

3-PIECE SOCKET WELD STAINLESS STEEL BALL VALVE

Full Port, Vented Ball, Electric or Pneumatic Actuators



WE05-EHD00



WE05-FDA02



WE05-DDA01-AA01



WE05-JTD03-A



WE05-ITI05-B



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The **SERIES WE05** offers the best possible design for socket weld ball valves. The swing out body feature and seat arrangement allow for trouble-free welding installation. The Series WE05 incorporates a full port 3-piece SS ball valve for ideal 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 directly mounted creating a compact assembly for tight spaces. Limit switches can be mounted directly to the valves, allowing for remote position indication. The Series WE05 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 modulating control. Two-position actuators use the supply voltage to drive the valve open or close, while the modulating actuator accepts a 4 to 20 mA input for valve positioning. Actuators feature thermal overload protection and a 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 SV3 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

- Socket weld ends
- Capable of being configured to fit any application
- Limit switches can be mounted to manual valves for remote monitoring

SPECIFICATIONS

VALVE

Service: Compatible liquids and gases.

Body: 3-piece.

Line Sizes: 1/2 to 3".

End Connections: Socket weld.

Pressure Limits: 20" 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.

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 DA05: 1/4" female NPT; SR02 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 to 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 to 20 mA.

Standard Features: Position indicator and two limit switches.

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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"	36.64	WE05-CHD00	WE05-CDA01	WE05-CSR02	WE05-CTD01-A	WE05-CMD01-A
3/4"	67.69	WE05-DHD00	WE05-DDA01	WE05-DSR02	WE05-DTD01-A	WE05-DMD01-A
1"	110.27	WE05-EHD00	WE05-EDA02	WE05-ESR03	WE05-ETD01-A	WE05-EMD01-A
1-1/4"	184.73	WE05-FHD00	WE05-FDA02	WE05-FSR03	WE05-FTD01-A	WE05-FMD01-A
1-1/2"	266.62	WE05-GHD00	WE05-GDA03	WE05-GSR04	WE05-GTD02-A	WE05-GMD01-A
2"	485.3	WE05-HHD00	WE05-HDA03	WE05-HSR05	WE05-HTD02-A	WE05-HMD02-A
2-1/2"	791.57	WE05-IHD00	WE05-IDA04	WE05-ISR07	WE05-ITD03-A	WE05-IMD03-A
3"	1151.95	WE05-JHD00	WE05-JDA05	WE05-JSR07	WE05-JTD03-A	WE05-JMD03-A

MODEL CHART - HAND OPERATED & PNEUMATIC ACTUATOR						
Example	WE05	-CSR02	-N	N	09	WE05-CSR02-NN09
Series	WE05					316 SS 3-piece socket weld
Size and Actuator		CHD00 DHD00 EHD00 FHD00 GHD00 HHD00 IHD00 JHD00 CDA01 DDA01 EDA02 FDA02 GDA03 HDA03 IDA04 JDA05 CSR02 DSR02 ESR03 FSR03 GSR04 HSR05 ISR07 JSR07				1/2" hand operated 3/4" hand operated 1" hand operated 1-1/4" hand operated 1-1/2" hand operated 2" hand operated 2-1/2" hand operated 3" 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 2-1/2" double acting 3" 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 2-1/2" spring return 3" spring return
Solenoid			N A			No solenoid NEMA 4X
Solenoid Voltage				N A B C D E		No solenoid 120 VAC 220 VAC 24 VAC 24 VDC 12 VDC
Positioner and Switches					00 01 02 03 04 05 06 07 08 09	None 42AD0 exp limit switch 45VD0 exp position transmitter 42AD0-B ATEX limit switch 42AD0-IE IECEX limit switch VPI-M01 NEMA 4X limit switch QV-210101 poly limit switch VPS and P1 prox switch 265ER-D5 positioner 285ER-D5 smart positioner
Options					NO	Fail open spring return actuator

MODEL CHART - ELECTRIC ACTUATOR				
Example	WE05	-ETD01	-B	WE05-ETD01-B
Series	WE05			316 SS 3-piece socket weld
Size and Actuator		CTD01 DTD01 ETD01 FTD01 GTD02 HTD02 ITD03 JTD03 CMD01 DMD01 EMD01 FMD01 GMD01 HMD02 IMD03 JMD03 CTI01 DTI01 ETI02 FTI02 GTI03 HTI04 ITI05 JTI05 CMI01 DMI01 EMI02 FMI02 GMI03 HMI04 IMI05 JMI05		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 2-1/2" NEMA 4X two-position 3" 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 2-1/2" NEMA 4X modulating 3" 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 2-1/2" exp two-position 3" 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 2-1/2" exp electric modulating 3" exp electric modulating
Actuator Voltage			A B C D	110 VAC 220 VAC 24 VAC 24 VDC

ACCESSORIES	
Model	Description
R2-2120	Air regulator
AFR2-2	Instrument air filter regulator
VB-01	Volume booster