



GVI Series Industrial Globe Valves for Flow Control



GVI 2-way Flow Control Globe Valves

Assured Automation's GVI Series Industrial Globe Valves are constructed with rugged carbon steel or stainless steel bodies. They have a bolted bonnet and cage retained seats for ease of maintenance. They are available with a variety of plug styles and trim materials to suit nearly any application. These valves provide excellent modulating control for pressure, temperature, level, and flow of a wide variety of fluids from -20 to 800° F.

MATERIALS

Body: Carbon Steel (WCB) or Stainless Steel (CF8M)
Seal and Trim: 316 SS, TFE, PEEK
Cage, Stem, & Seat Ring: 316 SS
Stem Packing: Teflon, Graphite, EPDM, Vacuum Service

TYPICAL APPLICATIONS

- General 2-way Flow Control Service
- Chemical Processing
- Food & Beverage
- Marine
- Pulp & Paper
- Refining
- Power Generation
- Pharmaceutical

END CONNECTIONS

- NPT 1/2" to 2"
- Socket Weld 1/2" to 2"
- 150# Flange 1/2" to 4"
- 300# Flange 1/2" to 4"

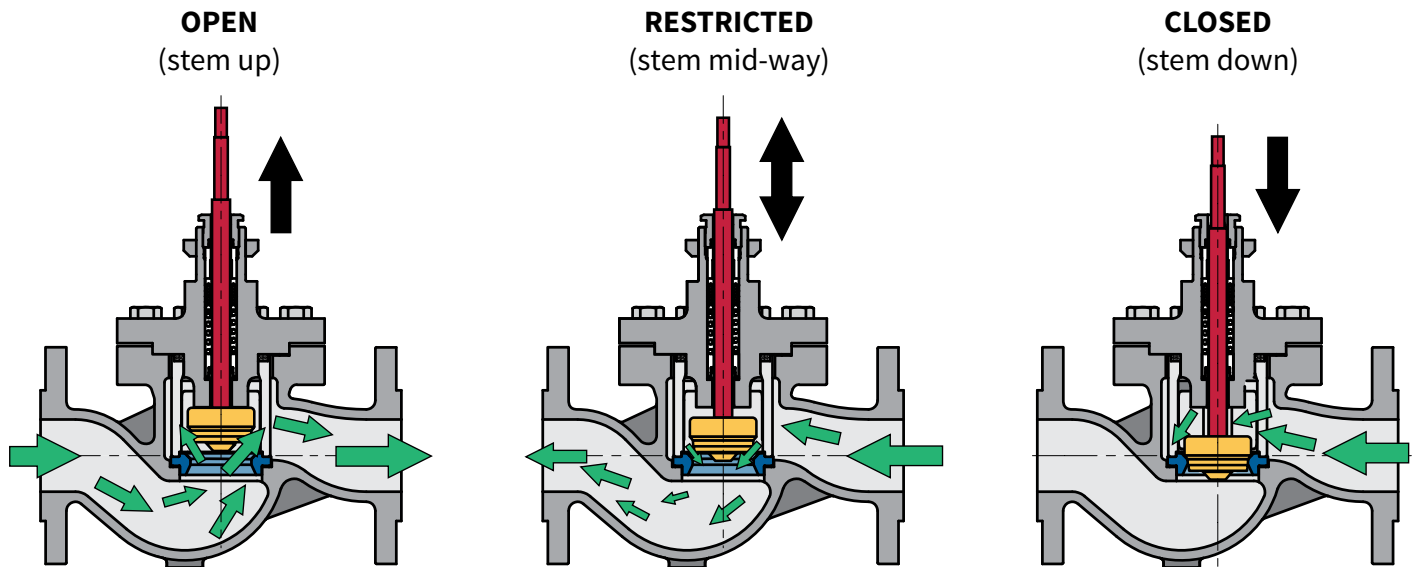
SPECIFICATIONS

Temperature Range: -20° F to 800° F
Pressure Rating: see chart next page

ACTUATORS

- Pneumatic Diaphragm
- Pneumatic Cylinder (*special order*)
- Electric
- Manual (*special order*)

2-WAY FLOW CONTROL FUNCTION





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Industrial Globe Control Valves

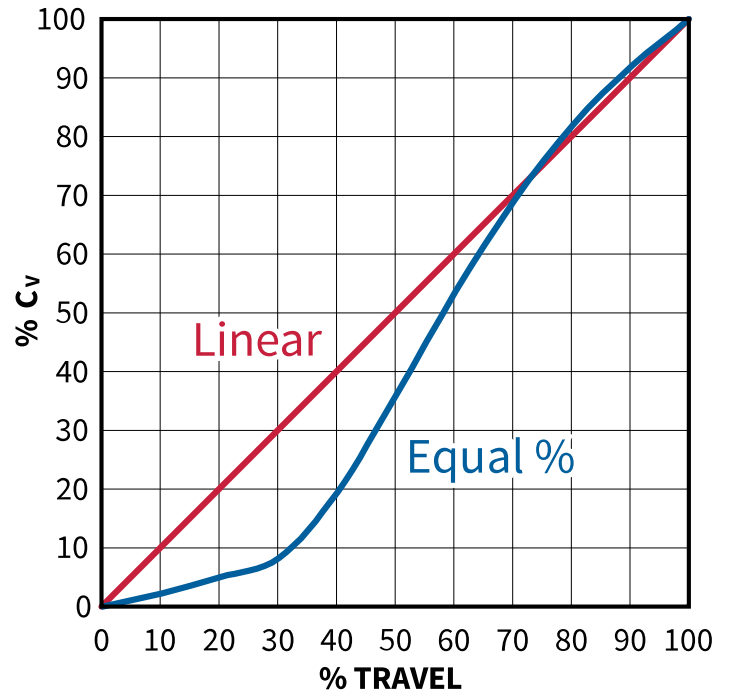
TYPICAL FLOW CURVES

Valve Size	Trim Size	Cv
1/2"	0.50	4.34
	0.38	2.5
	0.25	1.25
3/4"	0.88	11.4
	0.50	5
	0.38	2.5
	0.25	1.25
1"	0.88	12
	0.50	5
	0.38	2.5
	0.25	1.25
1 1/2"	1.25	24
	0.88	12
	0.50	5
2"	1.69	43
	1.25	24
	0.88	12
2 1/2"	2.13	65
	1.69	43
3"	2.50	100
	2.13	65
4"	3.38	170
	2.50	100

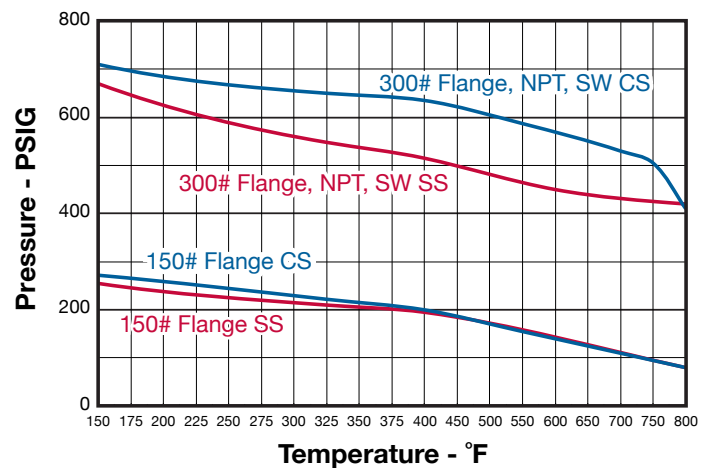
VALVE ASSEMBLIES

All GVI control valves are shipped as complete valve assemblies including the valve, actuator, positioner (if selected), and solenoid valve (if selected). They are assembled and tested by qualified valve technicians before shipping.

MAX. Cv VALUES



PRESSURE / TEMPERATURE CURVES





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FEATURES AND BENEFITS

Dual Point Bearing Plug Guiding
provides both stability and low friction, resulting in the lowest hysteresis and precision control.

Stem Wipers
provide outstanding packing protection and stem stability

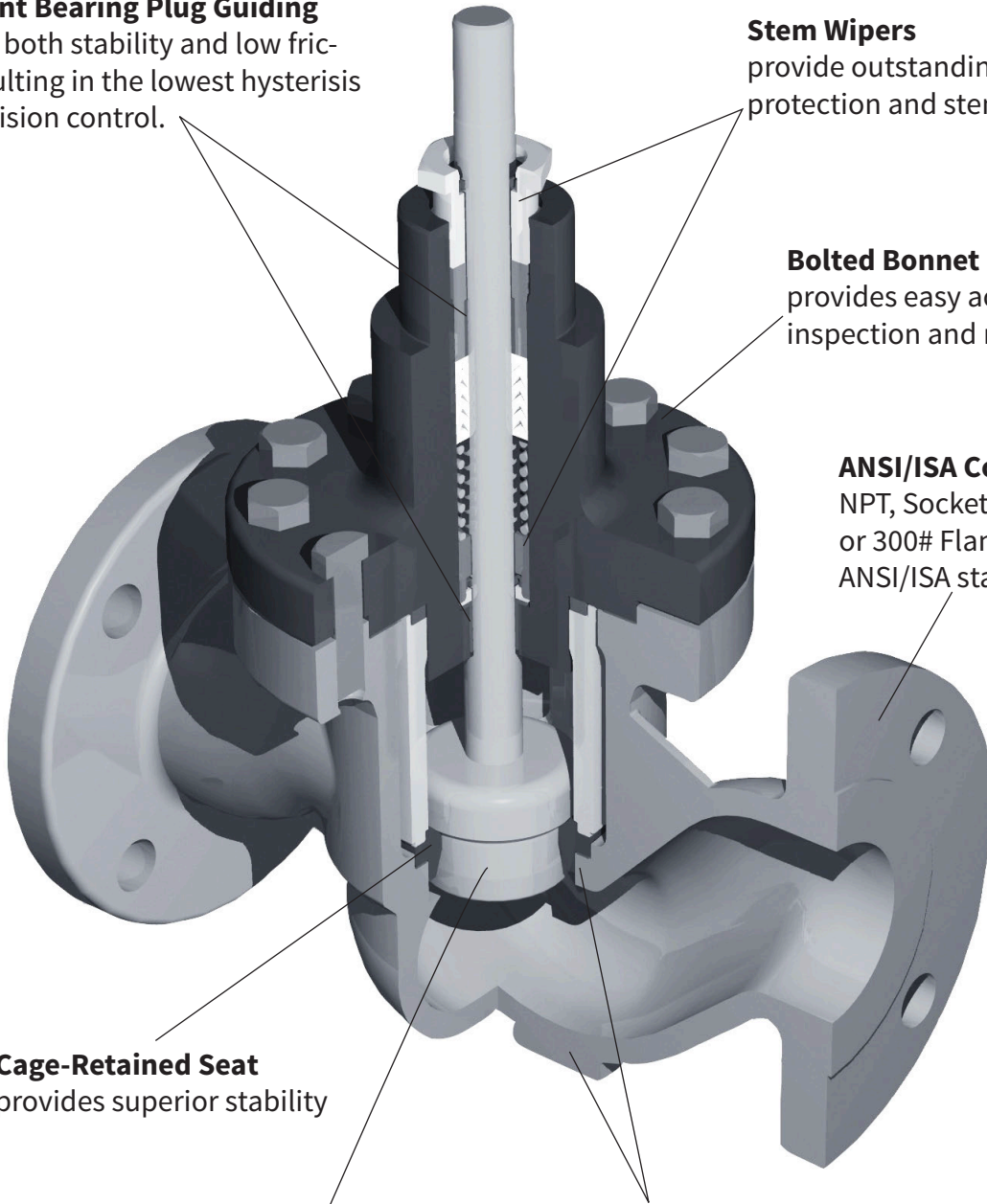
Bolted Bonnet
provides easy access for inspection and maintenance

ANSI/ISA Connections
NPT, Socket Weld, 150# Flange, or 300# Flanges adhere to ANSI/ISA standards

Cage-Retained Seat
provides superior stability

Standard Trim Choices
316SS, 400SS, Alloy 6, PEEK, and PTFE

Compact, Rugged, Cast Body
made of carbon steel or stainless steel with a variety port reductions to provide optimal control for a wide range of flow rates





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Industrial Globe Control Valves

ACTUATORS

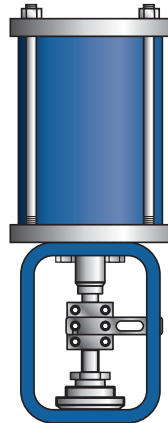
Pneumatic Diaphragm

Three sizes available in fail open or fail closed: 49 in², 84 in², and 115 in². Declutchable manual override optional. Positioners and solenoid valves available.



Pneumatic Cylinder (special order)

3 sizes available in fail open or fail closed: 4 in Ø, 6 in Ø, and 8 in Ø. Declutchable manual override optional. Positioners and solenoid valves available.



Electric Actuators

2 sizes available in fail-in-place, fail open, or fail closed: small frame, medium frame. IP65 enclosure standard and IP67 available. Manual override standard.



If you need assistance selecting the best actuator for your application, please call us at 1-800-899-0553

ACCESSORIES

Positioners

A variety of positioners are available. Choose from weatherproof, intrinsically safe, and explosion proof. Options include switches, 4-20mA, or both as feedback.

Solenoid Valves

Pneumatic actuators require a solenoid valve to control the air supply that drives the actuator. These can be ordered with the globe valve and will come installed and tested on the assembly.

Manual Overrides

These overrides allow the manual operation of the valve in case of an emergency, malfunction, or for any reason it may be required. They consist of a hand wheel and are mounted to the top of the actuator on the stem's centerline.

Limit Switches and Feedback Signals

Choose from switches, 4-20mA, or both when selecting a positioner.

Heaters

Available on electric actuators to prevent condensation.

Local Control Stations

Switch between the system control signal and a signal generated by the local control station to use up and down buttons to control the valve. Valve position is shown on a display.

Thermal and Acoustic Blankets

Custom fit jackets are available to retain heat and prevent it from radiating to the actuator which has a lower temperature rating than the valve. In many cases, this allows for installation with the actuator above the valve where it would otherwise not be possible due to heat. These blankets are also available with an additional layer for reducing the ambient noise.

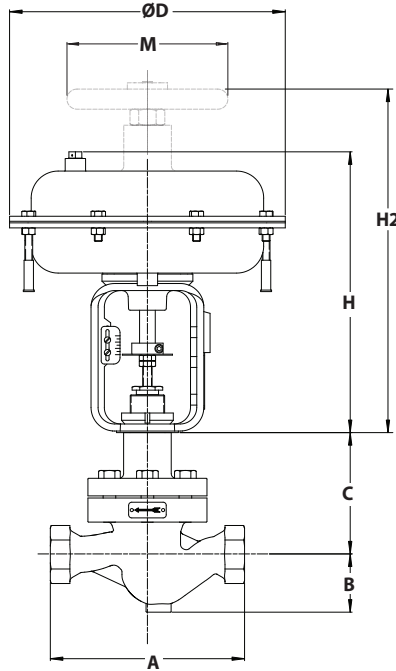


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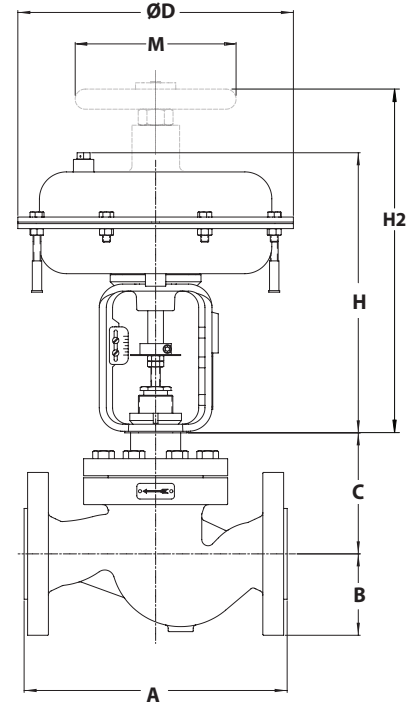


Industrial Globe Control Valves

DIMENSIONS Pneumatic Diaphragm Actuators



NPT/Socket Weld



Flanged

Valve Dimensions

Dim.	Conn.	1/2"	3/4"	1"	1 1/2"	2"	2 1/2"	3"	4"
A	300# NPT	7.50	7.625	7.75	9.25	10.5	Not Available		
	300# SW	7.50	7.625	7.75	9.25	10.5			
	150# Flg.	7.25	7.25	7.25	8.75	10.0	10.875	11.75	13.875
	300# Flg.	7.50	7.625	7.75	9.25	10.5	11.5	12.5	14.5
B	All	2.00	2.375	2.50	3.25	3.375	4.00	4.375	5.25
C	All	10	10	10	9.875	9.875	14	14	14

Actuator Dimensions

Dim.	D4 (48 sq in.)		D8 (84 sq in.)		D1 (115 sq in.)	
	Fail Closed	Fail Open	Fail Closed	Fail Open	Fail Closed	Fail Open
ØD	11	11	13.875	13.875	16.75	16.75
M	6.375	6.375	8.125	8.125	10.125	10.125
H	12.25	11.25	16.75	15.75	28	30
H2	16	13.75	24.125	24	37	45.5
Weight	25	25	48.5	48.5	105	105

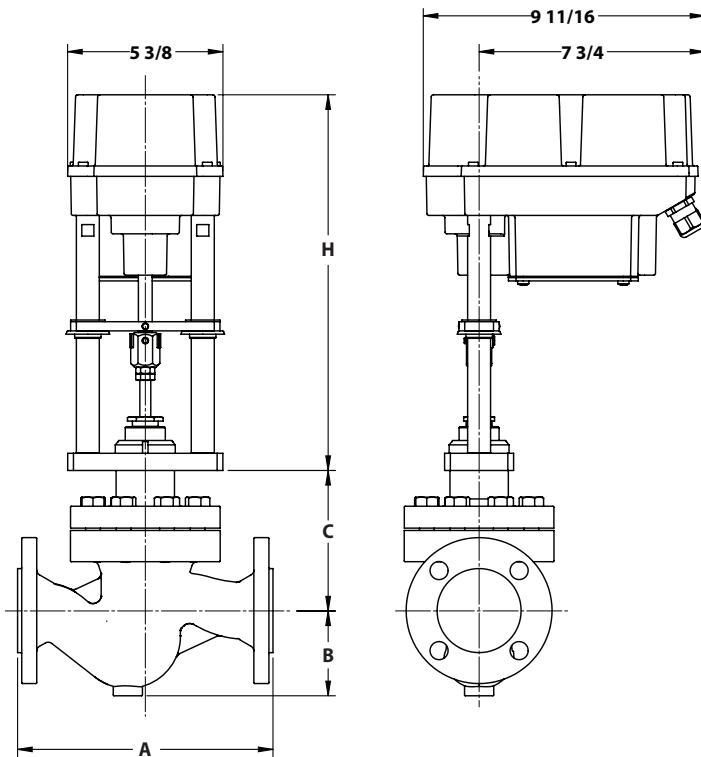


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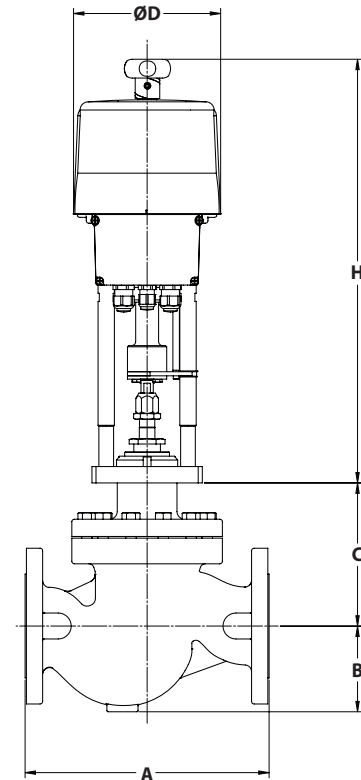


Industrial Globe Control Valves

DIMENSIONS Electric Actuators



LES - Small Frame



LEM - Medium Frame

Valve Dimensions

Dim.	Conn.	1/2"	3/4"	1"	1 1/2"	2"	2 1/2"	3"	4"
A	300# NPT	7.50	7.625	7.75	9.25	10.5	Not Available		
	300# SW	7.50	7.625	7.75	9.25	10.5	Not Available		
	150# Flg.	7.25	7.25	7.25	8.75	10.0	10.875	11.75	13.875
	300# Flg.	7.50	7.625	7.75	9.25	10.5	11.5	12.5	14.5
B	All	2.00	2.375	2.50	3.25	3.375	4.00	4.375	5.25
C	All	10	10	10	9.875	9.875	14	14	14

Actuator Dimensions

Dim.	LES (small frame)	LEM (medium frame)
ØD	not applicable - see drawing	7.125
H	13	20.25
Weight	12.5	17.6



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Industrial Globe Control Valves

CONTROL VALVE ORDERING

To easily create a complete and correct model code, please visit our web site and use the configurator.

C	GVI	U	F1	C	L	S	1	T	P
Size	Series	Type	Connection	Body	Flow	Trim	Trim Size	Packing	Bonnet

Line Size: _____

- C = 1/2"
- D = 3/4"
- E = 1"
- G = 1 1/2"
- H = 2"
- I = 2 1/2"
- J = 3"
- K = 4"

Series: _____

GVI = Industrial Globe Control Valve

Type: _____

- B** = Balanced (standard on sizes 2 1/2 and above)
- U** = Unbalanced (standard on sizes 2 and below)

Connection: _____

- F1** = Class 150 Flange
- F3** = Class 300 Flange
- N** = NPT (female) (1/2" to 2" only)
- S** = Socket weld (1/2" to 2" only)

Body Material: _____

- C** = Carbon Steel (WCB)
- S** = Stainless Steel (CF8M)

Flow Profile (trim style): _____

- E** = Equal Percentage
- L** = Linear

Trim & Seat Material: _____

- P** = PEEK
- S** = 316 Stainless Steel
- T** = TFE

Flow Capacity: (chart values are Cv at 100% travel) _____

		1/2"	3/4"	1"	1 1/2"	2"	2 1/2"	3"	4"
F =	Full	4.34	11.5	12	24	43	65	100	170
1 =	1st Reduction	2.5	5	5	12	24	43	65	100
2 =	2nd Reduction	1.25	2.5	2.5	5	12	-	-	-
3 =	3rd Reduction	-	1.25	1.25	-	-	-	-	-

Packing Type: _____

- E** = EPDM
- G** = Graphite
- T** = Teflon
- V** = Vacuum Service

Bonnet Construction: _____

- P** = PEEK bearings
- S** = Z PEEK bearings (for steam)

This is the complete specification for the VALVE BODY. Continue on next page to specify the actuator.



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Industrial Globe Control Valves

PNEUMATIC ACTUATOR ORDERING

To easily create a complete and correct model code, please visit our web site and use the configurator.

D4	C	H - B4	M - R5/30 - A - H	S
Actuator	Fail Pos	Springs	Pos.	Feedback
			Air Filter	Sol.
			Hand	Special

Pneumatic Actuator: _____

- D4** = 49 square inch Diaphragm
- D8** = 84 square inch Diaphragm
- D1** = 115 square inch Diaphragm

Fail Position: _____

- C** = Closed
- O** = Open

Spring Range: _____

- L** = Low (standard on fail Open)
 - F** = Full (consult factory)
 - H** = High (standard on fail Closed)
- (Extra High Ranges are also available - consult factory)

Positioner: _____

- 00** = none
- B0** = BLX pneumatic
- B4** = BLX Electro-pneumatic NEMA 4 weatherproof
- B1** = BLX Electro-pneumatic Intrinsically Safe
- B7** = BLX Electro-pneumatic NEMA 7 explosion proof
- S0** = Seimens pneumatic
- SI** = Seimens Electro-pneumatic Intrinsically Safe

Positioner Feedback: (Positioner required... not available on B1 or B7 positioners)

- (omit) = none
- M** = mechanical switches
- 420** = 4-20 mA signal
- M420** = mechanical switches and 4-20 mA signal

Air Filter Regulator: _____

- R5/30** = 5 micron, 0-30 psi
- R5/60** = 5 micron, 0-60 psi
- R5/120** = 5 micron, 0-120 psi
- R25/100** = 5 micron, 0-100 psi

Solenoid Valve: _____

- A** = 120VAC, 3-way, Brass, NEMA 4 weatherproof
- B** = 120VAC, 3-way, SS, NEMA 4 weatherproof
- J** = 120VAC, 4-way, Brass, NEMA 4 weatherproof
- K** = 120VAC, 4-way, SS, NEMA 4 weatherproof
- L** = 120VAC, 3-way, Brass, NEMA 7 explosion proof
- M** = 120VAC, 3-way, SS, NEMA 7 explosion proof
- V** = 120VAC, 4-way, Brass, NEMA 7 explosion proof
- W** = 120VAC, 4-way, SS, NEMA 7 explosion proof
- Z** = 24VDC, 3-way, Brass, NEMA 4 weatherproof

Hand Wheel Manual Override: _____

- (omit) = none
- H** = include a top-mounted hand wheel

Special Options: _____

- (omit) = none
- S** = SS tubing

This is the complete specification for the ACTUATOR. For the complete VALVE ASSEMBLY simply add this code to the VALVE BODY code generated on the previous page with a dash between them.

Example: (using selections from the top of BOTH pages)

CGVIUF1CLS0.25TP-D4CH-B4M-R5/30-A-HS



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Industrial Globe Control Valves

ELECTRIC ACTUATOR ORDERING

To easily create a complete and correct model code, please visit our web site and use the configurator.

LES 12 U A
Actuator Speed Fail Pos Voltage

Electric Actuator:

- LES** = Linear Electric Small frame
- LEM** = Linear Electric Medium frame

Speed:

- 06** = 6 seconds
- 12** = 12 seconds
- 21** = 21 seconds
- 85** = 85 seconds

Fail Position:

- L** = in place
- U** = up
- D** = down
- C** = capacitive - fail down
- C** = capacitive - fail up

Voltage:

- A** = 120 VAC
- B** = 24 VDC
- C** = 230 VAC
- E** = 24 VAC

This is the complete specification for the ACTUATOR. For the complete VALVE ASSEMBLY simply add this code to the VALVE BODY code generated on the previous page with a dash between them.

Example: (using selections from the top of BOTH pages)

CGVIUF1CLS0.25TP-LES12UA

Try it the Easy Way!

Use our online configurator to specify a complete valve assembly

assured**automation.com**

