



ELECTRO-PNEUMATIC CONTROL VALVE

MODEL CT16

COMPACT MULTI-PURPOSE CONTROL VALVE WITH ELECTRO-PNEUMATIC POSITIONER

Benefits

Electro-pneumatic globe valve with drain plug and I/P positioner for steam and non-hazardous fluids.

1. Pneumatic actuator with digital I/P positioner in a compact configuration.
2. Rolling actuator diaphragm ensures linearity over the operating stroke and maximizes life.
3. Self-adjusting positioner features zero calibration by auto-tuning, which ensures tight shut-off and improves control during low flow.
4. Positioner LCD allows simple operation with capacitive keys and displays valve travel and error codes.
5. Self-adjusting chevron packing minimizes seal leaks, stem wear and stiction/hysteresis problems.
6. Multi-spring actuator is highly efficient, and its low overall height facilitates compact installation.



Specifications

VALVE

Model		CT16		
Body Material		Cast Iron FC250 (equiv. to A126 Cl.B)		
Connection		Flanged ASME		
Size (in)		1, 1¼	1½	2
Max. Operating Pressure (psig)	PMO 125FF	130		
	250RF	268	246	159
Maximum Operating Temperature (°F)	TMO	428		
Maximum Allowable Pressure (psig)	PMA	268		
Maximum Allowable Temperature (°F)	TMA	428		
Leak Rate Class (IEC 60534-4)/Seat Plug Sealing		Class IV / Metal sealing (Option: Class VI / Soft sealing)		
Characteristic		Equal percentage		
Rangeability		50 : 1		
Applicable Fluids*		Steam, Water, Air		

* Do not use with toxic, flammable or otherwise hazardous fluids.

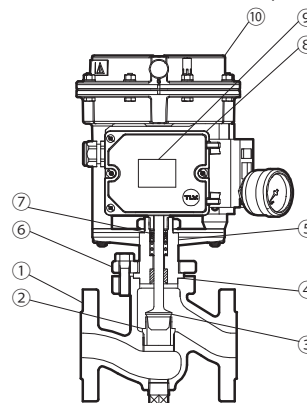
CT16 is a non-standard product, consult TLV for delivery time required.

ACTUATOR / POSITIONER

Fail-safe Position	Valve CLOSED (Air to Open)
Motive Medium	Oil-free air, filtered to 5 µm
Electrical Input Signal (mA)	4 to 20
Load Impedance (V)	Max. 6.3
Air Supply Pressure Range for Positioner (psig)	54 to 90
Ambient Temperature Range (°F)	-13 to +176
Protection Class	IP 66
Intrinsically Safe Rating (optional)	ATEX II 2G Ex ia IIC T4



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.



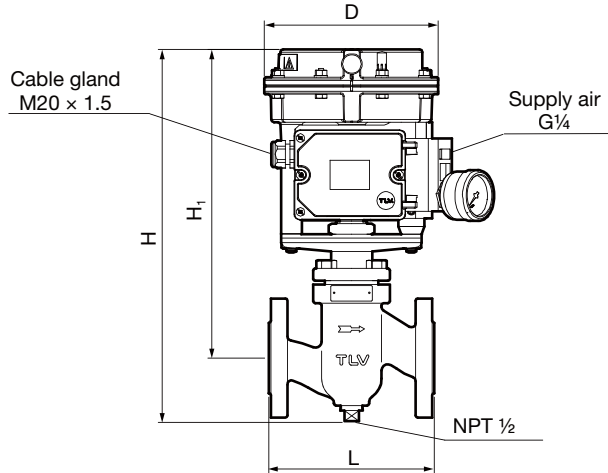
No.	Description	Material	ASTM/AISI*	JIS
①	Valve Body	See Valve Specification Table for available materials		
②	Valve Seat	Stainless Steel	AISI303	SUS303
③	Plug and Stem	Stainless Steel	AISI303	SUS303
④	Valve Bonnet Gasket	Graphite	—	—
⑤	Valve Bonnet	Carbon Steel	A105	—
⑥	Flange	Carbon Steel	A105	—
⑦	Stuffing Box V-ring Packing	Fluorine Resin with Carbon	PTFE	PTFE
⑧	Positioner Housing	Polyphthalamide	PPA	PPA
⑨	Positioner Cover	Polycarbonate	PC	PC
⑩	Actuator Body	Aluminium	—	GD-AI Si 12

* Equivalent

Contact TLV for available replacement parts.

Dimensions

● **CT16** Flanged



CT16 Flanged (in)

Size	L		Actuator Area (in ²)	H	H ₁	φ D	Weight* (lb)
	Connects to ASME Class						
	125FF	250RF					
1	7¼	7¾	18.6	13¾	11½	6 ⁵ / ₈	24
1¼	8¾	9¼		14¾			11 ¹¹ / ₁₆
1½	10	10½		15	40		

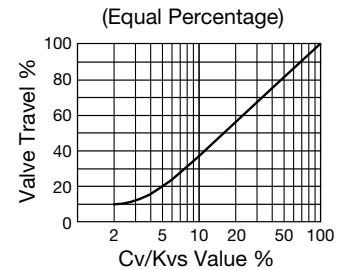
Other standards available, but length and weight may vary
* Weight is for Class 250 RF

Cv & Kvs Values

Size	1	1¼	1½	2
Cv (US)	12 [5.0]	20 [7.5]	30 [12]	40 [20]
Cv (UK)	9.7 [3.9]	15.5 [6.1]	24 [9.7]	34 [15.5]
Kvs (DIN)	10 [4.0]	16 [6.3]	25 [10]	35 [16]
Seat Diameter (in)	1 ⁵ / ₁₆ [½]	1¼ [1 ⁵ / ₁₆]	1½ [1 ⁵ / ₁₆]	1¾ [1¼]

[] Optional

Characteristic Graph



Options

Intrinsically Safe Positioner	ATEX II 2G Ex ia IIC T4
Pressure Gauge for Positioner	Fitted as standard, available without
Electric Actuator*	Details on request

* Manufacturer: Samson AG



DO NOT DISASSEMBLE OR REMOVE THIS PRODUCT WHILE IT IS UNDER PRESSURE. Allow internal pressure of this product to equal atmospheric pressure and its surface to cool to room temperature before disassembling or removing. Failure to do so could cause burns or other injury. READ INSTRUCTION MANUAL CAREFULLY.

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Manufacturer
TLV CO., LTD.
Kakogawa, Japan
is approved by LRQA Ltd. to ISO 9001/14001

