



CONTROL
VALVE
85-3 WAY
SERIES



Features

Characteristic

Three-way globe control valve with loose flanges, for diverging or converging service.

Available Types

85-30 (Figure 1)

For throttling or on-off diverging service.
One inlet and two outlets.

85-40 (Figure 2)

For throttling or on-off converging service.
Two inlets and one outlet.

Sizes

1, 1.5, 2, 3, and 4 in.

End Connections

FR - Raised Face.

Pressure-Temperature Ratings

ANSI B16.34 Class 150, 300 or 600.

Body Materials

ASTM A 216 Gr. WCB carbon steel or
ASTM A 351 Gr. CF8 or CF8M stainless steel.

Bonnet Types

CE1 - Standard
CE3 - Extended, for very high or very low temperature.
CE4 - Extended with bellows seal.

Trim Materials

See table 1 for standard materials.
Other materials are available on application.

Packing Materials

See table 2.

Flow Characteristic

Linear.

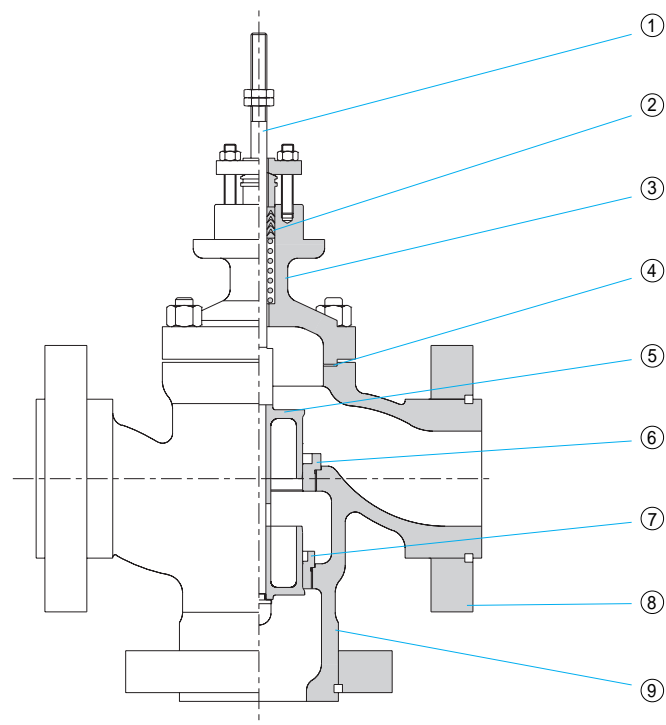
Flow Coefficient - Cv

See table 3.

Shutoff Classification (ANSI/FCI 70-2)

Leakage class III (0.1% Cv max.).

Main parts identification



- | | | |
|-----------|-----------------|--------------|
| ① Stem | ④ Bonnet Gasket | ⑦ Lower Seat |
| ② Packing | ⑤ Plug | ⑧ Flange |
| ③ Bonnet | ⑥ Upper Seat | ⑨ Body |

PLUG	SEAT	MAX. ΔP (psig)	TEMPERATURE RANGE (°F)
304 stainless steel	304 stainless steel	300	-20 to 600
316 stainless steel	316 stainless steel		
304 stainless steel with Stellite	304 stainless steel with Stellite	1450	-150 to 100
316 stainless steel with Stellite	316 stainless steel with Stellite	1400	101 to 200
		1350	201 to 300
420 stainless steel hardened	420 stainless steel hardened	1450	-20 to 100
		1400	101 to 200
		1350	201 to 300
		1300	301 to 400
		1050	401 to 500
		800	501 to 600
		500	601 to 700
300	701 to 800		

Table 1
Trim materials

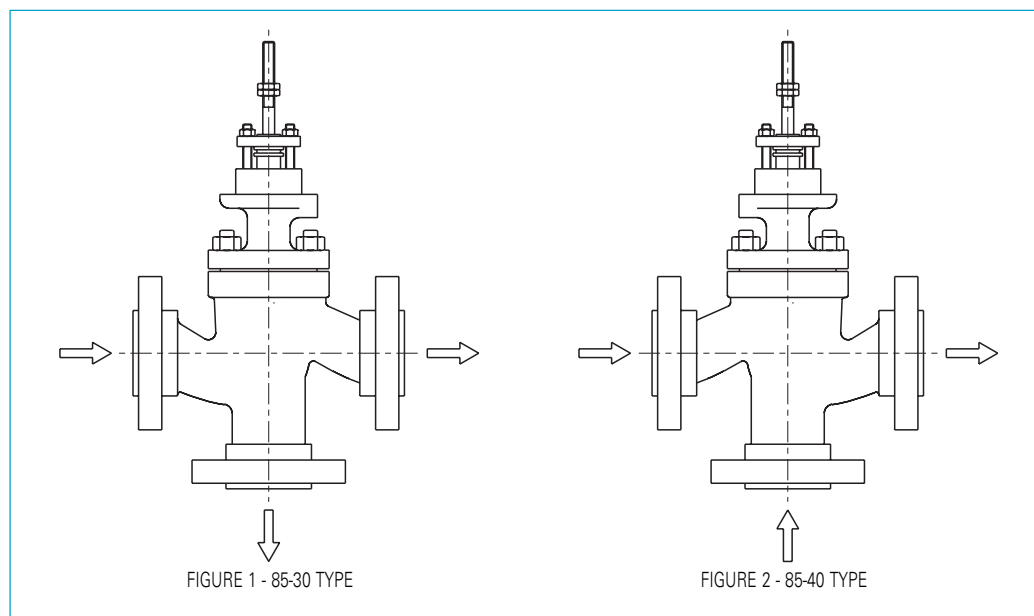
MATERIAL	TEMPERATURE RANGE (°F)	
	STANDARD BONNET	EXTENDED BONNET
PTFE "V" rings	-22 to 450	-150 to 800
Braided PTFE		
Graphite	-22 to 700	-94 to 2000
Asbestos with PTFE ⁽¹⁾	-22 to 450	-150 to 800

Table 2
Packing materials

(1) Used only in case of no restrictions to asbestos.

BODY SIZE (in.)	PORT SIZE (in.)	STROKE (in.)	LINEAR CHARACTERISTIC
1	1.25	.75	11
1.5	1.313	.75	27
2	1.75	1.125	45
3	2.75	1.5	100
4	3.75	2	180

Table 3
Flow coefficient - Cv



Flow directions

Actuators

The **3 way 85 Series** control valve is normally operated by diaphragm/spring pneumatic actuator (DC series) or by double action or spring return pneumatic piston actuator (PP series).

Can also be supplied with electric actuator. Detailed information about actuators are given in specific bulletins.

Dimensions

BODY SIZE (in.)	DIMENSIONS		
	A	B	C
1	216	108	145
1.5	241	121	135
2	292	146	159
3	356	178	190
4	432	216	205



HITER

HITER IND. E COM. CONTR. TERMO-HIDR. LTDA.
 Rua Capitão Francisco Teixeira Nogueira, 233
 CEP 05037-030 - Água Branca - São Paulo - Brasil
 Phone.: +55 11 3611.0788
 Fax: +55 11 3611.0921/3611.1711
 e-mail: vendas@hiter.com.br - www.hiter.com.br

Representative

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