

Ball valves

Configured Item Number				Valve Body				Actuator			
Valve Size	Flow Capacity	Series		Body Connection	Body Seals & Packing	Body Material	Body Internals		Torque Rating	Software Version	Language
0100	7	SLBV	-	B	E	2	1	-	1	1C	A

Size

0050 - .5"
 0075 - .75"
 0100 - 1"
 0125 - 1.25"
 0150 - 1.5"
 0200 - 2"

Flow Capacity

1 - 1/32" Slot
 2 - 1/16" Slot
 3 - 1/8" Slot
 4 - 3/16" Slot
 5 - 1/4" Slot
 6 - 30° V
 7 - 60° V
 8 - 90° V
 9 - Round Port

Series

SLBV - SMARTLINK® Ball Valve

Body Connection

A - ANSI Flanged 150#
 B - ANSI Threaded
 X - Special [1]
 * - Actuator Only

Body Seals & Packing

E - Teflon
 X - Special [1]
 * - Actuator Only

Body Material

2 - Carbon Steel
 5 - Stainless Steel
 X - Special [1]
 * - Actuator Only

Body Internals

1 - Trim Package 1
 X - Special [1]
 * - Actuator Only

Torque Rating

1 - 300 in-lbs
 X - Special
 * - Valve Body Only

Software Version [2]

1C - Standard software
 ** - Valve Body Only

Language

A - English
 X - Special
 * - Valve Body Only

[1] Please see page 6 for all available ball valve options. These will require a special configuration.

[2] The latest version is the default.

Trim Package Options and Typical Materials:

1 - 300 Series Stainless Steel Ball, 300 Series Stainless Steel Stem and Teflon Seat Rings

Additional ball valve options for special configuration:

<u>Body Connection</u>	<u>Body Seals & Packing</u>	<u>Body Material</u>	<u>Body Internals</u>
Flat-Faced Flanged	Body Seals	Duplex	Stem & Ball
Butt Weld	Graphite	400 SS	Duplex
Extended Butt Weld	Kel-F	Alloy 20	400 SS
Clamp Ends	Peek	Monel	Alloy 20
Groove Ends	RPTFE	Bronze	Monel
Socket Weld	Carbon-Filled RPTFE	Hastelloy c	Bronze
Extended Socket Weld	UHMWPE	CF8	Hastelloy c
Tube Ends	Viton	Titanium	CF8
300# RF Flanged			Titanium
600# RF Flanged	Packing		Seat Rings
	Graphite		PFA
	RPTFE		Delrin
	Carbon-Filled RPTFE		Hostaflon
	Thrust Washer		Kel-F
	Graphite		Peek
	Hostaflon		RPTFE
	Kel-F		Carbon-Filled RPTFE
	Peek		
	RPTFE		
	Carbon-Filled RPTFE		
	UHMWPE		

Control actuator

Configured Item Number	Actuator							
Series		Connection		Torque Rating	Software Version	Language		Rotation
SL CA	-	K1	-	1	1C	A	-	2

Series
SL CA - SMARTLINK® Control Actuator

Connection
K1 - 1/2" Keyed Output Shaft
L1 - Linkage Arm
S1 - 1/2" Square Output Shaft
S2 - 3/4" Square Output Shaft

Torque Rating
1 - 300 in-lbs
X - Special

Software Version [1]
1C - Standard software

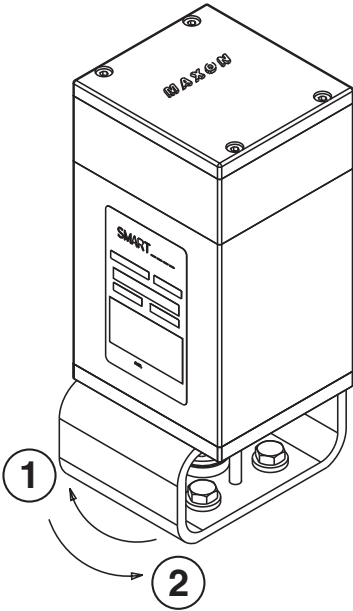
Language
A - English
X - Special

Rotation
1 - Clockwise
2 - Counter-clockwise

[1] The latest version is the default

Control actuator rotation

1. Clockwise rotation
2. Counter-clockwise rotation



Spare actuator

Configured Item Number		Actuator				
Series		Torque Rating	Software Version	Language		Rotation
SL SA	-	1	1C	A	-	2

Series

SL SA - SMARTLINK® Spare Actuator

Torque Rating

1 - 300 in-lbs
X - Special

Language

A - English
X - Special

Software Version [2]

1C - Standard software

Rotation [1]

1 - Clockwise
2 - Counter-clockwise

[1] The correct rotation must be specified.

- Butterfly Valves are always supplied in a counter-clockwise rotation.
- Ball Valves are always supplied in a counter-clockwise rotation.
- Control Actuators are customer-specific and rotation must be obtained from the actuator this spare is intended to replace.

[2] The latest version is the default.

Control interface

Configured Item #		Assembly Options														
Series		Software Version	Language	Enclosure		Alarm	Control Enable	High Position Limit	Low Position Limit	Manual Control		Power Supply	DIN Rail Assembly		High Position Command	Low Position Command
SL CI	-	1C	A	A		1	1	1	1	1	-	A	1	-	A	A

Series

SL CI - SMARTLINK® Control Interface

Software Version [1]

1C - Standard software

Language

A - English

X - Special

Enclosure

0 - None

A - 20x16x8, NEMA 4, window

X - Special

Alarm

0 - None

1 - 24VDC relay

X - Special

Control Enable

0 - None

1 - 24VDC relay

X - Special

High Position Limit

0 - None

1 - 24VDC relay

X - Special

Low Position Limit

0 - None

1 - 24VDC relay

X - Special

Manual Control

0 - None

1 - 24VDC relay

X - Special

Power Supply

0 - None

A - 24VDC relay

X - Special

* - Included with enclosure

DIN Rail Assembly

0 - None

1 - Parts mounted, factory wired

2 - Parts mounted, not wired

X - Special

* - Included with enclosure

High Position Command

0 - None

A - 120VAC

X - Special

Low Position Command

0 - None

A - 120VAC

X - Special

[1] The latest version is the default

SPECIFICATIONS

System specifications

Position accuracy	0.1 degrees (measured on the valve actuator shaft)
Position command	4-20mA isolated input; 4.8V burden @ 20mA
Position feedback	4-20mA isolated input; 400 ohm max load
Power input	24VDC +/-5%, 25W (maximum)
Duty cycle	Continuous
Relay driver outputs	Open collector, 30 VDC & 100mA max
Digital inputs	5-24 VDC @ 10mA (max)
Ambient temperature	-40°F to 158°F
Enclosure ratings	NEMA 1, IP20 (Control Interface and all DIN rail options) NEMA 4, IP66 (All standard, MAXON enclosures with factory-wired Control Interface and rail-mounted options) NEMA 4, IP66 (Valve actuator)
Output relays (optional)	Output contacts: 250 VAC/DC @ 6 amps DIN rail-mounted
Input relays (optional)	Input coil voltage: 120VAC (230VAC and 24VDC options available) DIN rail-mounted
Universal Power Supply (optional)	Power input: 115-230 VAC +/-10%, 50/60 Hz Power output: 24VDC, 2.3 amps (max)
Travel Time	14 seconds (full open to close)

Capacities - butterfly valves

Butterfly valves - 1" through 4"

Size	Minimum controllable Cv rating	Maximum Cv rating	Maximum inlet pressure (psig)	Maximum body pressure (psig)
1"	0.50	27	100	100
1.25"	0.60	70	100	100
1.5"	0.70	105	100	100
2"	1.30	190	100	100
2.5"	2.40	260	90	100
3"	3.00	360	60	100
4"	5.00	750	30	100

Fluid	Gas code	Suggested material options			Maximum fluid temperature rating	Maximum ambient temperature rating
		Body seals	Body material	Body internals		
Max Air	A	A, B	1, 2, 3, 5	1, 5	158°F	158°F
Butane Gas	D	A, B	1, 2, 3, 5	1, 5	158°F	158°F
Coke Oven Gas	E	B	1, 2, 5	1, 5	158°F	158°F
Digester Gas	F	B	5	5	158°F	158°F
Landfill Gas	G	B	5	5	158°F	158°F
Manufactured Gas	H	B	5	5	158°F	158°F
Natural Gas	I	A, B	1, 2, 3, 5	1, 5	158°F	158°F
Oxygen	J	B	3, 5	2, 6	158°F	158°F
Propane Gas	K	A, B	1, 2, 3, 5	1, 5	158°F	158°F
Propane/Butane Blend Gas	L	A, B	1, 2, 3, 5	1, 5	158°F	158°F
Refinery Gas	M	B	5	5	158°F	158°F
Sour Natural Gas	N	B	5	5	158°F	158°F
Town Gas	O	A, B	5	5	158°F	158°F

Body seals

A - Buna-N

B - Viton

Body material

1 - Cast iron

2 - Carbon steel

3 - Brass

5 - Stainless steel

Body internals

1 - Trim package 1

2 - Trim package 1, oxy clean

5 - Trim package 2

6 - Trim package 2, oxy clean

Butterfly valves - 6" through 16"

Size	Minimum controllable Cv rating	Maximum Cv rating	Maximum inlet pressure (psig)	Maximum body pressure (psig)
6"	12.5	1425	5	100
8"	22	2500	5	100
10"	35	4500	5	100
12"	50	6400	5	100
14"	67	8800	5	100
16"	88	11700	5	100

Fluid	Gas code	Suggested material options				Maximum fluid temperature rating	Maximum ambient temperature rating
		Body seals	Body material	Body internals	Gasket material		
158°F max air	A	A, B	1	1	NEOP, FIBR	158°F	158°F
350°F max air	B	B	1	1	FIBR	350°F	158°F
400°F max air	C	B	1	1	FIBR	400°F	140°F
Natural gas	I	A,B	1	1	NEOP, FIBR	158°F	158°F

Body seals

A - Buna-N
B - Viton

Body material

1 - Cast iron

Body internals

1 - Trim package 1

Gasket material

FIBR - Hi temp fiber
NEOP - Neoprene

Capacities - ball valves

Flow Coefficient - Cv vs. % open											
Size	Insert	0.0%	11.1%	22.2%*	33.3%	44.4%	55.6%	66.7%	77.8%	88.9%	100%
0.5"	1/32" Slot	0.00	0.00	0.03	0.07	0.12	0.16	0.20	0.24	0.28	0.32
	1/16" Slot	0.00	0.01	0.07	0.20	0.33	0.46	0.60	0.73	0.86	1.00
	1/8" Slot	0.00	0.01	0.10	0.36	0.61	0.86	1.10	1.40	1.60	1.80
	30°V	0.00	0.01	0.11	0.24	0.36	0.56	0.84	1.10	1.60	2.10
	60°V	0.00	0.01	0.12	0.33	0.60	0.84	1.40	2.00	3.10	4.40
	Round Port	0.00	0.15	0.29	0.46	0.70	1.10	1.80	2.60	4.30	6.40
0.75"	1/16" Slot	0.00	0.01	0.06	0.24	0.40	0.56	0.73	0.90	1.00	1.20
	1/8" Slot	0.00	0.01	0.14	0.39	0.65	0.90	1.20	1.40	1.70	1.90
	30°V	0.00	0.01	0.11	0.24	0.41	0.67	1.00	1.40	1.90	2.60
	60°V	0.00	0.01	0.13	0.36	0.55	1.00	1.50	2.30	3.60	5.00
	Round Port	0.00	0.21	0.43	0.70	1.10	1.60	2.60	4.00	6.40	9.60
1"	1/16" Slot	0.00	0.03	0.10	0.40	0.67	0.94	1.20	1.50	1.70	1.90
	3/16" Slot	0.00	0.03	0.22	0.82	1.40	1.90	2.50	3.10	3.50	4.00
	30°V	0.00	0.03	0.21	0.56	1.00	1.60	2.40	3.40	4.60	6.20
	60°V	0.00	0.03	0.30	0.78	1.20	2.30	3.60	5.30	8.30	11.60
	90°V	0.00	0.03	0.48	1.20	2.30	3.50	5.40	7.70	10.80	12.10
	Round Port	0.00	0.58	1.20	1.90	2.80	4.30	7.00	10.50	17.00	26.00
1.25"	3/16" Slot	0.00	0.05	0.38	1.40	2.40	3.40	4.40	5.40	6.20	6.90
	30°V	0.00	0.05	0.39	1.00	1.80	2.90	4.40	6.40	8.60	11.40
	60°V	0.00	0.06	0.48	1.30	2.00	3.70	5.80	8.50	13.40	18.70
	90°V	0.00	0.06	0.78	2.00	3.70	5.70	8.80	12.50	17.50	19.70
	Round Port	0.00	0.91	1.80	3.00	4.40	6.70	10.90	16.40	26.60	40.60
1.5"	3/16" Slot	0.00	0.05	0.47	1.80	3.00	4.20	5.40	6.80	7.70	8.60
	30°V	0.00	0.05	0.41	1.20	2.10	3.50	5.20	7.60	10.30	13.70
	60°V	0.00	0.06	0.57	1.70	3.00	5.60	9.10	13.20	19.80	28.40
	90°V	0.00	0.06	1.00	2.80	4.50	8.10	13.40	19.70	30.90	47.10
	Round Port	0.00	1.50	3.00	4.80	7.20	11.00	18.00	27.00	44.00	65.50
2"	1/4" Slot	0.00	0.05	0.75	2.90	4.80	6.80	8.70	10.80	12.30	13.80
	30°V	0.00	0.05	0.55	1.70	3.40	5.70	8.30	12.10	16.60	22.20
	60°V	0.00	0.06	0.70	2.60	4.90	9.30	15.50	22.20	32.10	47.20
	90°V	0.00	0.06	0.88	3.30	6.10	11.70	19.40	27.50	40.10	59.00
	Round Port	0.00	2.20	4.30	7.00	10.50	16.20	26.40	39.60	64.00	96.00

*Select valves for minimum controllable Cv at 22°. Errors may become substantial below this point.