



## Simple Set — Submittal/Technical Data

03/20/20

1/2" to 2". — Fail Safe and Non-Fail Safe — On/Off, Floating and Modulating

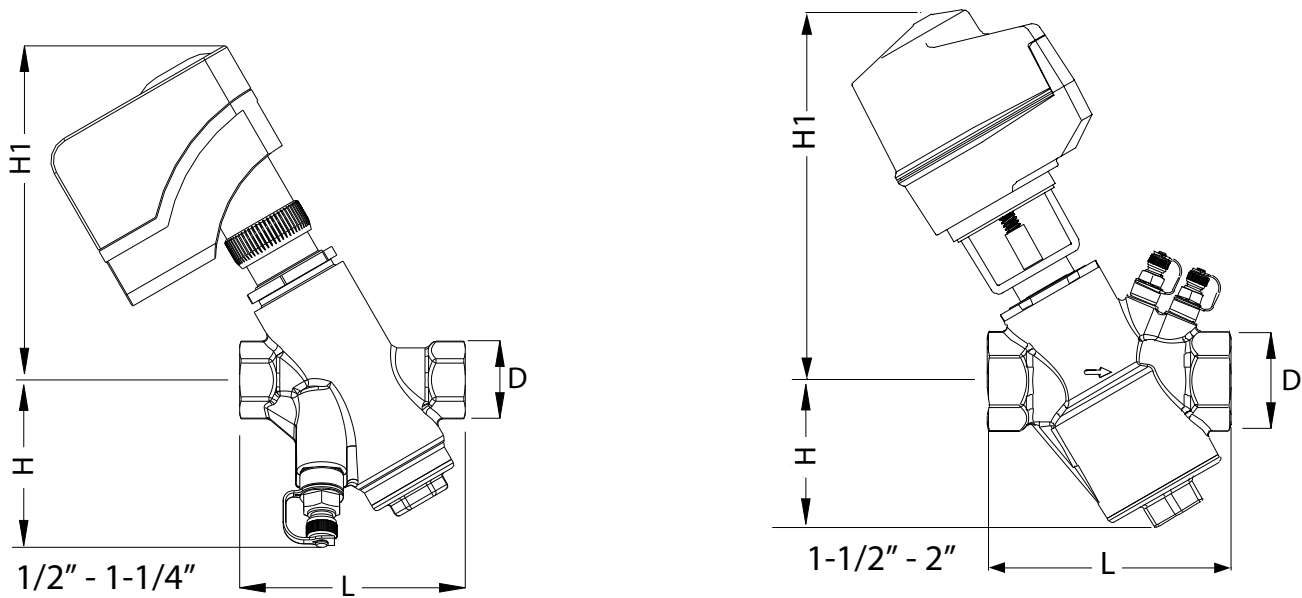
# Simple Set - Valve Specifications

### Technical Specifications - Valve

Valve Body		1/2" - 2"	
Service		Hot Water, Chilled Water, 50/50 Glycol Solutions	
Cold Working Pressure		375 PSI (25 Bar)	
Media Temp. Range		32°F to 248°F (0°C to 120°C)	
Operational ΔP	Minimum	Varies by size. See page SS-7 & SS-8 (in sales brochure)	
Operational ΔP	Maximum	58 psid (400kPa)	
Maximum Close-Off Pressure		58 psi (400kPa)	
Valve Operation		Push Down to Close, Normally Open	
Shut-Off Leakage		ANSI Class IV (0.01%)	
Stroke		1/2" to 1 1/4" = 0.22" (5.5mm) 1.5" to 2" = 0.59" (15mm)	
End Connections		NPT Threaded	
Materials	Body Material	Brass	
	Flow Regulation Unit	PPS 40% Glass	
	Diaphragm	HNBR	
	Spring	Stainless Steel	
	O-Rings	EPDM	
Weights (lbs.)	Valve Body Only	1/2"	1.98 lb., .90 kg
		3/4"	1.98 lb., .90 kg
		1"	2.21 lb., 1.00 kg
		1-1/4"	3.35 lb., 1.60 kg
		1-1/2"	6.34 lb., 2.90 kg
		2"	8.70 lb., 4.00 kg

Disclaimer - The performance specifications are nominal and conform to acceptable industry standards.  
For application at conditions beyond these specifications, consult the local Bray office.  
Bray, Inc. shall not be liable for damages resulting from misapplication or misuse of its products.

# Simple Set - Valve/Actuator Dimensions



## Technical data

Valve Size			1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Flow Rate	Liters per hour (l/h)	Low Flow Cartridge	75 - 700	77 - 738				
		Std. Flow Cartridge	329 - 1649	361 - 1801	400 - 2051	729 - 3000	650 - 8199	650 - 14740
	Gallons per minute (gpm)	Low Flow Cartridge	.33 - 3.08	.34 - 3.25				
		Std. Flow Cartridge	1.45 - 7.26	1.60 - 7.90	1.76 - 9.03	3.21 - 13.21	2.86 - 36.10	2.86 - 64.90
Dimension in., (mm)	L		3.62, (92)	3.62, (92)	3.78, (96)	5.04, (128)	5.71, (145)	6.34, (161)
	H		2.68, (68)	2.68, (68)	2.68, (68)	3.03, (77)	3.43, (87)	3.70, (94)
	H1		7.88, (200)	7.88, (200)	7.88, (200)	6.04, (153)	16.00, (406)	15.25, (387)
	D		1.18, (30)	1.42, (36)	1.73, (44)	2.05, (52)	2.33, (59)	3.07, (78)
Weight	lbs, (kg)		2.5, (1.14)	2.5, (1.14)	2.6, (1.18)	4.1, (1.86)	7.9, (3.60)	10.3, (4.70)

Dimensions may vary, depending on the actuator.  
 Dimensions are shown for the largest actuator currently available.  
 Dimensions are shown in inches and are approximate.

# Simple Set - Model Number Matrix

SS = Simple Set	Sample Model Number	SS	1	N	S	x	/PA24-27
Prefix: Simple Set							
Size of Valve							
End Connections - NPT							
Flow Range Pressure Cartridge - (H) High, (L) Low or (S) Standard							
Flow Setting GPM. See Charts on Page SS-7							
Actuator Selection							

# Simple Set - Flow Rate Charts

1/2"		1/2" Standard Flow Rate Cartridge		
Model Number	Pre-Set	Min. PSI	Flow l/h	Flow GPM
SS-05-N-S-1.5	0.3	2.3	329.3	1.45
SS-05-N-S-1.6	0.4	2.3	372.5	1.64
SS-05-N-S-2.0	0.6	2.4	458.8	2.02
SS-05-N-S-2.4	0.8	2.4	545.1	2.4
SS-05-N-S-2.8	1	2.5	629.1	2.77
SS-05-N-S-3.2	1.2	2.6	715.4	3.15
SS-05-N-S-3.5	1.4	2.6	799.5	3.52
SS-05-N-S-3.9	1.6	2.6	883.5	3.89
SS-05-N-S-4.3	1.8	2.6	967.6	4.26
SS-05-N-S-4.6	2	2.6	1049.3	4.62
SS-05-N-S-5.0	2.2	2.6	1131.1	4.98
SS-05-N-S-5.3	2.4	2.6	1210.6	5.33
SS-05-N-S-5.7	2.6	2.6	1287.8	5.67
SS-05-N-S-6.0	2.8	2.6	1360.5	5.99
SS-05-N-S-6.3	3	2.6	1430.9	6.3
SS-05-N-S-6.6	3.2	2.6	1492.2	6.57
SS-05-N-S-6.8	3.4	2.6	1544.4	6.8
SS-05-N-S-7.0	3.6	2.6	1592.1	7.01
SS-05-N-S-7.2	3.8	2.6	1628.5	7.17
SS-05-N-S-7.3	4	2.6	1648.9	7.26

1/2"		1/2" Low Flow Rate Cartridge		
Model Number	Pre-Set	Min. PSI	Flow l/h	Flow GPM
SS-05-N-L-0.3	0.3	2.2	75.0	0.33
SS-05-N-L-0.4	0.4	2.2	81.8	0.36
SS-05-N-L-0.5	0.6	2.2	106.7	0.47
SS-05-N-L-0.6	0.8	2.2	134.0	0.59
SS-05-N-L-0.7	1	2.5	168.1	0.74
SS-05-N-L-0.8	1.2	2.5	190.8	0.84
SS-05-N-L-1.0	1.4	2.5	222.6	0.98
SS-05-N-L-1.1	1.6	2.5	256.7	1.13
SS-05-N-L-1.3	1.8	2.5	290.7	1.28
SS-05-N-L-1.4	2	2.5	327.1	1.44
SS-05-N-L-1.6	2.2	2.5	365.7	1.61
SS-05-N-L-1.8	2.4	2.5	404.3	1.78
SS-05-N-L-2.0	2.6	2.5	442.9	1.95
SS-05-N-L-2.1	2.8	2.5	481.5	2.12
SS-05-N-L-2.3	3	2.5	520.1	2.29
SS-05-N-L-2.5	3.2	2.5	556.5	2.45
SS-05-N-L-2.6	3.4	2.5	592.8	2.61
SS-05-N-L-2.8	3.6	2.5	629.1	2.77
SS-05-N-L-3.0	3.8	2.5	672.3	2.96
SS-05-N-L-3.1	4	2.5	699.5	3.08

3/4"		3/4" Standard Flow Cartridge		
Model Number	Pre-Set	Min. PSI	Flow l/h	Flow GPM
SS-75-N-S-1.6	0.3	2.5	361.1	1.59
SS-75-N-S-1.8	0.4	2.5	402.0	1.77
SS-75-N-S-2.1	0.6	2.5	483.8	2.13
SS-75-N-S-2.5	0.8	2.5	565.5	2.49
SS-75-N-S-2.9	1	2.5	649.6	2.86
SS-75-N-S-3.2	1.2	2.6	726.8	3.2
SS-75-N-S-3.6	1.4	2.6	810.8	3.57
SS-75-N-S-4.0	1.6	2.6	913.0	4.02
SS-75-N-S-4.4	1.8	2.6	1006.2	4.43
SS-75-N-S-4.8	2	2.6	1099.3	4.84
SS-75-N-S-5.3	2.2	2.6	1194.7	5.26
SS-75-N-S-5.7	2.4	2.6	1290.1	5.68
SS-75-N-S-6.1	2.6	2.6	1385.5	6.1
SS-75-N-S-6.5	2.8	2.6	1476.3	6.5
SS-75-N-S-6.9	3	2.6	1560.3	6.87
SS-75-N-S-7.2	3.2	2.6	1633.0	7.19
SS-75-N-S-7.4	3.4	2.6	1685.3	7.42
SS-75-N-S-7.6	3.6	2.6	1730.7	7.62
SS-75-N-S-7.8	3.8	2.6	1787.5	7.87
SS-75-N-S-7.9	4	2.6	1801.1	7.93

3/4"		3/4" Low Flow Rate Cartridge		
Model Number	Pre-Set	Min. PSI	Flow l/h	Flow GPM
SS-75-N-L-0.3	0.3	2.3	77.2	0.34
SS-75-N-L-0.4	0.4	2.3	81.8	0.36
SS-75-N-L-0.5	0.6	2.3	106.7	0.47
SS-75-N-L-0.6	0.8	2.3	136.3	0.6
SS-75-N-L-0.7	1	2.3	168.1	0.74
SS-75-N-L-0.9	1.2	2.6	197.6	0.87
SS-75-N-L-1.0	1.4	2.6	227.1	1.0
SS-75-N-L-1.2	1.6	2.6	268.0	1.18
SS-75-N-L-1.3	1.8	2.6	304.3	1.34
SS-75-N-L-1.5	2	2.6	345.2	1.52
SS-75-N-L-1.7	2.2	2.6	388.4	1.71
SS-75-N-L-1.9	2.4	2.6	431.5	1.9
SS-75-N-L-2.1	2.6	2.6	474.7	2.09
SS-75-N-L-2.3	2.8	2.6	517.8	2.28
SS-75-N-L-2.5	3	2.6	567.8	2.5
SS-75-N-L-2.6	3.2	2.6	599.6	2.64
SS-75-N-L-2.8	3.4	2.6	635.9	2.8
SS-75-N-L-3.0	3.6	2.6	672.3	2.96
SS-75-N-L-3.1	3.8	2.6	706.4	3.11
SS-75-N-L-3.3	4	2.6	738.2	3.25

See [braycommercialdivision.com](http://braycommercialdivision.com) for Specific Flow Rate Settings Calculator

# Simple Set - Flow Rate Charts

1"		1" Standard Flow Rate Cartridge		
Model Number	Pre-Set	Min. PSI	Flow l/h	Flow GPM
SS-1-N-S-1.8	0.3	3.9	399.7	1.76
SS-1-N-S-2.0	0.4	3.9	442.9	1.95
SS-1-N-S-2.3	0.6	3.9	531.5	2.34
SS-1-N-S-2.8	0.8	3.9	629.1	2.77
SS-1-N-S-3.2	1	3.9	729.1	3.21
SS-1-N-S-3.7	1.2	3.9	835.8	3.68
SS-1-N-S-4.2	1.4	3.9	944.8	4.16
SS-1-N-S-4.7	1.6	3.9	1056.1	4.65
SS-1-N-S-5.2	1.8	3.9	1169.7	5.15
SS-1-N-S-5.6	2	4.1	1281.0	5.64
SS-1-N-S-6.1	2.2	4.1	1390.0	6.12
SS-1-N-S-6.6	2.4	4.1	1494.5	6.58
SS-1-N-S-7.0	2.6	4.1	1596.7	7.03
SS-1-N-S-7.5	2.8	4.1	1692.1	7.45
SS-1-N-S-7.8	3	4.1	1780.7	7.84
SS-1-N-S-8.2	3.2	4.2	1857.9	8.18
SS-1-N-S-8.5	3.4	4.2	1919.2	8.45
SS-1-N-S-8.7	3.6	4.2	1969.2	8.67
SS-1-N-S-8.9	3.8	4.2	2016.9	8.88
SS-1-N-S-9.0	4	4.2	2050.9	9.03

1-1/4"		1-1/4" Standard Flow Rate Cartridge		
Model Number	Pre-Set	Min. PSI	Flow l/h	Flow GPM
SS-125-N-S-3.2	0.3	2.9	729.1	3.21
SS-125-N-S-3.6	0.4	2.9	808.6	3.56
SS-125-N-S-4.3	0.6	2.9	974.4	4.29
SS-125-N-S-5.1	0.8	2.9	1147.0	5.05
SS-125-N-S-5.8	1	2.9	1319.6	5.81
SS-125-N-S-6.6	1.2	2.9	1494.5	6.58
SS-125-N-S-7.3	1.4	2.9	1667.1	7.34
SS-125-N-S-8.1	1.6	3	1835.2	8.08
SS-125-N-S-8.8	1.8	3	1996.4	8.79
SS-125-N-S-9.5	2	3.1	2150.9	9.47
SS-125-N-S-10.1	2.2	3.1	2294.0	10.1
SS-125-N-S-10.7	2.4	3.2	2428.0	10.69
SS-125-N-S-11.2	2.6	3.2	2548.3	11.22
SS-125-N-S-11.7	2.8	3.3	2655.1	11.69
SS-125-N-S-12.1	3	3.3	2750.5	12.11
SS-125-N-S-12.5	3.2	3.4	2830.0	12.46
SS-125-N-S-12.7	3.4	3.4	2893.6	12.74
SS-125-N-S-13.0	3.6	3.5	2943.5	12.96
SS-125-N-S-13.1	3.8	3.5	2975.3	13.1
SS-125-N-S-13.2	4	3.5	3000.3	13.21

1-1/2"		1-1/2" Standard Flow Rate Cartridge		
Model Number	Pre-Set	Min. PSI	Flow l/h	Flow GPM
SS-150-N-S-2.9	0.3	2.2	649.6	2.86
SS-150-N-S-3.4	0.4	2.2	772.2	3.40
SS-150-N-S-5.5	0.6	2.3	1249.2	5.50
SS-150-N-S-7.9	0.8	2.3	1794.3	7.90
SS-150-N-S-10.1	1	2.3	2294.0	10.10
SS-150-N-S-12.1	1.2	2.3	2748.2	12.10
SS-150-N-S-14.0	1.4	2.4	3179.7	14.00
SS-150-N-S-15.9	1.6	2.5	3611.3	15.90
SS-150-N-S-18.0	1.8	2.6	4088.2	18.00
SS-150-N-S-20.2	2	2.7	4587.9	20.20
SS-150-N-S-22.6	2.2	2.9	5133.0	22.60
SS-150-N-S-25.1	2.4	3.1	5700.8	25.10
SS-150-N-S-27.5	2.6	3.4	6245.9	27.50
SS-150-N-S-29.7	2.8	3.6	6745.6	29.70
SS-150-N-S-31.7	3	3.9	7199.9	31.70
SS-150-N-S-33.3	3.2	4.1	7563.3	33.30
SS-150-N-S-34.6	3.4	4.2	7858.5	34.60
SS-150-N-S-35.5	3.6	4.2	8062.9	35.50
SS-150-N-S-36.0	3.8	4.2	8176.5	36.00
SS-150-N-S-36.1	4	4.2	8199.2	36.10

2"		2" Standard Flow Rate Cartridge		
Model Number	Pre-Set	Min. PSI	Flow l/h	Flow GPM
SS-2-N-S-2.9	0.3	4.4	649.6	2.86
SS-2-N-S-4.5	0.4	4.4	1022.1	4.50
SS-2-N-S-9.5	0.6	4.4	2157.7	9.50
SS-2-N-S-13.8	0.8	4.4	3134.3	13.80
SS-2-N-S-18.1	1	4.4	4111.0	18.10
SS-2-N-S-22.4	1.2	4.4	5087.6	22.40
SS-2-N-S-26.6	1.4	4.4	6041.5	26.60
SS-2-N-S-30.6	1.6	4.4	6950.0	30.60
SS-2-N-S-34.3	1.8	4.4	7790.4	34.30
SS-2-N-S-37.8	2	4.4	8585.3	37.80
SS-2-N-S-41.3	2.2	4.4	9380.3	41.30
SS-2-N-S-44.9	2.4	4.5	10197.9	44.90
SS-2-N-S-48.5	2.6	4.6	11015.5	48.50
SS-2-N-S-52.2	2.8	4.7	11855.9	52.20
SS-2-N-S-55.6	3	4.8	12628.1	55.60
SS-2-N-S-58.4	3.2	4.9	13264.1	58.40
SS-2-N-S-60.6	3.4	4.9	13763.8	60.60
SS-2-N-S-62.4	3.6	5.0	14172.6	62.40
SS-2-N-S-63.9	3.8	5.0	14513.3	63.90
SS-2-N-S-64.9	4	5.1	14740.4	64.90

See [braycommercialdivision.com](http://braycommercialdivision.com) for Specific Flow Rate Settings Calculator