating: NEMA 7, designed to meet hazardous locations: Class I, Group C & D; Class II, Group E, F & G; Division I & II.

Housing Material: Powder coated aluminum.

Temperature Limits: -40 to 140°F (-40 to 60°C).

Electrical Connection: 1/2" female NPT.

Modulating Input: 4-20 mA.

Standard Features: Position indicator and two limit switches.

3-WAY NPT STAINLESS STEEL BALL VALVES

Full Port, Vented Ball, Electric or Pneumatic Actuators

| MODEL CHART | | | | | | |
|-------------|-----------------|-----------------------------------|--|--|--|--|
| Size | Cv (gal/min) | Popular Hand Operated Model | Popular Double Acting Pneumatic Model | Popular Spring Return Pneumatic Model | Popular NEMA 4X Two Position Electric (110 VAC) Model | Popular NEMA 4X Modulating Electric (110 VAC) Model |
| 1/2" | 11 | WE31-CHD00-T1 | WE31-CDA02-T2 | WE31-CSR02-T2 | WE31-CTD01-T2-A | WE31-CMD01-T2-A |
| 3/4" | 14 | WE31-DHD00-T1 | WE31-DDA02-T2 | WE31-DSR03-T2 | WE31-DTD01-T2-A | WE31-DMD01-T2-A |
| 1" | 18 | WE31-EHD00-T1 | WE31-EDA03-T2 | WE31-ESR04-T2 | WE31-ETD02-T2-A | WE31-EMD02-T2-A |
| 1-1/4" | 43 | WE31-FHD00-T1 | WE31-FDA03-T2 | WE31-FSR05-T2 | WE31-FTD02-T2-A | WE31-FMD02-T2-A |
| 1-1/2" | 84 | WE31-GHD00-T1 | WE31-GDA04-T2 | WE31-GSR06-T2 | WE31-GTD03-T2-A | WE31-GMD03-T2-A |
| 2" | 90 | WE31-HHD00-T1 | WE31-HDA04-T2 | WE31-HSR07-T2 | WE31-HTD03-T2-A | WE31-HMD03-T2-A |

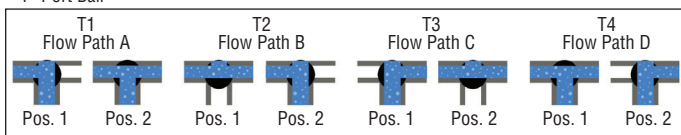
| MODEL CHART - HAND OPERATED & PNEUMATIC ACTUATOR | | | | | | |
|--|------|--|----------------------------|----------------------------|--|--|
| Example | WE31 | -CSR02 | -T1 | -A | A | 00 |
| Series | WE31 | | | | | 316 SS 3-way NPT |
| Size and Range | | CHD00 DHD00 EHD00 FHD00 GHD00 HHD00 CDA02 DDA02 EDA03 FDA03 GDA04 HDA04 CSR02 DSR03 ESR04 FSR05 GSR06 HSR07 | | | | 1/2" hand operated 3/4" hand operated 1" hand operated 1-1/4" hand operated 1-1/2" hand operated 2" hand operated 1/2" double acting 3/4" double acting 1" double acting 1-1/4" double acting 1-1/2" double acting 2" double acting 1/2" spring return 3/4" spring return 1" spring return 1-1/4" spring return 1-1/2" spring return 2" spring return |
| Valve Position | | | T1 T2 T3 T4 L1 | | | Flow path A Flow path B Flow path C Flow path D Flow path E |
| Solenoid | | | | N A | | No solenoid NEMA 4X NAMUR solenoid |
| Solenoid Voltage | | | | N A B C D E | | No solenoid 110 VAC 220 VAC 24 VAC 24 VDC 12 VDC |
| Positioner and Switches | | | | | 00 01 02 03 04 06 07 08 09 | None 42AD0 exp limit switch 45VD0 exp position transmitter 42AD0-B ATEX limit switch 42AD0-IE IECEX limit switch QV-210101 poly limit switch VPS and P1 prox switch 265ER-D5 positioner 285ER-D5 smart positioner |

| ACCESSORIES | |
|-------------|-----------------------------------|
| Model | Description |
| AFR4 | Air filter regulator 0 to 120 psi |
| VB-01 | Volume booster |

| MODEL CHART - ELECTRIC ACTUATOR | | | | | | |
|---------------------------------|------|--|----------------------------|------------------|--|--|
| Example | WE31 | -DMI02 | -T2 | -A | | WE31-DMI02-T2-A |
| Series | WE31 | | | | | 316 SS 3-way NPT |
| Size and Range | | CTD01 DTD01 ETD02 FTD02 GTD03 HTD03 CMD01 DMD01 EMD02 FMD02 GMD03 HMD03 CTI01 DTI02 ETI02 FTI04 GTI05 HTI06 CMI01 DMI02 EMI02 FMI04 GMI05 HMI06 | | | | 1/2" NEMA 4X two-position 3/4" NEMA 4X two-position 1" NEMA 4X two-position 1-1/4" NEMA 4X two-position 1-1/2" NEMA 4X two-position 2" NEMA 4X two-position 1/2" NEMA 4X modulating 3/4" NEMA 4X modulating 1" NEMA 4X modulating 1-1/4" NEMA 4X modulating 1-1/2" NEMA 4X modulating 2" NEMA 4X modulating 1/2" exp two-position 3/4" exp two-position 1" exp two-position 1-1/4" exp two-position 1-1/2" exp two-position 2" exp two-position 1/2" exp electric modulating 3/4" exp electric modulating 1" exp electric modulating 1-1/4" exp electric modulating 1-1/2" exp electric modulating 2" exp electric modulating |
| Valve Position | | | T1 T2 T3 T4 L1 | | | Flow path A Flow path B Flow path C Flow path D Flow path E |
| Actuator Voltage | | | | A B C D | | 110 VAC 220 VAC 24 VAC 24 VDC |

| REPAIR KIT | |
|------------------------------|-----------------------|
| Model | Valve Series and Size |
| VRK-36 | WE31-1/2" |
| VRK-37 | WE31-3/4" |
| VRK-38 | WE31-1" |
| VRK-40 | WE31-1-1/2" |
| VRK-41 | WE31-2" |
| Parts List - Included in Kit | |
| 1 PTFE thrust washer | |
| 1 FKM O-ring | |
| 2 PTFE stem packing | |
| 2 PTFE seals | |
| 2 RTFE seats | |

"T" Port Ball



"L" Port Ball

