

BUTTERFLY VALVES

Lug or Wafer, EPDM or PTFE, Electric or Pneumatic Actuators



WE20-CHD00-LE



WE20-EDA06-LE



WE20-ETD04-LE-A



WE20-CDA04-WP-AA07



WE20-CDA04-WP-NN08



The **Series WE20 Butterfly Valves** are offered in lug or wafer body styles and is equipped with a PTFE or EPDM liner. The most critical aspect of the Series WE20 Butterfly Valves is the cartridge seat design, which alleviates installation problems associated with common "dove tail design" seats. Valve torques are lower and more consistent as the seat dynamics are not dependent on being coupled between two flanges. Precision machining of the disc and body allow the cartridge design to maintain a tighter disc to seat tolerance, providing a perfect low torque seal each and every time the valve is cycled. The seat to disc seal is independent of flange support and capable of full rated dead end service.

Actuators are directly 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 WE20 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 to 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.

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FEATURES/BENEFITS

- Machined flats attach disc/stem - no pins
- Phenolic backed cartridge seat design for extended service and ease of replacement
- Extended neck for insulation - no fabricated extensions required
- Capable of being configured to fit any application
- Limit switches can be mounted to manual valves for remote monitoring
- Available with a variety of electric and pneumatic actuators

APPLICATIONS

- Gas or liquid flow control

SPECIFICATIONS

VALVE

Service: Compatible liquids, gases, and steam.

Body: 2-way, wafer or lug butterfly.

Line Sizes: 2 to 12".

End Connections: Lug and wafer pattern designed for flanges that are ANSI Class 125 (B16.1) and ANSI Class 150 (B16.5) dimension.

Pressure Limits: 225 psi (15.5 bar).

Wetted Materials: Body Material: Ductile iron; Disc: 316 SS; Seat: EPDM or PTFE; O-ring: EPDM; Stem: 410 SS.

Temperature Limits: Disc: EPDM: -50 to 250°F (-46 to 121°C); PTFE: 0 to 300°F (-18 to 149°C).

Bearings: Nylatron.

Operator: 2 to 6" 10-position locking hand lever; 8 to 12": manual gear.

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: 70 to 115 psi (4.8 to 7.9 bar).

Maximum Supply Pressure: 120 psi (8.6 bar).

Air Connections: DA03 thru DA11: 1/4" FNPT; SR03 thru SR11: 1/4" FNPT.

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 or 24 VAC.

Power Consumption: See instruction manual.

Cycle Time (per 90°): TD01 and MD01: 4 s; TD02 and MD02: 20 s; TD03 and MD03: 30 s; TD04 and MD04: 30 s; TD05 and MD05: 30 s; TD06 and MD06: 45 s; TD07 and MD07: 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 "TH and MH 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: -22 to 140°F (-30 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											
Size	Cv (gal/min)	Popular Hand Operated Model	Price	Popular Double Acting Pneumatic Model	Price	Popular Spring Return Pneumatic Model	Price	NEMA 4X Two-Position Electric (110 VAC) Model	Price	NEMA 4X Modulating Electric (110 VAC) Model	Price
2"	135	WE20-AHD00-WE	\$109.00 [Ⓟ]	WE20-ADA03-WE	\$252.00 [Ⓟ]	WE20-ASR04-WE	\$291.00 [Ⓟ]	WE20-ATD02-WE-A	\$623.00 [Ⓟ]	WE20-AMD02-WE-A	\$1130.00 [Ⓟ]
2-1/2"	220	WE20-BHD00-WE	123.00 [Ⓟ]	WE20-BDA03-WE	270.00 [Ⓟ]	WE20-BSR04-WE	309.00 [Ⓟ]	WE20-BTD02-WE-A	641.00 [Ⓟ]	WE20-BMD02-WE-A	1152.00 [Ⓟ]
3"	302	WE20-CHD00-WE	137.00 [Ⓟ]	WE20-CDA04-WE	309.00 [Ⓟ]	WE20-CSR06-WE	384.00 [Ⓟ]	WE20-CTD02-WE-A	660.00 [Ⓟ]	WE20-CMD02-WE-A	1167.00 [Ⓟ]
4"	600	WE20-DHD00-WE	183.00 [Ⓟ]	WE20-DDA05-WE	385.00 [Ⓟ]	WE20-DSR07-WE	474.00 [Ⓟ]	WE20-DTD03-WE-A	989.00 [Ⓟ]	WE20-DMD03-WE-A	1593.00 [Ⓟ]
5"	1022	WE20-EHD00-WE	229.00 [Ⓟ]	WE20-EDA06-WE	485.00 [Ⓟ]	WE20-ESR08-WE	637.00 [Ⓟ]	WE20-ETD04-WE-A	1253.00 [Ⓟ]	WE20-EMD04-WE-A	1858.00 [Ⓟ]
6"	1579	WE20-FHD00-WE	287.00 [Ⓟ]	WE20-FDA07-WE	586.00 [Ⓟ]	WE20-FSR09-WE	943.00 [Ⓟ]	WE20-FTD04-WE-A	1324.00 [Ⓟ]	WE20-FMD04-WE-A	1930.00 [Ⓟ]
8"	3136	WE20-GHD00-WE	706.00 [Ⓟ]	WE20-GDA08-WE	1024.00 [Ⓟ]	WE20-GSR10-WE	1465.00 [Ⓟ]	WE20-GTD05-WE-A	1842.00 [Ⓟ]	WE20-GMD05-WE-A	2510.00 [Ⓟ]
10"	5340	WE20-HHD00-WE	972.00 [Ⓟ]	WE20-HDA09-WE	1507.00 [Ⓟ]	WE20-HSR11-WE	2351.00 [Ⓟ]	WE20-HTD06-WE-A	2563.00 [Ⓟ]	WE20-HMD06-WE-A	3260.00 [Ⓟ]
12"	8250	WE20-IHD00-WE	1419.00 [Ⓟ]	WE20-IDA11-WE	2016.00 [Ⓟ]	WE20-ISR11-WE	2447.00 [Ⓟ]	WE20-ITD07-WE-A	2814.00 [Ⓟ]	WE20-IMD07-WE-A	3382.00 [Ⓟ]

Ⓟ Items are subject to Schedule B discounts.

MODEL CHART - HAND OPERATED & PNEUMATIC ACTUATOR								
Example	WE20	-BSR04	-WE	-A	A	00	Price	
Series	WE20						Butterfly valve -	
Size and Actuator	AHD00						2" hand operated \$109.00 [Ⓟ]	
	BHD00						2-1/2" hand operated 123.00 [Ⓟ]	
	CHD00						3" hand operated 137.00 [Ⓟ]	
	DHD00						4" hand operated 183.00 [Ⓟ]	
	EHD00						5" hand operated 229.00 [Ⓟ]	
	FHD00						6" hand operated 287.00 [Ⓟ]	
	GHD00						8" hand operated 706.00 [Ⓟ]	
	HHD00						10" hand operated 972.00 [Ⓟ]	
	IHD00						12" hand operated 1419.00 [Ⓟ]	
	ADA03						2" double acting 252.00 [Ⓟ]	
	BDA03						2-1/2" double acting 270.00 [Ⓟ]	
	CDA04						3" double acting 309.00 [Ⓟ]	
	DDA05						4" double acting 385.00 [Ⓟ]	
	EDA06						5" double acting 485.00 [Ⓟ]	
	FDA07						6" double acting 586.00 [Ⓟ]	
	GDA08						8" double acting 1024.00 [Ⓟ]	
	HDA09						10" double acting 1507.00 [Ⓟ]	
	IDA11						12" double acting 2016.00 [Ⓟ]	
	Body Type /Liner	ASR04						2" spring return 291.00 [Ⓟ]
		BSR04						2-1/2" spring return 309.00 [Ⓟ]
CSR06							3" spring return 384.00 [Ⓟ]	
DSR07							4" spring return 474.00 [Ⓟ]	
ESR08							5" spring return 637.00 [Ⓟ]	
FSR09							6" spring return 943.00 [Ⓟ]	
GSR10							8" spring return 1465.00 [Ⓟ]	
HSR11							10" spring return 2351.00 [Ⓟ]	
ISR11							12" spring return 2447.00 [Ⓟ]	
Solenoid				WE				Wafer-EPDM -
			WP				Wafer-PTFE +53.50 [Ⓟ]	
			LE				Lug-EPDM +8.60 [Ⓟ]	
			LP				Lug-PTFE +62.00 [Ⓟ]	
Solenoid Voltage				N			No solenoid -	
				A			NEMA 4X NAMUR solenoid +53.50 [Ⓟ]	
				B			No solenoid 120 VAC -	
				C			220 VAC -	
				D			24 VAC -	
Positioner and Switches					00		None -	
					01		42AD0 exp limit switch +245.00 [Ⓟ]	
					02		45VD0 exp position transmitter +558.00 [Ⓟ]	
					03		42AD0-B ATEX limit switch +343.00 [Ⓟ]	
					04		42AD0-IE IECEx limit switch +340.00 [Ⓟ]	
					06		QV-210101 poly limit switch +153.00 [Ⓟ]	
					07		VPS and P1 prox switch +219.00 [Ⓟ]	
					08		265ER-D5 positioner +679.00 [Ⓟ]	
					09		285ER-D5 smart positioner +1592.00 [Ⓟ]	
	Options					NO	Fail open spring return actuator -	

Ⓟ Items are subject to Schedule B discounts.

MODEL CHART - ELECTRIC ACTUATOR					
Example	WE20	-DMH05	-WE	-A	Price
Series	WE20				Butterfly valve -
Size and Actuator	ATD02				2" NEMA 4X two-position \$623.00 [Ⓟ]
	BTD02				2-1/2" NEMA 4X two-position 641.00 [Ⓟ]
	CTD02				3" NEMA 4X two-position 660.00 [Ⓟ]
	DTD03				4" NEMA 4X two-position 989.00 [Ⓟ]
	ETD04				5" NEMA 4X two-position 1253.00 [Ⓟ]
	FTD04				6" NEMA 4X two-position 1324.00 [Ⓟ]
	GTD05				8" NEMA 4X two-position 1842.00 [Ⓟ]
	HTD06				10" NEMA 4X two-position 2563.00 [Ⓟ]
	ITD07				12" NEMA 4X two-position 2814.00 [Ⓟ]
	AMD02				2" NEMA 4X modulating 1130.00 [Ⓟ]
	BMD02				2-1/2" NEMA 4X modulating 1152.00 [Ⓟ]
	CMD02				3" NEMA 4X modulating 1167.00 [Ⓟ]
	DMD03				4" NEMA 4X modulating 1593.00 [Ⓟ]
	EMD04				5" NEMA 4X modulating 1858.00 [Ⓟ]
	FMD04				6" NEMA 4X modulating 1930.00 [Ⓟ]
	GMD05				8" NEMA 4X modulating 2510.00 [Ⓟ]
	HMD06				10" NEMA 4X modulating 3260.00 [Ⓟ]
	IMD07				12" NEMA 4X modulating 3382.00 [Ⓟ]
	ATH03				2" exp two-position 623.00 [Ⓟ]
	BTH03				2-1/2" exp two-position 641.00 [Ⓟ]
	CTH05				3" exp two-position 2635.00 [Ⓟ]
	DTH05				4" exp two-position 2696.00 [Ⓟ]
	ETH06				5" exp two-position 3031.00 [Ⓟ]
	FTH08				6" exp two-position 3328.00 [Ⓟ]
	GTH09				8" exp two-position 3843.00 [Ⓟ]
	HTH10				10" exp two-position 5914.00 [Ⓟ]
	ITH11				12" exp two-position 6575.00 [Ⓟ]
Material/Liner	AMH03				2" exp electric modulating 1130.00 [Ⓟ]
	BMH03				2-1/2" exp electric modulating 1152.00 [Ⓟ]
	CMH05				3" exp electric modulating 3912.00 [Ⓟ]
	DMH05				4" exp electric modulating 3974.00 [Ⓟ]
	EMH06				5" exp electric modulating 4308.00 [Ⓟ]
	FMH08				6" exp electric modulating 4330.00 [Ⓟ]
	GMH09				8" exp electric modulating 4865.00 [Ⓟ]
	HMH10				10" exp electric modulating 7025.00 [Ⓟ]
	IMH11				12" exp electric modulating 7901.00 [Ⓟ]
	Actuator Voltage			WE	
			WP		Wafer-PTFE +53.50 [Ⓟ]
			LE		Lug-EPDM +8.60 [Ⓟ]
			LP		Lug-PTFE +62.00 [Ⓟ]
Actuator Voltage				A	110 VAC -
				B	220 VAC -
				C	24 VAC +75.00 [Ⓟ]
				D	24 VDC +75.00 [Ⓟ]

Ⓟ Items are subject to Schedule B discounts.

ACCESSORIES		
Model	Description	Price
AFR4	Air filter regulator 0 to 120 psi	\$72.00 [Ⓟ]
VB-01	Volume booster	182.00 [Ⓟ]

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