Dwyer

3-PIECE TRI-CLAMP STAINLESS STEEL BALL VALVES Cavity Filled, Full Port, Electric or Pneumatic Actuators



WE03-DHD00





WE03-DDA01-AA07



WF03-DDA01-AA06

WE03-DTD01-A



WF03-DDA01



The Series WE03 3-Piece Tri-Clamp Stainless Steel Ball Valves incorporate a full port 3-piece tri-clamp SS ball 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 WE03 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
- · Cavity filled valve for sanitary applications
- 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
- · Designed for food and beverage applications

SPECIFICATIONS

VALVE

Service: Compatible liquids and gases.

Body: 3-piece.

Line Sizes: 1/2 to 2"

End Connections: Tri-clamp ends.

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: 1/4" female NPT: SR02 to

SR04: 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

Cycle Time (per 90°): TD01: 4 s; MD01:

10 s; TD02 and MD02: 20 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

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MODEL CHART							
		Popular	Popular Double	Popular Spring	Popular NEMA 4X	Popular NEMA 4X	
	Cv	Hand Operated	Acting Pneumatic	Return Pneumatic	Two Position Electric	Modulating Electric	
Size	(gal/min)	Model	Model	Model	(110 VAC) Model	(110 VAC) Model	
1/2"	14.39	WE03-CHD00	WE03-CDA01	WE03-CSR02	WE03-CTD01-A	WE03-CMD01-A	
3/4"	42.25	WE03-DHD00	WE03-DDA01	WE03-DSR02	WE03-DTD01-A	WE03-DMD01-A	
1″	86.17	WE03-EHD00	WE03-EDA02	WE03-ESR03	WE03-ETD01-A	WE03-EMD01-A	
1-1/2"	223.61	WE03-GHD00	WE03-GDA02	WE03-GSR04	WE03-GTD01-A	WE03-GMD01-A	
2″	437.98	WE03-HHD00	WE03-HDA02	WE03-HSR04	WE03-HTD02-A	WE03-HMD02-A	

MODEL CHART - HAND OPERATED & PNEUMATIC ACTUATOR							
Example	WE03				06	I	WE03-EDA02-AA06
Series	WE03			-			316 SS 3-piece tri-clamp
Size and		CHD00					1/2" hand operated
Actuator		DHD00					3/4" hand operated
		EHD00					1" hand operated
		GHD00					1-1/2" hand operated
		HHD00					2" hand operated
		CDA01					1/2" double acting
		DDA01					3/4" double acting
		EDA02					1" double acting
		GDA02					1-1/2" double acting
		HDA02					2" double acting
		CSR02					1/2" spring return
		DSR02					3/4" spring return
		ESR03					1" spring return
		GSR04					1-1/2" spring return
		HSR04					2" spring return
Solenoid			N				No solenoid
			Α				NEMA 4X NAMUR solenoid
Solenoid				N			No solenoid
Voltage				Α			110 VAC
				В			220 VAC
				С			24 VAC
				D			24 VDC
D				Е	00		12 VDC
Positioner					00		None
and Switches					01		42AD0 exp limit switch
Switches					02		45VD0 exp position transmitter 42AD0-B ATEX limit switch
					03		42AD0-BATEA IIIIII SWIICH
					06		QV-210101 poly limit switch
					07		VPS and P1 prox switch
					08		265ER-D5 positioner
					09		285ER-D5 smart positioner
Options					00	NO	Fail open spring return actuator

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

MODEL CHART - ELECTRIC ACTUATOR				
Example		-CMD01		WE03-CMD01-A
Series	WE03			316 SS 3-piece tri-clamp
Size and		CTD01		1/2" NEMA 4X two-position
Actuator		DTD01		3/4" NEMA 4X two-position
		ETD01		1" NEMA 4X two-position
		GTD01		1-1/2" NEMA 4X two-position
		HTD02		2" NEMA 4X two-position
		CMD01		1/2" NEMA 4X modulating
		DMD01		3/4" NEMA 4X modulating
		EMD01		1" NEMA 4X modulating
		GMD01		1-1/2" NEMA 4X modulating
		HMD02		2" NEMA 4X modulating
		CTI01		1/2" exp two-position
		DTI01		3/4" exp two-position
		ETI02		1" exp two-position
		GTI02		1-1/2" exp two-position
		HTI02		2" exp two-position
		CMI01		1/2" exp electric modulating
		DMI01		3/4" exp electric modulating
		EMI02		1" exp electric modulating
		GMI02		1-1/2" exp electric modulating
		HMI02		2" exp electric modulating
Actuator			Α	110 VAC
Voltage			В	220 VAC
			С	24 VAC
			D	24 VDC

VRK-19 WE03-1/2"				
VRK-20 WE03-3/4"				
VRK-21 WE03-1"				
WE03-1-1/2"				
VRK-23 WE03-2"				
Parts List - Included in Kit				
1 PTFE thrust washer				
1 FKM O-ring				
2 PTFE stem packing				
2 PTFE seats				

Model Valve Series and Size

REPAIR KIT