

Bulletin  
783.05-3NE  
January 2016

# NOR'EAST™

## CONTROLS



## THREE WAY VALVES - MIXING

### SERIES 8300 MODEL 8305



Previously manufactured by  
Dezurik® and Honeywell®

## Description:

Nor'East Series 8300 3-Way Brass globe valves are designed for light duty, mixing applications. These valves are available in 1/2 through 2-inch sizes screwed ends. The spring-type pneumatic diaphragm actuator is available as either direct or reverse action as specified. Figure 1 shows the flow direction in mixing applications.

## Accessories:

- Top-mounted handwheel (direct-acting actuator)
- Side-mounted positioners
- Micro Switch precision switches
- Solenoids
- Air sets

## Actuator

<b>Type</b>	Pneumatic, diaphragm-actuated type 05. Direct or reverse acting.
<b>Construction</b>	Cast aluminum diaphragm cases and yoke.
<b>Diaphragm Material</b>	Molded of flexible Neoprene and convoluted to retain a constant effective area through the total stroke. Ambient temperature range of -29° to 71°C (-21° to -160°F).
<b>Effective Diaphragm Material</b>	Direct acting: 40 in <sup>2</sup> (258 cm <sup>2</sup> ) Reverse acting: 38 in <sup>2</sup> (245 cm <sup>2</sup> )
<b>Actuator Stem</b>	Zinc-plated steel.
<b>Spring</b>	Totally enclosed and corrosion resistant. Ranges: 3 to 15 psig standard. (For other ranges, see Table 2)
<b>Air Pressure (Air-to-diaphragm)</b>	Normal: 18 or 26 psig (124 or 172 kPa). Maximum: 35 psig (241 kPa) for reverse acting, 50 psig (345 kPa) for direct acting.
<b>Air Connections</b>	1/4" NPT.

## Body

<b>Type</b>	Three-way, globe-type body for mixing service.
<b>Material</b>	Brass
<b>Sizes</b>	Screwed end: 1/2, 3/4, 1, 1 1/4, 1 1/2 and 2 inch.
<b>Ratings</b>	150 psi

## Bonnet

<b>Type</b>	Plain: For process temperatures between 40° and 250°F (4.4 and 121°C)
<b>Packing</b>	Spring-loaded, carbon fiber reinforced PTFE V-rings.

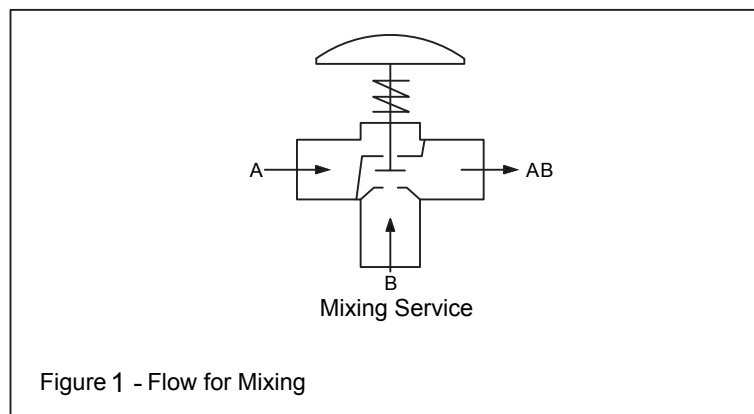
## Trim

<b>Material</b>	Brass
<b>Plug</b>	Linear contour plug stem-guided for throttling or two position (on-off) control.
<b>Valve Travel</b>	3/4 inch (19mm).
<b>Leakage</b>	Maximum allowable leakage under factory testing is 0.01% of rated Cv.
<b>Sizing Data</b>	(see Tables 1 and 2)
<b>Dimensions</b>	(see Table 3 and Figure 2)

## ORDERING DATA

### Please Specify:

- Valve Model 8305
- Size
- Spring Range
- Air-to-Open or Air-to-Close
- Accessories



**Table 1 - Flow Coefficient Cv**

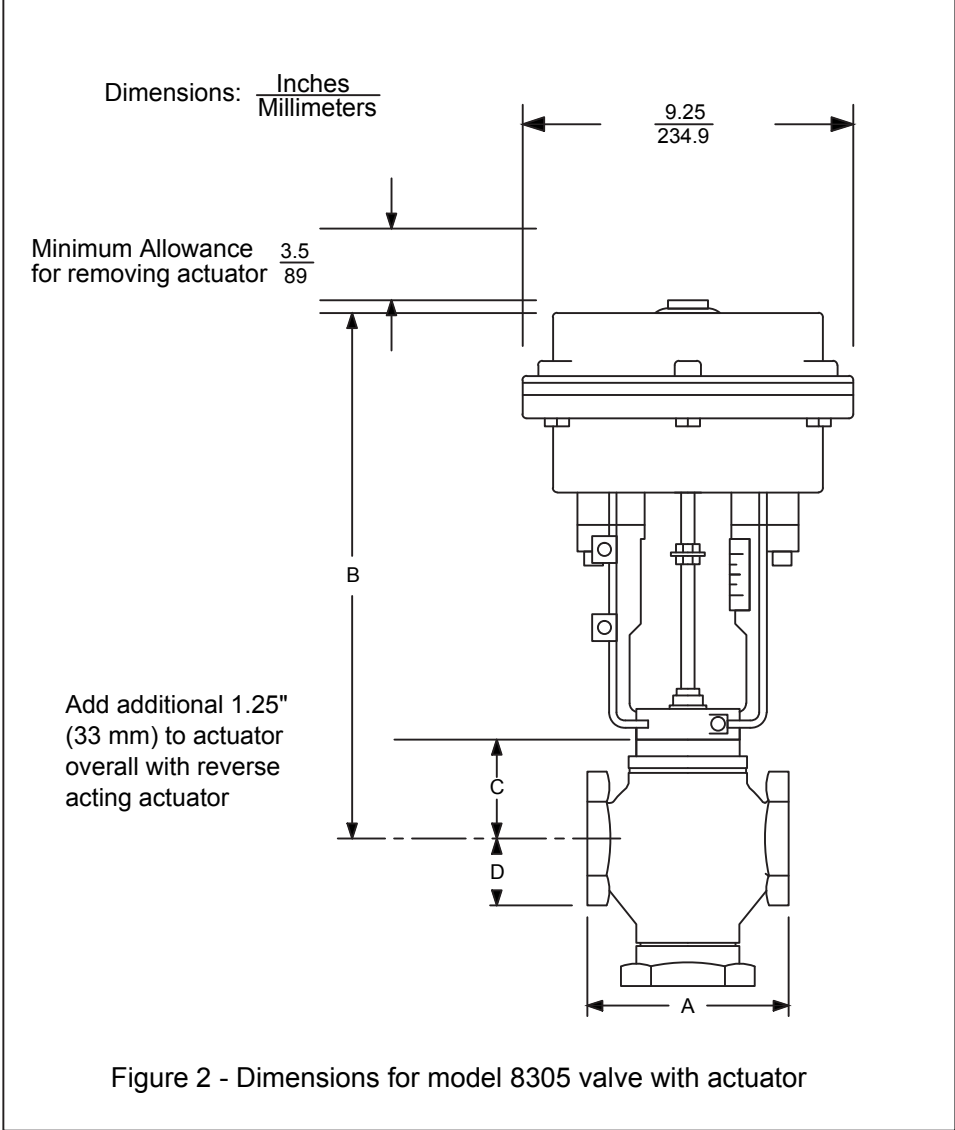
Plug	Nominal Valve Size (inches)					
	1/2	3/4	1	1 1/4	1 1/2	2
Linear Contour	4.7	7.3	11.7	18.7	29.3	46.3

**Table 2 - Maximum Pressure Differentials in Closed Positions**

Service	Control	Air Supply Psig	Spring Range Psig	Valve Size (inches)					
				1/2	3/4	1	1 1/4	1 1/2	2
Mixing	Throttling or On-Off	18	3 - 15, 3 - 9, 9 - 15	50	50	50	50	35	15
		25	3 - 15, 3 - 9	50	50	50	50	35	15
			9 - 15	50	50	50	50	50	50

**Table 3 - Dimensions**

Valve Size	A	B	C	D
1/2	3-1/4" (83mm)	12-7/8" (327mm)	1-9/16" (39.7mm)	2-9/16" (65mm)
3/4	3-1/4" (83mm)	12-7/8" (327mm)	1-9/16" (39.7mm)	2-9/16" (65mm)
1	4-1/16" (103mm)	12-7/8" (327mm)	1-9/16" (39.7mm)	2-5/8" (66.5mm)
1 1/4	4-3/16" (106mm)	12-7/8" (327mm)	1-9/16" (39.7mm)	2-7/8" (72.5mm)
1 1/2	4-3/4" (120mm)	13-1/8" (333mm)	1-13/16" (46.5mm)	3" (77mm)
2	5-1/4" (134mm)	13-1/8" (333mm)	1-13/16" (46.5mm)	3-5/16" (83.5mm)



**NOTES:**

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