

TECHNICAL BULLETIN

SCV-S-TB 12-20

MODEL SCV-S SANITARY GLOBE-STYLE CONTROL VALVES

A control valve for throttling applications

OVERVIEW

The Model SCV-S is a **throttling**, pneumatically actuated control valve. This design provides a geometrically characterized plug for superior **throttling** dynamics, plus the unit's ease of cleanability and maintenance meet the requirements of sanitary control valves.

FEATURES

Design Concept:

Design Concept.	A control valve for uncerning applications.
Two Body Configurations:	Traditional straight-thru globe pattern, or angle body pattern, both self-draining. Forged 316L SST or barstock 316L SST body material; barstock 316L SST bonnet material.
Multiple Ports:	Both full and reduced port designs to optimize dynamic response.
Characteristic:	Linear.
Dual Stem Seal:	Two spring-energized stem seals ensure sealing against ingress of contaminants and egress of contained fluid. Available in two materials.
Polished Interior:	Interior of wetted surfaces mechanically polished and electro-polished to 10 micro-inch R_a finish.
Exterior Finish:	SST portions of body electro-polished. All other metallic exposed surfaces are of SST or coated with epoxy.
Readily Accessible:	Unit can be easily and quickly disassembled in-line for inspection. Quick disconnect body-to-bonnet joint.
Cleaning Capability:	Unit designed for clean-in-place (CIP) and steam-in-place (SIP) systems.

APPLICATIONS

Used in pharmaceutical and biotechnical industries in production of shear sensitive microorganisms and many health care products for both human and animal consumption. Suitable for processed food and cosmetics production.

Would be found supporting fermenters, batching tanks, cookers, dryers and other similar sanitary equipment. Suitable in WFI (Water for Injection) systems.

Model SCV-S was designed primarily for clean steam service, and is applicable in saturated steam up to 150 psig (10.3 Barg), or superheated steam up to 150 psig (10.3) Barg) and 366°F (186°C) continuous service.

Also available for liquid or gas applications for temperatures up to 250°F (186°C) as a "food grade" product.



MODEL SCV-S Straight-Globe Pattern with C27 Actuator

LINE SIZES AVAILABLE 3/4" (DN20), 1" (DN25), 1-1/2" (DN40)

END CONNECTIONS SANITARY TRI-CLAMP, BUTT WELD

COMMON APPLICATIONS

PHARMACEUTICAL, BIOTECHNICAL, HEALTH CARE, PROCESSED FOOD, COSMETICS, BATCHING TANKS, COOKERS, DRYERS

FULL VACUUM TO +150 psig (+10.3 Barg)



STANDARD/GENERAL SPECIFICATIONS

Body Sizes:	Body Sizes: <u>Full Port</u> – 3/4" (DN20), 1" (DN25), 1-1/2" (DN40).		Flow Capacity:		Per ISA 75.11.01 standard. See Tables 3 and 4.				
	Opt-12 Reduced Port – 1" (DN25) and 1-1/2" (DN40).	Rangea	ability:	30:1 (FTO	only).				
Body Form:	Straight-Globe and Angle-Globe.	Flow D	irection	FTO – Flov for FTC di		en. (Not	recomm	lended	
End Connections:	Standard: Sanitary "Tri-Clamp®". De-	Body	y Size	Port	Strai	ght	Ang	gle	
	signed to seal against weld type clamp	in	(DN)	Size	Cv	kv	Cv	kv	
	liners per ISO 2852. Optional: Butt weld (Opt-24).	3/4"	(20)	Full	2.8	2.4	3.8	3.3	
Inherent	/ //	1"	(25)	Full	6.0	5.1	7.5	6.5	
Characteristic:	Linear.		(23)	Opt-12 Red.	3.5	3.0	5.0	4.3	
Operating		1-1/2"	" (40)	Full	11.8	10.1	13.5	11.6	
Operating Pressure	Function of actuator bench set range:			Opt-12 Red.	6.5	5.6	8.0	6.9	
Range:	Full vacuum to +150 psig (Full vacuum to +10.3 Barg)	Seat Le	eakage:	Per ANSI/ Metal se Compos	eated - C	Class IV	-		
Operating Temperature Range:	Up to +366°F (186°C); function of Trim Designation No. applied. Minimum – 0°F (-17°C).	Actuate	or:	Spring-Dia reversible. <u>Direct</u> : AT				-	
Maximum Operating Pressure Drop:	Function of actuator bench range: Up to 150 psid (10.3 Bard). See Table 2	<u>Direct</u> : Increase in air "LOAI actuator stem. <u>Reverse</u> : Increase in air "LOA actuator stem.							
Registered Tradename, Alfa-Laval Group, Tri-Clover Division.				<u>ATC-FC</u> <u>ATO-FC</u> Standar	: Air-to-0 : Air-to-0	Open, F	ail Clos	ed;	

Painting:

Standard Actuator compliant with IEC 60534-6-1 for mounting standardized positioners.

Standard - All non corrosion resistant portions are powder coated per Spec. S-1743 and /or with corrosion resistant epoxy paint per Cashco Spec #S-1606. Alternate: See Opt-95.

Maximum CIP CIP – Clean-in-Place. **Conditions:** Recommended: Maximum cleaning fluid pressure - 50 psig (3.4 Barg).

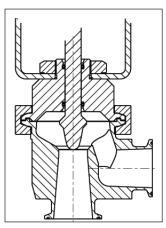


FIGURE 2 – Angle Body w / Metal Plug

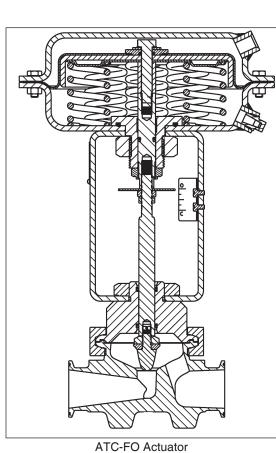


FIGURE 1 – Straight body w / Composition Plug

BODY TECHNICAL SPECIFICATIONS

Port Size, Stroke:

			Port				
Nom Body		F	Full		Opt-12 Reduced		ninal oke
in	(DN)	in	(mm)	in	(mm)	in	(mm)
3/4"	(20)	.500	(12.7)				
1"	(25)	.688	(17.5)	.500	(12.7)	.75	(19.0)
1-1/2"	(40)	1.000	(25.4)	.688	(17.5)		

NOTE: Trim is interchangeable based on port size as each has the same stroke; i.e. $1^{"}$ (25.4mm)- reduced port trim will directly transfer to $3/4^{"}$ (19.1 mm)- full port, either angle or straight pattern.

Installation Orientation:

Internal surfaces sloped and oriented to give "self-draining" with valve plug "open" when installed per Figure 3.

End Connection Details: Standard: For mating to piping with quick couple, mechanical joints; Alfa-Laval "Tri-Clamp". See Figure 4.

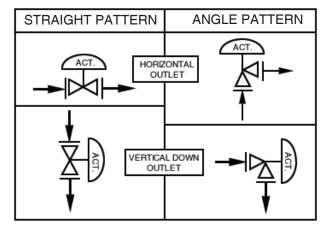


FIGURE 3: Installation Orientation

Non	ninal	Dimensions for Fig. 4							
Body Size		ID		OD		D1			
inch	(DN)	inch	(mm)	inch	(mm)	inch	(mm)		
3/4"	(20)	0.625	(15.9)	0.98	(24.9)	0.80	(2.3)		
1"	(25)	0.856	(21.7)	1.984	(50.4)	1.738	(44.1)		
1-1/2"	(40)	1.356	(34.4)	1.984	(50.4)	1.738	(44.1)		

Nominal		Dimensions for Fig. 5							
Body Size	ID	OD	t	C1	C2				
Inch (DN)	inch (mm)	inch (mm)	inch (mm)	inch (mm)	inch (mm)				
3/4" (20)	0.620 (15.7)	0.750 (19.1)		MINI					
1" (25)	0.870 (22.1)	1.000 (25.4)	.065 (1.65)	MIN. 1.69	0.75 (19.0)				
1-1/2" (40)	1.370 (34.8)	1.500 (38.1)		(17.5)					
NOTE: Tube	e ends are f	or 16 Ga. tul	be.						

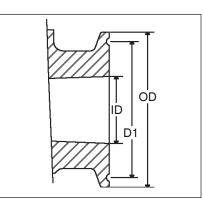


FIGURE 4: Std. "Tri-Clamp" End Connection

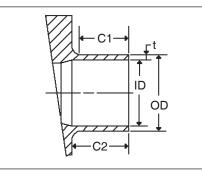


FIGURE 5: Opt-24 Butt Weld End Connection

BODY SUB-ASSEMBLY MATERIAL SPECIFICATIONS

Body:	Forged, ASTM F182, Gr. F316L (316L SST). Barstock - 316L SST; ASTM A479, S31603	Stem Seal:	<u>Dual</u> – Upper and lower. TDN S89LF utilizes o-ring seals with vented mid-zone. All other TDN's utilize spring-energized seals
Bonnet:	Barstock - 316L SST; ASTM A479, S31603, annealed.		with non-vented mid-zone. <u>Materials</u> – Selected with Trim Des-
Plug/Stem Assembly:	Barstock - 316L SST; ASTM A479, S31603, annealed. See Table 5.		ignation Number. Function of service fluid and maximum temperature. See Table 5.
Wetted Surface Finish:	Mechanically polished with 240 grit compound; manually polished where required. Electro-polished. Final sur- face is 10 micro-inch R _a . Final cleaning per Cashco Specification #S-1576.	Bonnet Clamp:	Alfa-Laval Group, Tri-Clover Div., "Tri- Clamp"; 304 SST electro-polished. Two-piece clamp with SST bolt/nut fasteners.
wGasket:	Expanded PTFE.	NO	TE: TDN = Trim Designation Number.

ACTUATOR TECHNICAL SPECIFICATIONS

Ambient

Temperature Range:

Size, Stroke, & Volume:

Actuator	Diaph. Area		Nom Stre	-	Action	Clea	Vol rance	umes Displ	acement
Model	in²	(cm ²)	in	(mm)		in ³	(cm ³)	in ³	(cm ³)
C27 32 (209)		(000)	0.75		ATC	25.8	(422)	25.4	(416)
	(209)	0.75 (19)		ATO	24.4	(399)	24.1	(394)	

Bench Set Range:

	Bench Range		Air Pressure				
Actuator Model			Normal		Design Max		
	psig	(Barg)	psig	(Barg)	psig	(Barg)	
C27	5-15	(.34-1)	20	(1.4)	100	(6.9)	
027	15-60	(1-4.1)	75	(5.2)	100	(0.9)	

ACTUATOR SUB-ASSEMBLY MATERIAL SPECIFICATIONS

Part	Material		
Diaphragm	Buna-N w/Polyester Insert		
Lower & Upper Case, Yoke	Steel		
Attachment Hub	17-4 PH SST		
Stem	316/316L SST		
Diaph. Washer O-ring, Hub O-ring, Stem O-ring	Buna-N		

Part	Material
Diaphragm Washer	316/316L SST
Diaphragm Plate, Stem Spacer, Spring Plate, Hub Nut, Stem Bolt, Stem Lock Washer	Steel
Bolts & Nuts	Steel Plated
Spring	Epoxy Coated Steel

-50° to +180°F

(-45° to +82°C).

OPTION SPECIFICATIONS

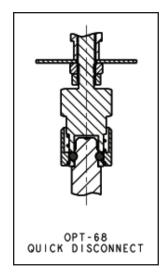
- Option-3: MANUAL HANDWHEEL. Overrides the actuator spring force to allow manual stroking of the valve. Single acting design, side-mounted handwheel. For <u>ATO-FC</u> action, handwheel operator "opens" the valve against spring force; may be utilized as a travel stop to prevent full closure. For <u>ATC-FO</u> action, handwheel operator "closes" the valve against spring force; may be utilized as a travel stop to prevent full opening.
- Option-12: <u>REDUCED PORT</u>. Standard full port body is replaced with an alternate body with its <u>integral</u> reduced port. See Pg. 3, "Port Size & Stroke" for actual port size. <u>NOTE</u>: To convert from one port size to the other port size for a given body size requires that the body be replaced as well as the plug/stem/ diaphragm sub-assembly.

Option-24:

Option-68:

<u>BUTT WELD END CONNECTIONS</u> <u>– 16 Ga</u>. Alternate to "Tri-Clamp" mechanical quick connect end connections. For connecting to 16 Ga. OD tubing. For butt weld jointing using automatic orbital welding process. Dimensions for the standard Opt-24 butt weld are indicated in Figure 5 on page 3; for butt welds of different dimensions consult factory.

QUICK DISCONNECT STEM CON-NECTOR. Standard threaded engagement stem connector is replaced with spring-loaded quick disconnect for fast uncoupling between actuator and body assemblies.



Option-95:

<u>EPOXYPAINT:</u> Special epoxypainting of all non-corrosion resistant external surfaces per Cashco Spec #S-1547. Utilized in harsh atmospheric conditions.

MOUNTED ACCESSORY SPECIFICATIONS

Destitions			
Positioners:	General: PMV Positioners. Aluminum housing with corrosion resistant powder coated epoxy. Pneumatic output load as required by actuator bench range.	Air Tubing:	Instrument air tubing SST with SST fittings.
	Field reversible action. Mounting di- mensions per IEC 60534-6-1 Standard.	Airset:	Model 5200P instrument air supply regulator. Use with positioners. Bracket mounted to actuator casing. Supplied
	<u>P/P Pneumatic</u>: Model P5 features SST cam with a simple cam locking device, tapped exhaust port for venting		with gauge. See technical bulletin 5200P-TB.
	media, external zero adjustment. Input signal 3-15 psig, Includes gauge ports, no gauges. Analog only.	Solenoid Valve:	Standard Brass: Available in standard weather-proof model. Brass body, 1/4" female NPT connections. Nipple mounted to actuator casing. 120 VAC,
	I/P Electro-Pneumatic: Model D20 Digital or Hart compatible. Features single button self-calibration. input signal 4-20mA. Optional gauge block with gauges for Models D20 D and D20 A.		60 Hz power supply, CSA Approved Class 3221-01, NEMA 2,3,3S,4,4X. 8" HF utilizes a direct mount NAMUR mount style.
	Model D20 D is general purpose. Model D20 A is Intrinsically safe, Ex ia ATEX.		X-Proof or SST construction: Consult Factory.
	Model D20 E is ATEX EEX d IIB+H ₂ , T6 FM Approved. Gauge block is built in, no gauges. Not available with limit switch option.		Standard installation vents actuator and drives valve to fail-safe position upon loss of electrical power.
	Model D3 Digital, Hart, Profibus, or Field- bus compatible. Input signal 4-20mA. Features large graphic display. Optional		Consult factory for 230/1/50, or 120 VDC power supplies, or intrinsically safe (IS) service.
	gauge block for Models D3 X and D3 I, no gauges. Model D3 X is general purpose.	Transducers:	FM, CSA approved NEMA 4X Cl 1, Div 1 and Cl 1, Div 2
	Model D3 I is Intrinsically safe, ATEX EEX ia IIC T4. Model D3 E is ATEX EEX d IIB+H ₂ , T6 CSA CLS 1 DIV 1	Other Accessories:	764 P/PD pressure controller. Lockup valve. Position transmitter.
	FM CLS 1 DIV 1 Gauge block is built in, no gauges. Not available with limit switch option.	Limit Switches:	Model D20 and D3 positioners, switches are available, unit is enclosed in the positioner housing.
	Model PS2 Digital, Hart, Fieldbus and Profibus compatible. Input signal 4-20mA. Features a Makrolon hous- ing, (Aluminum for Explosion Proof.) Mounting dimensions per IEC 60534-6-1		Limit switch options not available on Explosion proof rated positioners.
	Standard. Model PS2-1 is general purpose. Model PS2-2 is Intrinsically safe, ATEX Ex ia IIC T6/T4, FM CLS 1 DIV 1, CSA CLS 1 DIV 1, SIL 2 Model PS2-3 EX d IIC T6/T4, SIL 2		
	All I/P positioners not available with 764's.		

TECHNICAL SPECIFICATIONS

TABLE 1 MAXIMUM PRESSURE VS. TEMPERATURE RATINGS								
Body Size Pressure Temperature								
in	(DN)	End Connection	psig	(Barg)	°F	(°C)		
3/4"	(20)	Std. "Tri-Clamp®"						
1"	(25)	or	150	(10.3)	366	(186)		
1-1/2"	(40)	Opt24 Butt Weld						

TABLE 2 MAXIMUM PRESSURE DROP - PSID (BARD) CLASS IV SEAT LEAKAGE FOR METAL SEATED; CLASS VI SEAT LEAKAGE FOR COMPOSITION SEATED										
	PORT ORIFICE SIZE ACTUATOR DIRECT ATO-FC & REVERSE ATC-FO									
LINE SIZE	PORT SIZE	UNIFIC	E SIZE	MODEL	BENC	H RANGE	META	L SEAT	СОМ	P SEAT
	OILL	INCH	(mm)	NO.	PSIG	(BARG)	PSID	(BARD)	PSID	(BARD)
3/4" (DN20)	FULL	0.500	(12.7)	C27	5-15	(0.34-1.03)	150	(10.3)	150	(10.3)
1"	FULL	0.688	(17.5)	C27	5-15	(0.34-1.03)	150	(10.3)	150	(10.3)
(DN25)	REDUCED	0.500	(12.7)	C27	5-15	(0.34-1.03)	150	(10.3)	150	(10.3)
		1 000	(05.4)	C27	5-15	(0.34-1.03)	CF	CF	114	(7.8)
1-1/2" (DN32)	FULL	1.000	(25.4)	C53	15-60	(1.03-4.14)	150	(10.3)	150	(10.3)
(BNOL)	REDUCED	0.688	(17.5)	C27	5-15	(0.34-1.03)	150	(10.3)	150	(10.3)
Cashco S 2) Excessive	 1) CF = Consult Factory where differential pressures are below 50 psid preventing seat leakage evaluation per Cashco S-1597 at 50 psid. 2) Excessive differntial pressures have been derated to the maximum allowable working pressure of 150 psig. 3) ATC-FO values for 5-15 psig bench range based on maximum 20 psig (1.4 barg) supply pressure with use of a 									

3) ATC-FO values for 5-15 psig bench range based on maximum 20 psig (1.4 barg) supply pressure with use of a positioner. ATC-FO values for 15-60 psig bench range based on maximum 75 psig (5.2 barg) supply pressure withuse of a positioner.
4) Steam service with 316L trim is 30 psid (2.1 Bard).

TABLE 3 Cv CAPACITY STRAIGHT–GLOBE $F_L = 0.9$

Body	Size	Dert Description	Cv @ % Travel										
in	(DN)	Port Description	Min.	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
3/4"	(20)	Full	0.1	0.7	1.2	1.6	2.0	2.2	2.4	2.5	2.6	2.7	2.8
4"	(05)	Full	0.2	1.0	1.6	2.1	2.8	3.4	3.7	4.3	5.1	5.7	6.0
	(25)	Opt-12 Reduced	0.1	0.7	1.2	1.6	2.0	2.3	2.7	3.0	3.3	3.4	3.5
1-1/2"	(40)	Full	0.4	2.0	3.1	4.3	5.3	6.7	8.2	9.0	10.3	11.1	11.8
1-1/2	(40)	Opt-12 Reduced	0.2	1.0	1.7	2.3	2.8	3.3	3.9	4.5	5.5	5.6	6.2

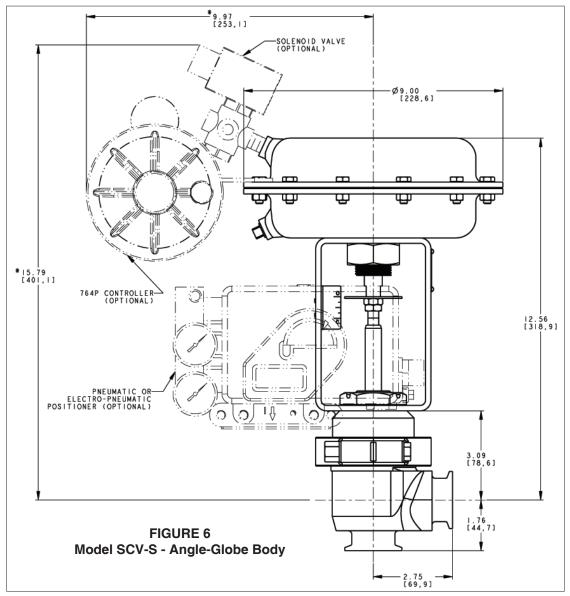
TABLE 4 Cv CAPACITY ANGLE-GLOBE $F_L = 0.9$

Body	Body Size Cv @ % Travel												
in	(DN)	Port Description	Min.	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
3/4"	(20)	Full	0.1	0.4	0.8	1.1	1.5	1.9	2.3	2.7	3.1	3.4	3.8
1"	(25)	Full	0.2	0.8	1.6	2.3	2.9	3.8	4.4	5.3	6.1	6.8	7.5
	(25)	Opt-12 Reduced	0.1	0.6	0.9	1.4	1.9	2.5	2.9	3.5	3.9	4.5	5.0
1-1/2"	(40)	Full	0.4	1.4	2.6	4.1	5.5	6.8	8.0	9.5	10.7	12.2	13.5
1-1/2	(40)	Opt-12 Reduced	0.2	0.8	1.5	2.5	3.3	4.0	4.7	5.6	6.5	7.1	8.0

TABLE 5
TRIM MATERIALS vs. DESIGNATION NUMBERS

Dout Description	Metal	Seat	GF-TFE Seat	V-TFE Seat
Part Description	S1L	S1LF	S36L	S89LF
Plug	316L SST	316L SST	316L SST	316L SST
Stem			316L SST	316L SST
Nut			SST	SST
Pin			TFE	TFE
Seat Disc			GF-TFE	V-TFE
Stem Seal	316 SST + Carbon Filled TFE	316 SST + V-TFE (Food Grade)	316 SST + Carbon Filled TFE	FKM (Food Grade)
Temperature Range	0° to +336°F -17° to +186°C	0° to +250°F -17° to +121°C	0° to +366°F -17° to +186°C	0° to +250°F -17° to +186°C
Service	Steam	Gas or Liquid	Steam	Gas or Liquid

DIMENSIONS & WEIGHTS



Weight (either body) approx 30 lbs. (13.6 kg)

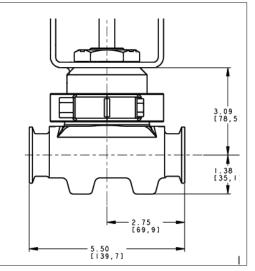


FIGURE 7 Model SCV-S - Straight-Globe Body

NOTES

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MODEL SCV-S PRODUCT CODER

S	S	POS 3	

POS POS 6&7 5

POS	POSITION 3 - BODY / PORT SIZE							
Port Size								
Body	Size	Full Port	OPT-12					
		Full For	Reduced					
in	(DN)	CODE	CODE					
3/4"	(20)	5						
1"	(25)	6	С					
1-1/2"	(40)	8	D					

POSITION 5 - END CONNECTION & PATTERN					
END CONNECTION	Straight Globe	Angle Globe			
CONNECTION	CODE	CODE			
Tri-Clamp	A	G			

Opt-24 Butt Weld

POSITION 6 & 7 - TRIM DESIGNATION NO.	CODE
THIM DESIGNATION NO.	
S1L	SL
S1LF	SF
S36L (GF-TFE Seat)	6L
S89LF (V-TFE Seat)	9F

POS

17

POSITION 11 - ACTUATOR ACTION/MODEL NO.								
Body Size	Bencl	h Set	Stem Connector	REVE ATO		DIRE ATC-		
in	psig	(Barg)	Connector	MODEL	CODE	MODEL	CODE	
ALL	5-15	(0110)	Standard		A		В	
ALL	5-15	(.34-1.0)	Opt-68: Q.D.		Т		V	
4.4.0	15.00		Standard	C27	С	C27	D	
1-1/2"	15-60	(1-4.1)	Opt-68: Q.D.		W		Y	
NOTE: S	ee Table 2	in Tech B	ulletin to confirm	n pressure	e drop lin	nits.		

Q.D. = Quick Disconnect.

	POSITION 13 - DIRECT ACTING POSITIONER with AIRSET (Bracket Mounted) (3-15 psig) 4-20 mA Specify Split Range in Special Instructions on the P.O.								
Positioner									
Model			CODE						
P5 P/P *	Gen. Purpose	1							
D20 D I/P	Gen. Purpose	С	D						
D20 A I/P * ‡	Intrinsically Safe	2	5						
D20 E I/P *** ‡	Explosion Proof	E	F						
D3 X I/P	Gen. Purpose	L	м	N	Р				
D3 I I/P	Intrinsically Safe	3	6	8	A				
D3 E I/P **** ‡	Explosion Proof	G	н	J	К				
PS2-1 I/P	Gen. Purpose	Q	R	S	Т				
PS2-2 I/P	Intrinsically Safe	&	7	9	В				
PS2-3 I/P ***	Explosion Proof	<	U	V	W				
None **		0							

Stock Item

** Actuator Assembly includes dimensions for (Namur) Mounting per IEC 60534-6-1. *** D20E & PS2-3 are not available with limit/proximity switch option. Select codes "8", "9" or "0" in Pos. 15.

D3E Positioner is not available with options. Please select code "0" in Pos. 15.

‡ PMV Positioners are not FM Approved at this time. If you need FM Approval, please specify the Siemens PS2.

> * For information on ATEX see pages 13 & 14 on the IOM.

POSITION 12 - 764P * (Bracket Mtd) -Airset (Bracket Mtd) - SOLENOID VALVE						
764P / Action	-	olenoid Valv ist on Deene	-			
764P / Action	None	120VAC 60 Hz	24 VDC			
None		CODE				
None	0	6	С			
Reverse **	2 8 E					
Reverse W/ Airset **	3	9	F			
Direct **	4	А	G			
Direct W/ Airset **	5	В	Н			
Special Construction Contact Cashco for Code						
* Refer to 764-TB for Product Code of Controller. ** Select Code 1 on Position 13 if positioner is needed. *** Solenoid rated as 4/4X only.						

POSITION 14 - GAUGE BLOCK				
Option for Positioner	Code			
None *	0			
Gauge Block **	1			
* For P5 gauge ports built in. No gauges. * For D20 E, D3 E & PS2-3 gauge block is	standard. No			
gauges. ** For D20 D, D20E & D20 A and PS2-1 & PS2-2 - gauge block with gauges.				
** For D3 X & D3 I gauge block only - no ga	auges.			

** For D3 X & D3	I gauge block	only - no gauges.	

POSITION 15 - POSITIONER OPTIONS							
	POSITIONERS		I/P TRANSDUCERS *				
Options	¹ Inductive Limit Switches	¹ Micro- switches Limit Switches	Position Transmitter	3-15 PSIG No Airset **	3-15 PSIG W/ Airset **	0-60 PSIG No Airset ***	0-60 PSIG W/ Airset
	CODE						
			COD	E			
P5			COD	Е 4	5		
P5 D3 & D20 ²	7	T	COD 9		5		
-	7	T			5		
D3 & D20 2	7	T	9		5 F	R	S

* For 0-60 Psig Transducer please contact the factory. ** If 5-15 psig Bench Range is selected in Pos. 11, codes R & S are invalid options. *** If 15-60 psig Bench Range is selected in Pos. 11, codes 4, 5, C & F are invalid options.

¹ D20E & PS2-3 are not available with limit/proximity switch option. Select codes "9" or "8".

² D3E Positioner is not available with options. Please select code "0".

POSITION 16 - OPTIONS		
Accessories	CODE	
No Handwheel	0	
Handwheel	9	

POSITION 17 - PAINTING & CLEANING			
Painting	Option	Standard Cleaning	
		CODE	
Standard	—	0	
Epoxy Painted Per Cashco Spec #S-1547	-95	1	

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12/02/20

POS

12

POS

13

н

POS

14

POS

15

POS

11

в

An "X" in POS 12 followed by a 5-digit control number overrides remaining selections. POS

16