

spirax/sarco®

L Series Control Valve Options

Description

Options of trim design, stem sealing and valve seating are available for the L Series range of two port cast iron valves. Details of the standard L Series valve range are given in TIS 1.432.

Valve Characteristics

Equal Percentage (E)

The standard characteristic for a modulating control valve. Matches the characteristics of most processes and provides good control at low flowrates.

C_v Values

Size	inches	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"
Travel	inches	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4" 1-3/16"	3/4" 1-3/16"	3/4" 1-3/16"
Equal %	C _v	4.7	7.4	11.7	18.7	29.3	42	- 74	- 117	- 187
Reduced	C _v	1.9	4.7	7.4	11.7	18.7	29.3	42*	- 74	- 117
Equal %	C _v	1.2	1.9	4.7	7.4	11.7	18.7	29.3*	- 42*	- 74
Trims	C _v	0.5	1.2	1.9	4.7	7.4	11.7	18.7*	- 29.3*	- 42*

K_{vS} Values

Size	DN	15	20	25	32	40	50	65	80	100
Travel	mm	20	20	20	20	20	20	20 30	20 30	20 30
Equal %	K _{vS}	4	6.3	10	16	25	36	- 63	- 100	- 160
Reduced	K _{vS}	1.6	4	6.3	10	16	25	36*	- 63	- 100
Equal %	K _{vS}	1	1.6	4	6.3	10	16	25*	- 36*	- 63
Trims	K _{vS}	0.4	1	1.6	4	6.3	10	16*	- 25*	- 36*

* For product compatibility 1-3/16" (30 mm) travel pneumatic actuators must be used. It is therefore recommended to use a positioner with all 2-1/2", 3" and 4" (DN65, DN80 and DN100) valves having 3/4" (20mm) travel reduced C_v (K_{vS}) trims to obtain the desired signal span to travel relationship.

Fast Opening (F)

A non-characterized valve plug intended for on-off applications only.

C_v Values

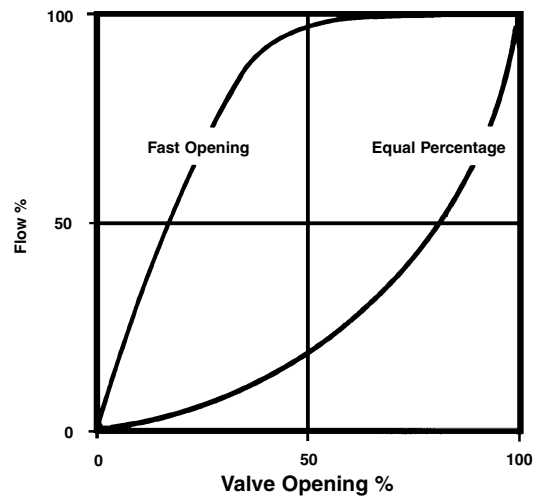
Size	inches	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"
Travel	inches	9/16"	9/16"	9/16"	9/16"	9/16"	9/16"	3/4"	3/4"	3/4"
Fast Opening	C _v	4.7	7.4	12	21	32.8	59	99	137	211

K_{vS} Values

Size	DN	15	20	25	32	40	50	65	80	100
Travel	mm	15	15	15	15	15	15	20	20	20
Fast Opening	K _{vS}	4.0	6.3	10	18	28	50	85	117	180

For product compatibility with pneumatically actuated valves 3/4" (20mm) travel pneumatic actuators must be used for valve sizes 1/2" to 2" (SDN15 to DN50), and 1-3/16" mm) travel actuators for valve sizes 2-1/2" to 4" (DN65 to DN100)

Typical Flow Characteristic Curves



Stem Sealing

Graphite Packing (H)

Design Temperature	Up to 450 °F (232 °C)
Material	Braided graphite packing
Note: Differential pressures specified as actuator TIS's do not apply for valves having graphite packed gland seals unless clearly indicated. Contact Spirax Sarco for correct actuator sizing information.	

Seat Sealing

Soft Seal (G)

Design Temperature	Up to 392 °F (200 °C)
Material	PTFE
Leakage	IEC 534-4 ANSI, Class VI

Connection Options

Refer to the valve Technical Instruction Sheet TIS 1.432 for details of valve options.

L Series Control Valve Options

Control Valve Selection Guide

Valve Size	1/2" to, 4" (DN15 to DN100)	2"
Valve Series	L series - 2 Port	L
Valve Characteristic	E = Equal Percentage F = Fast Opening	E
Body Series	A= ANSI	A
Body Material	3 = Cast Iron	3
Connections	1 = Screwed 3 = Flanged	3
Gland Sealing Option	H = Graphite packaging	
Seating Option	G = Soft Seal (PTFE)	G
C _V (US)	To be specified	C _V 42
Connection Type	To be specified	ANSI 125
		2" L E A 3 3 G C _V 42 ANSI 125

How To Order

Example: 1 - of 2" LEA 33 C_V 42 with ANSI 125 flanges.

Spare Parts

See TIS 1.434 for L Series control valve spares.