

TLV[®]

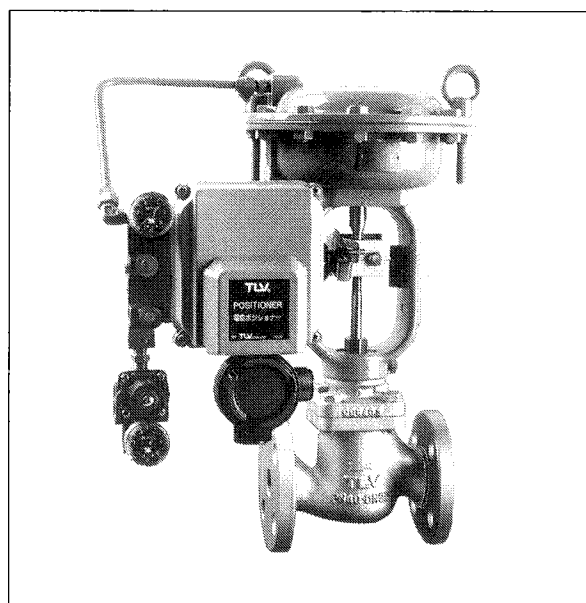
PNEUMATIC CONTROL VALVE

MODEL CV16 WITH POSITIONER

Features

Pneumatic control valve in two port form with electro-pneumatic positioner, for steam, gases and liquids.

1. Valve seat and plug made of highly abrasion resistant stainless steel.
2. Low leak rate and stable flow characteristics.
3. Parabolic plug for linear, or equal percentage flow control.
4. Diaphragm actuator available for either fail-open or fail-close actuation.¹⁾
5. Precision spindle guide with maintenance-free O-ring sealing and stuffing box packing.
6. With explosion proof TLV positioner XE11.²⁾
7. Assembly of TLV digital controllers SC-S20, SC-H50, SC-F50, or other controllers and accessories possible.
8. Maintenance-free double O-ring yoke sealing (fail-close type).

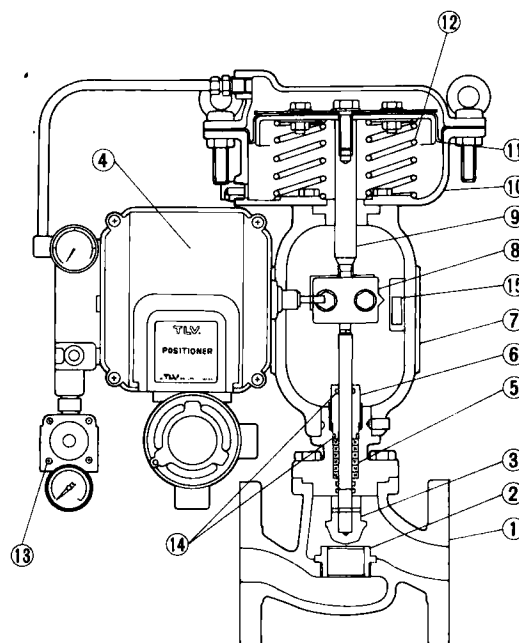


Specifications

Model	CV16			
Connection	Flanged			
Size (mm)	15 - 50			
Max. Operating Pressure (kg/cm ² G)	16			
Max. Operating Temperature (°C)	200			
Leak Rate	< 0.01% of Cv			
Positioning Ratio	50 : 1			
Control Air Pressure (fail-close type)	Size	15 - 25	32, 40	50
	kg/cm ² G	3 - 7	4 - 7	4.7 - 7
Control Air Pressure (fail-open type)	Size	15 - 50		
	kg/cm ² G	4 - 7		
Air Connection	1/4" PT			

No.	Description	Material	JIS	ASTM/AISI ³⁾
①	Body & Bonnet	Cast Iron	FC25	ASTM A48 Cl. 40
②	Valve Seat	Stainless Steel	SUS304	AISI 304
③	Valve Plug	Stainless Steel	SUS304	AISI 304
④	Positioner	-	-	-
⑤	Stem Packing	Graphite/Aluminum	-	-
⑥	Stem Guide	Stainless Steel	SUS303	AISI 303
⑦	Yoke	Cast Iron	FC25	ASTM A48 Gr. 35
⑧	Stem Connector	Cast Iron	FCV42	ASTM A482 Gr. 400
⑨	Stem	Stainless Steel	SUS303	AISI 303
⑩	Diaphragm Case	Cast Aluminum	AC4C	ASTM SG70A
⑪	Diaphragm	Nitrile Rubber	-	ASTM D2000 BF
⑫	Coil Spring	Spring Steel	SWOSC-V	ASTM A401M-87
⑬	Air Regulator ⁴⁾	-	-	-
⑭	O-Ring Seal	Viton Rubber	-	ASTM D2000 BF
⑮	Stroke Indicator	Stainless Steel	SUS304	AISI 304
⑯	Yoke Seal ⁵⁾	Brass	BsBM	ASTM B16 C3600

1) Pictures show fail-open type. 2) Also available without positioner. 3) Equivalent. 4) Optional. 5) Only fail-close type.



Positioner Specifications

Motive Medium	Air, oil-free, filtered, 5 μ
Acting Mode	Single acting
Electric Input Signal	4 ~ 20 mA DC
Input Signal Resistance	Max. 250 Ω
Output Pressure	3 ~ 7 kg/cm ² G
Air Intake Connection	PT 1/4 (Option: NPT)
Press. Gauge Connections	PT 1/8 (Option: NPT)
Pressure Gauge Measuring Range	0 ~ 10 kgf/cm ² (Option: psi, kPa, bar)
Air Capacity	140 NI/min. at 4 kgf/cm ²
Air Consumption	6.8 ~ 8.5 NI/min. at 4 kgf/cm ² at 50% output pressure

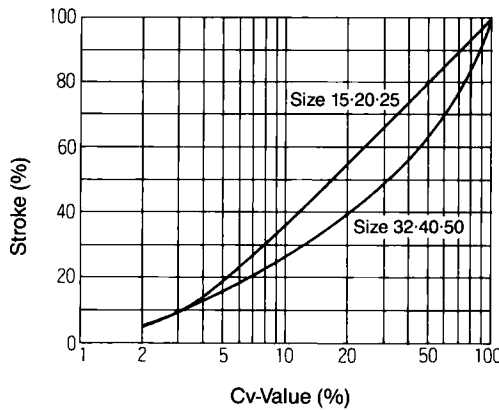
Electric Cable Connection	PF 1/2
Cable Conduit	Pressure-tight Packing
Construction	Explosion-proof JIS d2G4 (No. 38755) with Terminal Box, dust-proof, drip-proof to JIS F8001 3rd Class, water spray equivalent
Vibration Resistance	1% / 1G
Ambient Temperature Range	- 20 ~ 70°C
Cam Selection	Single cam for either linear or equal percentage characteristic

Flow Characteristics

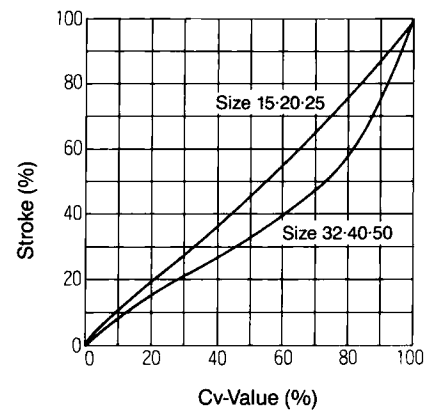
● Cv-Values

Size (mm)	15	20	25	32	40	50
Cv-Value	6	10	14	20	30	50
Stroke (mm)	15	15	15	25	25	25

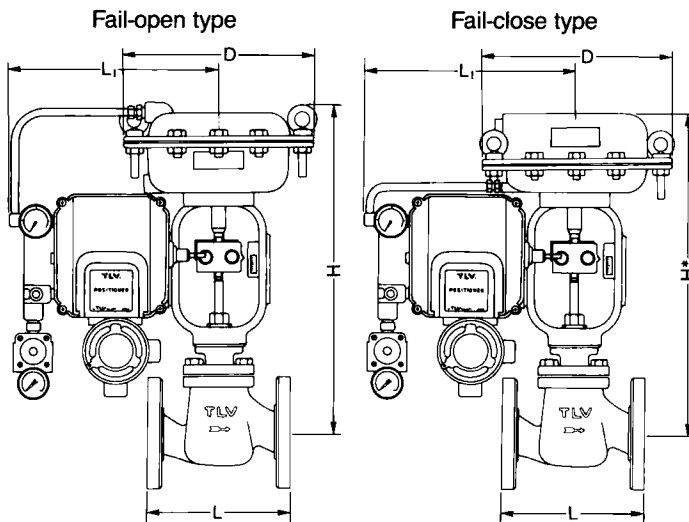
● Equal Percentage



● Linear



Dimensions



● CV16 Flanged*

Size (mm)	L	H	H**	D	Weight (kg)
15	130	380	365	215	14
20	150				15
25	160				16
32	180	395	400		19
40	200				20
50	230				24

*JIS 10, 16, 20K. Other standards available.

**Fail-close type.

Manufacturer

ISO 9001/ISO 14001

TLV® CO., LTD.
Kakogawa, Japan

is approved by LRQA Ltd. to ISO 9001/14001

