



ELECTRO-PNEUMATIC CONTROL VALVE

MODEL CV-COSR

POSITIONER/ACTUATOR CONTROL VALVE

Benefits

Control valve with I/P positioner integrated into a compact pneumatic actuator.

1. One combination I/P positioner/actuator (I/P positioned actuator) saves space and simplifies system layout, piping and maintenance.
2. Top mounting of the I/P positioned actuator eliminates passerby damage and misadjustment associated with side-mount components.
3. Zero/span adjustment can be performed by simple dial rotation.
4. Self-adjusting chevron packing minimizes seal leaks, stem wear and stiction/hysteresis problems.
5. A condensate drainage port is prepared at the bottom of the body to facilitate piping for installing a blow valve or steam/air trap to eliminate condensate.



Specifications

VALVE

Model	CV-COSR	
Connection	Flanged	
Size (in)	1, 1 1/2	2
Maximum Operating Pressure (psig) PMO	230	150
Maximum Operating Temperature (°F) TMO	428	
Maximum Allowable Pressure (psig) PMA	230	
Maximum Allowable Temperature (°F)	428	
Seal Plug Sealing / Leak Rate Class (ANSI/FCI 70-2 and IEC534-4)	Metal to Metal / Class IV	
Characteristic	Equal percentage	
Rangeability	50 : 1	
Applicable Fluids*	Steam, Water, Air	

*Do not use for toxic, flammable or otherwise hazardous fluids. CV-COSR is a non-standard product, consult TLV for delivery time required.

ACTUATOR

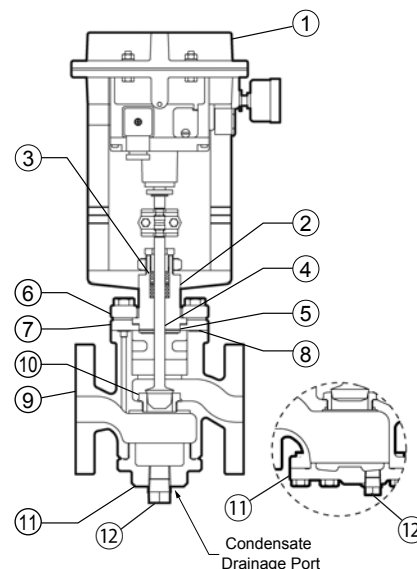
Actuator Area (in ²)	18.6
Fail-safe position	Valve CLOSED (Air to open)
Bench Range (psi)	30 to 48
Electrical Input Signal (mA)	4 to 20
Load Resistance (Ohm)	Approx. 300
Air Supply Pressure for Positioner (psig)	54
Transit Time for Rated Travel (seconds)	Approx. 3
Hysteresis (%)	< 1
Protection Class	IP 54
Ambient Temperature Range (°F)	14 to 140
Motive Medium	Oil-free air, filtered to 5 µm*

* Optional air regulator/filter available, contact TLV for details

No.	Description	Material	ASTM/AISI*	JIS
①	Actuator Body	Aluminum	—	GD-AI Si 12
②	Valve Bonnet	Carbon Steel	A105	—
③	Stuffing Box V-rings	Fluorine Resin w/ Carbon	PTFE	PTFE
④	Valve Plug and Stem	Stainless Steel	AISI304	SUS304
⑤	Valve Bonnet Gasket	Fluorine Resin	PTFE	PTFE
⑥	Flange	Cast Stainless Steel	A351 Gr.CF8	—
⑦	Valve Bonnet Guide	Cast Stainless Steel	A351 Gr.CF8	—
⑧	Valve Bonnet Guide Gasket	Fluorine Resin	PTFE	PTFE
⑨	Body	Cast Iron	A126 Cl.B	FC250
⑩	Valve Seat	Stainless Steel	AISI304	SUS304
⑪	Cover Plug	1" Cast Iron	A126 Cl.B	FC250
	Cover	1 1/2", 2" Ductile Cast Iron (GGG 40.3)	A395	FCD-S*
⑫	Drain Plug	Carbon Steel	A6	SS400

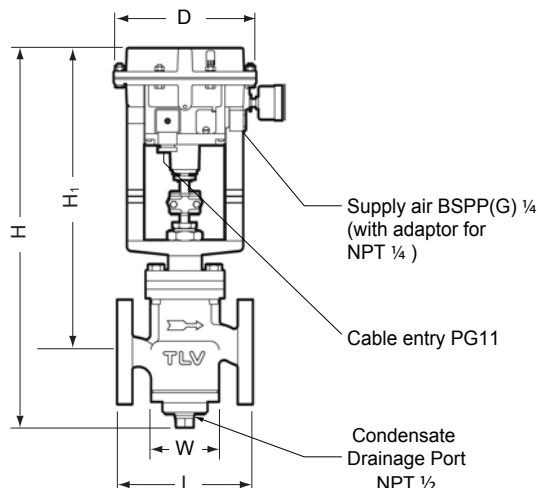
* Equivalent

CAUTION To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside of the specification range. Local regulations may restrict the use of this product to below the conditions quoted.



Dimensions

● CV-COSR Flanged



1" size shown.
Configuration of larger
sizes differs slightly

CV-COSR Flanged

(in)

Size	L (Cast Iron)		H	H ₁	W	ϕ D	Weight* (lb)
	ASME Class						
	125FF	250RF					
1	7 ¾	7 ⅞	17 ⅜	14 ¼	3 ⅞	6 ⅝	35
1 ½	8 ¼	8 ¾	18 ⅞	14 ⅜	5		49
2	9 ¾	10 ¼	19 ⅜	15 ⅜	6 ⅞		64

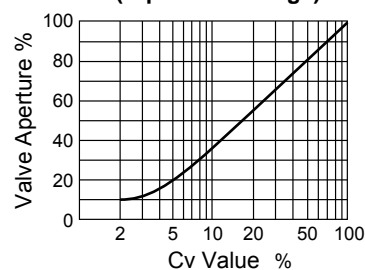
* Weight is for Class 250 RF

Cv Values

Size (in)	1	1 1/2	2
Cv (US)	9.0	27	40
Cv (UK)	7.5	23	33
Kvs (DIN)	7.7	23	34
Seat Diameter (in)	1 5/16	1 1/2	1 7/8

Characteristic Graph

(Equal Percentage)



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For Technical Service 1-800 "TLV TRAP"



Manufacturer

ISO 9001/ISO 14001

TLV CO., LTD.

Kakogawa, Japan

is approved by LRQA Ltd. to ISO 9001/14001

