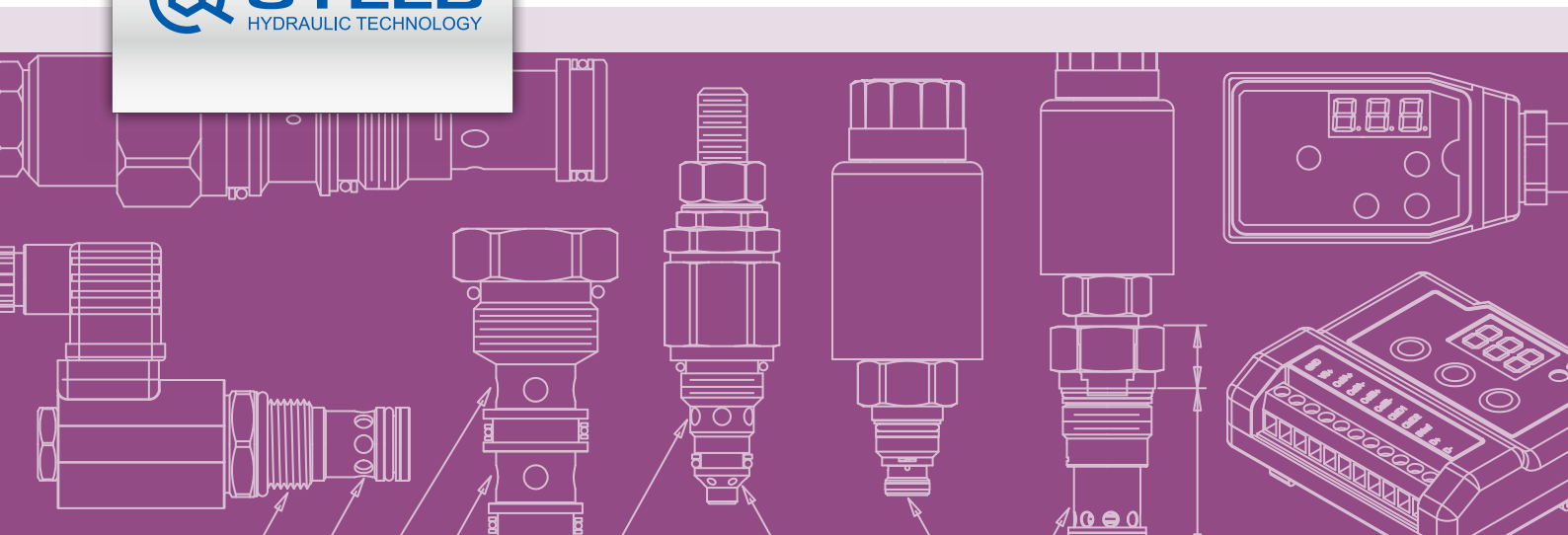




Cartridge Valve

Solenoid Operated
Pressure Control
Flow Control
Directional
Load Holding
Logic Element
Circuit Saver
Electronic Amplifier P-C Board
Filter
Cavity Plug



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Cartridge Valve

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Operating Recommendation

· Fluid Viscosity Recommendations

15 to 380 cSt

· Fluid Cleanliness Recommendations

Specified in accordance with ISO 4406:1999; 4µm / 6µm / 14µm

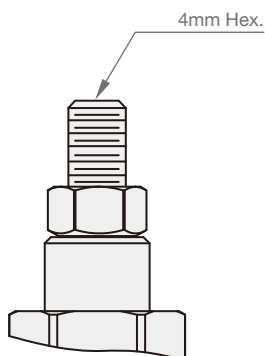
· Fluid Temperature Recommendations

Buna N (Nitrile) : -35°C to 90°C

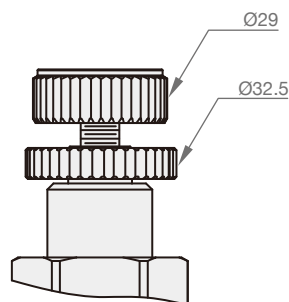
Viton : -20°C to 120°C

CONTROL MANNER

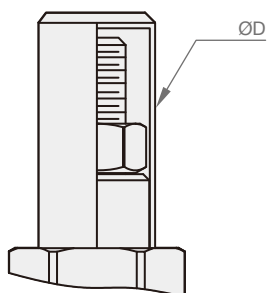
► A : Adjustable Screw



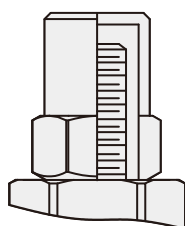
► B : Control Knob



► C : Tamper Resistant Cover



For Line Mount Type

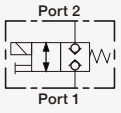
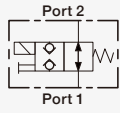
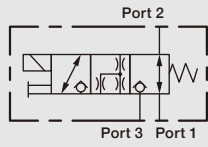
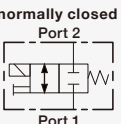
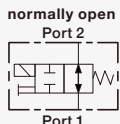
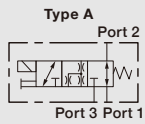
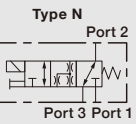


For SAE Cavity Type

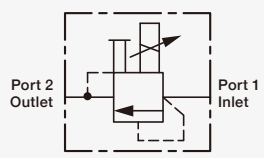
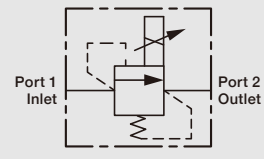
ØD	Size	Cavity
Ø19	02	ST10, ST11, ST13
Ø25	03	ST2, ST3, ST5
Ø30	06	ST16, ST17
Ø40	08	ST18, ST19

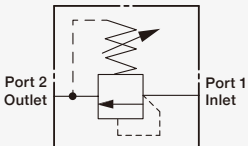
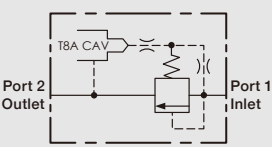
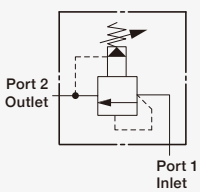
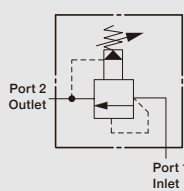
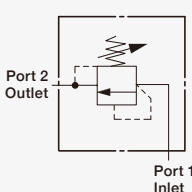
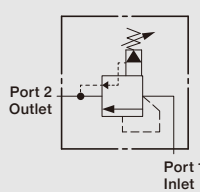
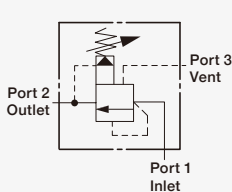
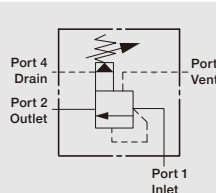
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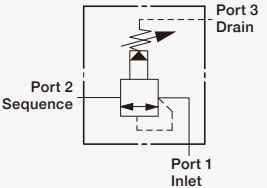
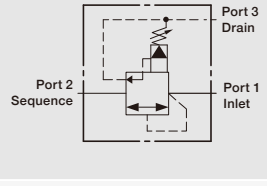
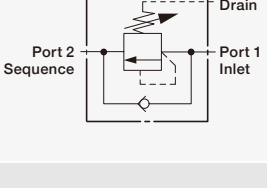
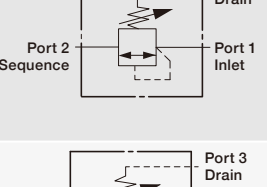
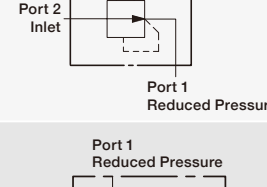
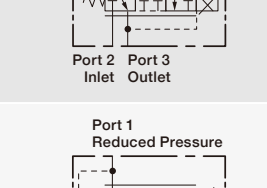
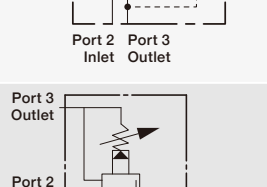
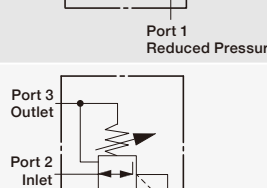
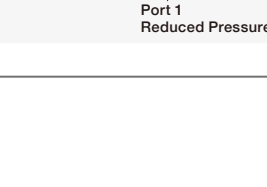
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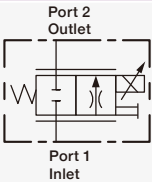
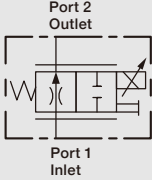
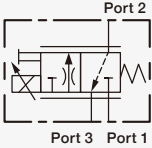
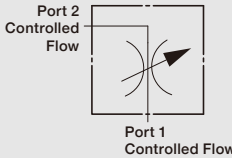
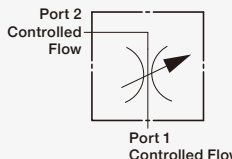
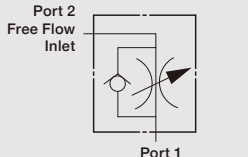
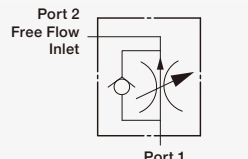
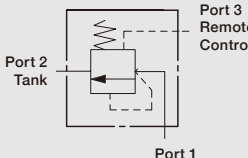
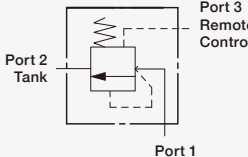
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						A	B	U	M
22	Solenoid-Operated, 2-position 2-way, Poppet Valve	 	SDTA-02	ST13A	40				✓
24	Solenoid-Operated, 2-position 3-way, 1 to 2, Shift to 2 to 3, Poppet Valve		SDWA-02	ST11A	30				✓
26	Solenoid-Operated, 2-position 2-way, Spool Valve	 	SDLA-02	ST13A	45				✓
28	Solenoid-Operated, 2-position 3-way, Spool Valve	 	SDMA-02	ST11A	45				✓

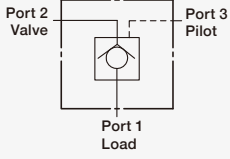
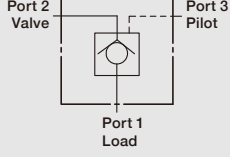
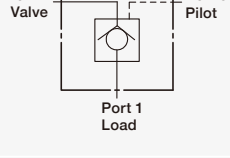
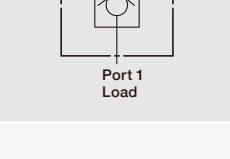
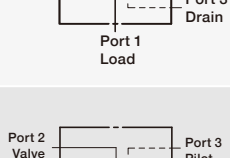
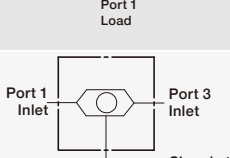
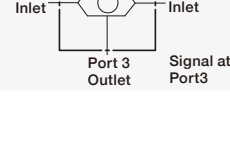
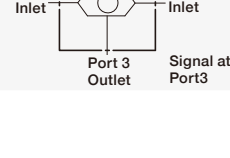
Pressure Control

Page No.	Function	Symbols	Model No.	Cavity	Capacity (l/min)	Control Manner			
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30	Pilot Stage, Proportional, Relief		SRBP-01	ST8A	1				✓
32	Pilot Stage, Proportional, Inverse Relief		SRBN-01	ST8A	1				✓

Page No.	Function	Symbols	Model No.	Cavity	Capacity (l/min)	Control Manner		
						A	B	U
34	Pilot Stage, Direct-acting Relief Valve - Pilot Capacity		SRBC-02	ST10A	1	✓	✓	
			SRBA-03	ST3A	2	✓	✓	
36	Main Stage, Pilot Operated Relief with Integral ST8A Cavity		SRPC-02-8	ST10A	95			
			SRPC-03-8	ST3A	200			
			SRPC-06-8	ST16A	380			
			SRPC-08-8	ST18A	760			
38	Pilot Operated Relief Valve		SRPC-02	ST10A	95	✓	✓	
			SRPC-03	ST3A	200	✓	✓	
			SRPC-06	ST16A	380	✓	✓	
			SRPC-08	ST18A	760	✓	✓	
40	Fast-acting, Pilot Operated Relief		SRPE-02	ST10A	95	✓	✓	
			SRPE-03	ST3A	200	✓	✓	
			SRPE-06	ST16A	380	✓	✓	
			SRPE-08	ST18A	760	✓	✓	
42	Direct-acting Relief Valve		SRDA-01	ST162A	28.4	✓		
			SRDA-02	ST10A	95	✓		
			SRDA-03	ST3A	200	✓		
			SRDA-06	ST16A	380	✓		
			SRDA-08	ST18A	760	✓		
44	Kick-down, Pilot-operated, Balanced Piston Relief Valve		SRQB-02	ST10A	95	✓	✓	
			SRQB-03	ST3A	200	✓	✓	
			SRQB-06	ST16A	380	✓	✓	
			SRQB-08	ST18A	760	✓	✓	
46	Pilot Operated Relief Valve with Vent		SRVA-01	ST163A	28.4	✓	✓	
			SRVA-02	ST11A	60	✓	✓	
			SRVA-03	ST2A	120	✓	✓	
			SRVA-06	ST17A	240	✓	✓	
			SRVA-08	ST19A	480	✓	✓	
48	Ventable, Pilot-operated, Balanced Piston Relief Valve with Drain to Port 4		SRVD-02	ST21A	60	✓	✓	
			SRVD-03	ST22A	120	✓	✓	
			SRVD-06	ST23A	240	✓	✓	
			SRVD-08	ST24A	480	✓	✓	

Page No.	Function	Symbols	Model No.	Cavity	Capacity (l/min)	Control Manner			
						A	B	U	M
50	Pilot Operated Sequence Valve		SRSC-02	ST11A	60	✓	✓		
			SRSC-03	ST2A	120	✓	✓		
			SRSC-06	ST17A	240	✓	✓		
			SRSC-08	ST19A	480	✓	✓		
52	Kick-down, Pilot-operated, Balanced Piston Sequence Valve		SSQB-02	ST11A	60	✓	✓		
			SSQB-03	ST2A	120	✓	✓		
			SSQB-06	ST17A	240	✓	✓		
			SSQB-08	ST19A	480	✓	✓		
54	Direct-acting Sequence Valve with Reverse Flow Check		SSCA-02	ST11A	60	✓	✓		
			SSCA-03	ST2A	120	✓	✓		
			SSCA-06	ST17A	240	✓	✓		
			SSCA-08	ST19A	480	✓	✓		
56	Direct-acting Sequence Valve without Reverse Flow Check		SSXA-02	ST11A	60	✓	✓		
			SSXA-03	ST2A	120	✓	✓		
58	Pilot Operated Reducing Valve		SPBB-02	ST11A	40	✓	✓		
			SPBB-03	ST2A	80	✓	✓		
			SPBB-06	ST17A	160	✓	✓		
			SPBB-08	ST19A	320	✓	✓		
60	Proportional, Direct Acting Pressure Reducing / Relieving, Low Leakage		SPRP-02	ST11A	20				✓
62	Proportional, Direct Acting Pressure Reducing / Relieving, Better Dynamic Response		SPRL-02	ST11A	20				✓
64	Pilot Operated Reducing / Relieving Valve		SPPB-02	ST11A	40	✓	✓		
			SPPB-03	ST2A	80	✓	✓		
			SPPB-06	ST17A	160	✓	✓		
			SPPB-08	ST19A	320	✓	✓		
66	Direct-acting Pressure Reducing / Relieving Valve		SPRB-02	ST11A	40	✓	✓		
			SPRB-03	ST2A	80	✓	✓		
			SPRB-06	ST17A	160	✓	✓		
			SPRB-08	ST19A	320	✓	✓		

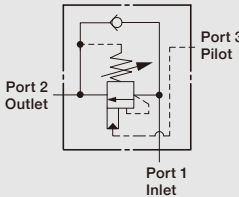
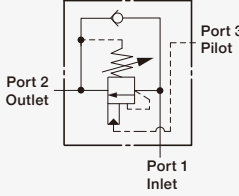
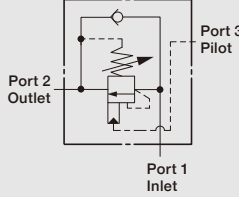
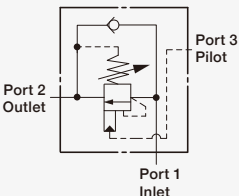
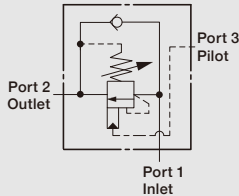
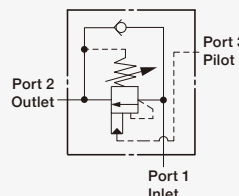
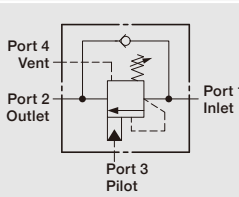
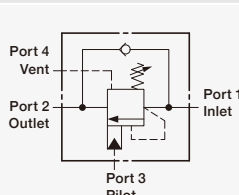
Page No.	Function	Symbols	Model No.	Cavity	Capacity (l/min)	Control Manner			
						A	B	U	M
68	Proportional, Normally Closed, Flow Control Valve		SFPC-02	ST13A	40				✓
70	Proportional, Normally Open, Flow Control Valve		SFPH-02	ST13A	28				✓
72	Proportional, 3-way, Flow Control Valve		SFMA-02	ST11A	34				✓
74	Fully Adjustable Needle Valve		SNFC-01	ST162A	18.9	✓	✓		
			SNFC-02	ST13A	25	✓	✓		
			SNFC-03	ST5A	50	✓	✓		
			SNFC-06	ST16A	100	✓	✓		
			SNFC-08	ST18A	200	✓	✓		
76	Fully Adjustable and High Capacity Needle Valve		SNFD-02	ST13A	80	✓	✓		
			SNFD-03	ST5A	160	✓	✓		
			SNFD-06	ST16A	320	✓	✓		
			SNFD-08	ST18A	500	✓	✓		
78	Fully Adjustable Needle Valve (with Free Flow Check Valve)		SNCB-02	ST13A	25	✓	✓		
			SNCB-03	ST5A	50	✓	✓		
			SNCB-06	ST16A	100	✓	✓		
			SNCB-08	ST18A	200	✓	✓		
80	Pressure Compensated Fully Adjustable Flow Control Valve (with Free Flow Check Valve)		SFDA-02	ST13A	23	✓	✓		
			SFDB-03	ST5A	45	✓	✓		
			SFDA-06	ST16A	95	✓	✓		
			SFDA-08	ST18A	200	✓	✓		
82	Normally Closed, Modulating Element with Pilot Source from Port 1		SLRA-02	ST11A	60	✓		✓	
			SLRA-03	ST2A	120	✓		✓	
			SLRA-06	ST17A	240	✓		✓	
			SLRA-08	ST19A	480	✓		✓	
84	Normally Closed, Modulating Element		SLRC-02	ST11A	60	✓		✓	
			SLRC-03	ST2A	120	✓		✓	
			SLRC-06	ST17A	240	✓		✓	
			SLRC-08	ST19A	480	✓		✓	

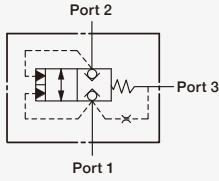
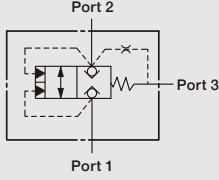
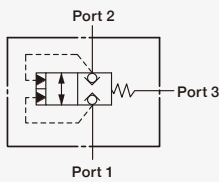
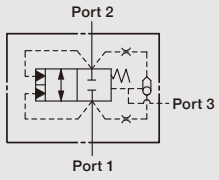
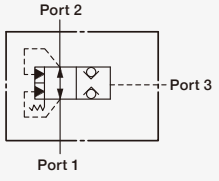
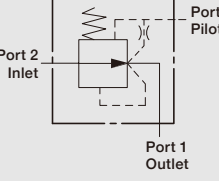
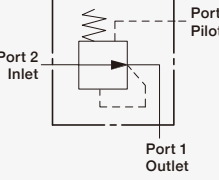
Page No.	Function	Symbols	Model No.	Cavity	Capacity (l/min)	Control Manner				
						A	B	U	PN	PS
86	Pilot-to-Open Check Valve with Standard Pilot & POM Seat		SCKA-02	ST11A	60	✓		✓		
			SCKA-03	ST2A	120	✓		✓		
			SCKA-06	ST17A	240	✓		✓		
			SCKA-08	ST19A	480	✓		✓		
88	Pilot-to-Open Check Valve with Standard Pilot		SCKB-01	ST163A	28.4	✓		✓		
			SCKB-02	ST11A	60	✓		✓		
			SCKB-03	ST2A	120	✓		✓		
			SCKB-06	ST17A	240	✓		✓		
90	Pilot-to-Open Check Valve with Sealed Pilot & POM Seat		SCKC-02	ST11A	60	✓		✓		
			SCKC-03	ST2A	120	✓		✓		
			SCKC-06	ST17A	240	✓		✓		
			SCKC-08	ST19A	480	✓		✓		
92	Pilot-to-Open Check Valve with Sealed Pilot		SCKD-02	ST11A	60	✓		✓		
			SCKD-03	ST2A	120	✓		✓		
			SCKD-06	ST17A	240	✓		✓		
			SCKD-08	ST19A	480	✓		✓		
94	Vented, Pilot-to-Open Check Valve with External Pilot Port		SCKF-02	ST11A	60				✓	
			SCKF-03	ST2A	120				✓	
			SCKF-06	ST17A	240				✓	
			SCKF-08	ST19A	480				✓	
96	Vented, Pilot-to-Open Check Valve		SCVV-02	ST21A	60	✓		✓		
			SCVV-03	ST22A	120	✓		✓		
			SCVV-06	ST23A	240	✓		✓		
			SCVV-08	ST24A	480	✓		✓		
98	Shuttle Valve		SCSD-02	ST11A	10			✓		
			SCSB-02	ST11A	10			✓		

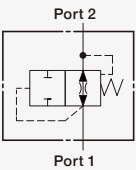
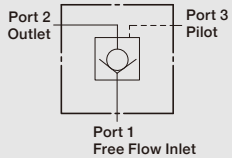
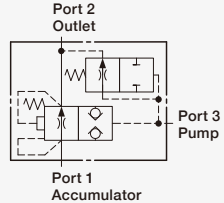
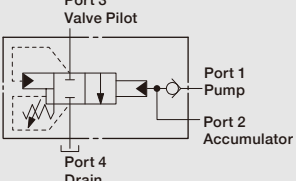
Page No.	Function	Symbols	Model No.	Cavity	Capacity (l/min)	Control Manner				
						A	B	U	PN	PS
100	Shuttle Valve, with External Port		SCSA-02	ST13A	10					✓
			SCSC-02	ST13A	10					✓
102	Check Valve, Free Flow Port1 to Port2		SCXA-02	ST13A	80			✓		
			SCXA-03	ST5A	160			✓		
			SCXA-06	ST16A	320			✓		
			SCXA-08	ST18A	640			✓		
104	Check Valve, Free Flow Port2 to Port1 with POM Seat		SCXB-02	ST13A	60			✓		
			SCXB-03	ST5A	120			✓		
			SCXB-06	ST16A	240			✓		
			SCXB-08	ST18A	480			✓		
106	Check Valve, Free Flow Port2 to Port1		SCXD-02	ST13A	60			✓		
			SCXD-03	ST5A	120			✓		
			SCXD-06	ST16A	240			✓		
			SCXD-08	ST18A	480			✓		

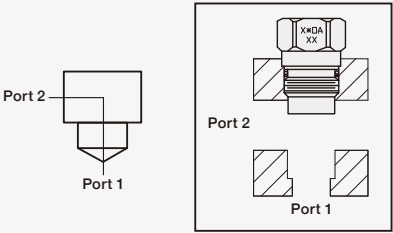
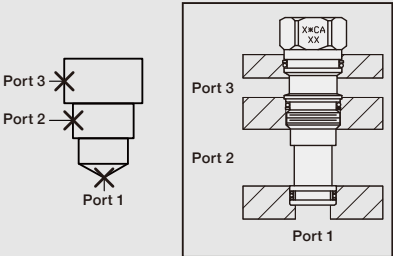
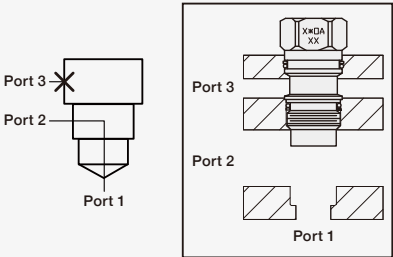
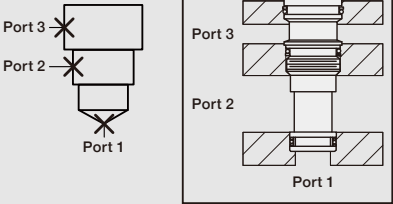
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Page No.	Function	Symbols	Model No.	Cavity	Capacity (l/min)	Control Manner		
						A	B	U
108	3:1 Pilot Ratio, Vented Counterbalance Valve - Atmospherically Referenced		SCAA-02	ST11A	60	✓		
			SCAA-03	ST2A	120	✓		
			SCAA-06	ST17A	240	✓		
			SCAA-08	ST19A	480	✓		
110	5:1 Pilot Ratio, Vented Counterbalance Valve - Atmospherically Referenced		SCAG-02	ST11A	60	✓		
			SCAG-03	ST2A	120	✓		
			SCAG-06	ST17A	240	✓		
			SCAG-08	ST19A	480	✓		
112	Counterbalance 3:1 Pilot Ratio External Pilot Non-Vented Valve		SCBA-02	ST11A	60	✓		
			SCBA-03	ST2A	120	✓		
			SCBA-06	ST17A	240	✓		
			SCBA-08	ST19A	480	✓		

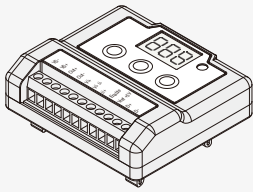
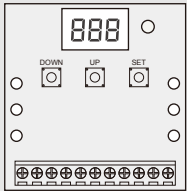
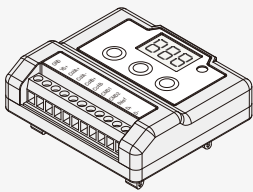
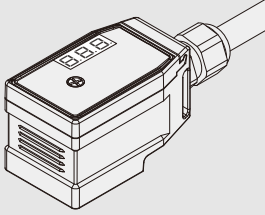
Page No.	Function	Symbols	Model No.	Cavity	Capacity (l/min)	Control Manner		
						A	B	U
114	Counterbalance 4.5:1 Pilot Ratio External Pilot Non-Vented Valve		SCBG-02	ST11A	60	✓		
			SCBG-03	ST2A	120	✓		
			SCBG-06	ST17A	240	✓		
			SCBG-08	ST19A	480	✓		
116	Counterbalance 10:1 Pilot Ratio External Pilot Non-Vented Valve		SCBH-02	ST11A	60	✓		
			SCBH-03	ST2A	120	✓		
			SCBH-06	ST17A	240	✓		
			SCBH-08	ST19A	480	✓		
118	3:1 Pilot Ratio, Semi-restrictive Counterbalance Valve		SCBC-02	ST11A	40	✓		
			SCBC-03	ST2A	80	✓		
			SCBC-06	ST17A	160	✓		
120	4.5:1 Pilot Ratio, Semi-restrictive Counterbalance Valve		SCBD-02	ST11A	40	✓		
			SCBD-03	ST2A	80	✓		
			SCBD-06	ST17A	160	✓		
122	3:1 Pilot Ratio, Restrictive Counterbalance Valve		SCBE-02	ST11A	15	✓		
			SCBE-03	ST2A	30	✓		
			SCBE-06	ST17A	60	✓		
			SCBE-08	ST19A	80	✓		
124	4.5:1 Pilot Ratio, Restrictive Counterbalance Valve		SCBF-02	ST11A	15	✓		
			SCBF-03	ST2A	30	✓		
			SCBF-06	ST17A	60	✓		
			SCBF-08	ST19A	80	✓		
126	3:1 Pilot Ratio, Vented, Counterbalance Valve		SCWA-02	ST21A	60	✓		
			SCWA-03	ST22A	120	✓		
			SCWA-06	ST23A	240	✓		
			SCWA-08	ST24A	480	✓		
128	5:1 Pilot Ratio, Vented, Counterbalance Valve		SCWG-02	ST21A	60	✓		
			SCWG-03	ST22A	120	✓		
			SCWG-06	ST23A	240	✓		
			SCWG-08	ST24A	480	✓		

Page No.	Function	Symbols	Model No.	Cavity	Capacity (l/min)	Control Manner		
						A	B	U
130	Logic Elements (Spring biased closed, pilot source from port 1)		SLOA-02	ST11A	80	✓		✓
			SLOA-03	ST2A	160	✓		✓
			SLOA-06	ST17A	320	✓		✓
			SLOA-08	ST19A	640	✓		✓
130	Logic Elements (Spring biased closed, pilot source from port 2)		SLOB-02	ST11A	80	✓		✓
			SLOB-03	ST2A	160	✓		✓
			SLOB-06	ST17A	320	✓		✓
			SLOB-08	ST19A	640	✓		✓
130	Logic Elements (Spring biased closed, pilot source from port 3)		SLOC-02	ST11A	80	✓		✓
			SLOC-03	ST2A	160	✓		✓
			SLOC-06	ST17A	320	✓		✓
			SLOC-08	ST19A	640	✓		✓
130	Logic Elements (Spring biased closed, higher of port 1 or 2 pilot source)		SLOD-02	ST11A	80	✓		✓
			SLOD-03	ST2A	160	✓		✓
			SLOD-06	ST17A	320	✓		✓
			SLOD-08	ST19A	640	✓		✓
130	Logic Elements (Spring biased open, pilot source from port 3)		SLOO-02	ST11A	80	✓		✓
			SLOO-03	ST2A	160	✓		✓
			SLOO-06	ST17A	320	✓		✓
			SLOO-08	ST19A	640	✓		✓
132	Normally Open, Logic Modulating, Internal Pilot		SLPA-02	ST11A	60	✓		✓
			SLPA-03	ST2A	120	✓		✓
			SLPA-06	ST17A	240	✓		✓
			SLPA-08	ST19A	480	✓		✓
132	Normally Open, Logic Modulating, External Pilot		SLPC-02	ST11A	60	✓		✓
			SLPC-03	ST2A	120	✓		✓
			SLPC-06	ST17A	240	✓		✓
			SLPC-08	ST19A	480	✓		✓

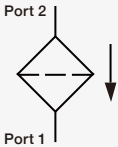
Page No.	Function	Symbols	Model No.	Cavity	Capacity (l/min)	Control Manner		
						A	B	U
134	Fixed Orifice, Flow Fuse Valve		SFQA-02	ST13A	23			✓
			SFQA-03	ST5A	60			✓
			SFQA-06	ST16A	95			✓
			SFQA-08	ST18A	200			✓
136	1.8:1 Pilot Ratio, Pilot to Close Check Valve		SCOA-01	ST163A	40			✓
			SCOA-02	ST11A	80			✓
			SCOA-03	ST2A	160			✓
			SCOA-06	ST17A	320			✓
			SCOA-08	ST19A	640			✓
138	120:1 Pilot Ratio, Pilot to Close Check Valve		SCOO-03	ST2A	4			✓
140	30%, Accumulator Sense, Pump Unload Valve with Check - Pilot Capacity		SQCA-02	ST21A	60	✓	✓	
			SQCB-02	ST21A	60	✓	✓	
			SQCC-02	ST21A	60	✓	✓	

Page No.	Function	Symbols	Model No.	Cavity	Thread
142	2 Holes External Port Blocked Cavity Plug		X10A2	ST162A	M16 P15
			X20A2	ST10A	M20 P1.5
			X20A2	ST13A	M20 P1.5
			X30A2	ST3A	1"-14UNS-2B
			X30A2	ST5A	1"-14UNS-2B
			X60A2	ST16A	M36 P2
			X80A2	ST18A	M48 P2
143	2 Holes All Ports Blocked Cavity Plug		X1CA2	ST162A	M16 P15
			X2CA2	ST10A	M20 P1.5
			X2CA2	ST13A	M20 P1.5
			X3CA2	ST3A	1"-14UNS-2B
			X3CA2	ST5A	1"-14UNS-2B
			X6CA2	ST16A	M36 P2
			X8CA2	ST18A	M48 P2
144	Port 1 to 2 Open, Port 3 Blocked Cavity Plug		X10A3	ST163A	M16 P1.5
			X20A3	ST11A	M20 P1.5
			X30A3	ST2A	1"-14UNS-2B
			X60A3	ST17A	M36 P2
			X80A3	ST19A	M48 P2
145	3 Holes All Ports Blocked Cavity Plug		X1CA3	ST163A	M16 P1.5
			X2CA3	ST13A	M20 P1.5
			X3CA3	ST2A	1"-14UNS-2B
			X6CA3	ST17A	M36 P2
			X8CA3	ST19A	M48 P2

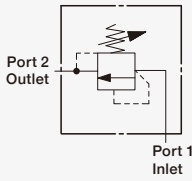
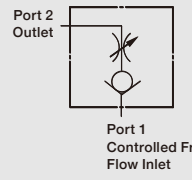
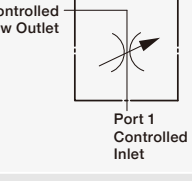
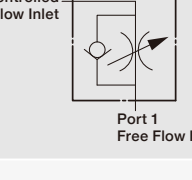
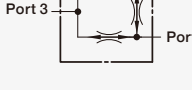
Electronic Amplifier P-C Board

Page No.	Function	Appearance	Model No.	Type
146	Digital Proportional Controller - Case		SY-DPCA-C-1	Case with DIN-35 rail clamps
148	Digital Proportional Controller - PCB Only		SY-DPCA-P-1	PCB only
150	Dual Output Proportional Controller		SY-DPCA-C-2	Case with DIN-35 rail clamps
152	Digital Proportional Controller - DIN Plug		SY-DPCA-D-P9-1	DIN43650A plug

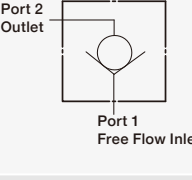
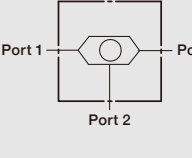
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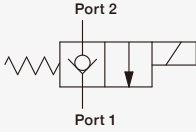
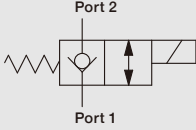
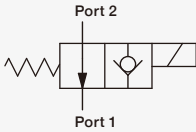
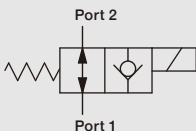
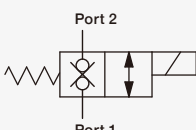
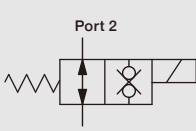
Page No.	Function	Symbols	Model No.	Cavity	Capacity (l/min)	Control Manner		
						L	K	X
154	Filter		FLA-02	ST13A	37.9			✓
			FLA-03	ST5A	75.7			✓
			FLA-06	ST16A	151.4			✓
			FLA-08	ST18A	302.8			✓

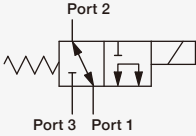
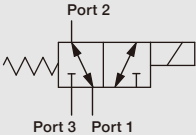
SAE Cavity Cartridge Valve > Flow Control

Page No.	Function	Symbols	Model No.	Cavity	Capacity (l/min)	Control Manner			
						A	B	U	C
158	Noiseless Direct Acting Diagonal Area Relief Valve		MH-082	ST082	25	✓	✓		✓
			MH-092	ST092	45	✓	✓		✓
			MH-102	ST102	45	✓	✓		✓
			MH-122	ST122	85	✓	✓		✓
160	Check with Manual Flow Adjustment		CN-082	ST082	30	✓	✓		
			CN-102	ST102	50	✓	✓		
			CN-122	ST122	80	✓	✓		
			CN-162	ST162	150	✓	✓		
162	Fully Adjustable Needle		NV-082	ST082	30	✓	✓		
			NV-102	ST102	50	✓	✓		
			NV-122	ST122	80	✓	✓		
			NV-162	ST162	150	✓	✓		
164	Fully Adjustable Needle with Free Flow Check		NC-082	ST082	30	✓	✓		
			NC-102	ST102	50	✓	✓		
			NC-122	ST122	80	✓	✓		
			NC-162	ST162	150	✓	✓		
166	Flow Divider (Flow Ratio: 1:1)		CP-104	ST104	45			✓	
			CP-124	ST124	75			✓	
			CP-164	ST164	150			✓	

SAE Cavity Cartridge Valve > Directional

Page No.	Function	Symbols	Model No.	Cavity	Capacity (l/min)	Control Manner		
						A	B	U
168	Check Free Flow 1-2, , Poppet Type		CV-082	ST082	30			✓
			CV-102	ST102	50			✓
			CV-122	ST122	80			✓
			CV-162	ST162	150			✓
170	Shuttle Valve		LS-083	ST083	15			✓
			LS-103	ST103	30			✓

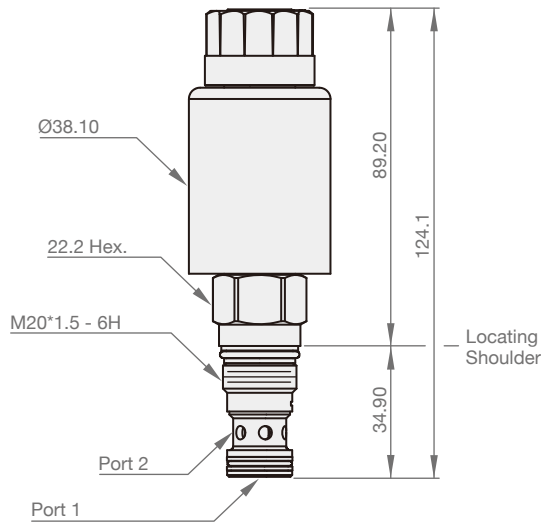
Page No.	Function	Symbols	Model No.	Cavity	Capacity (l/min)	Control Manner		
						A	B	U
172	Normally Closed Single Check		HS-2A	ST082	28			✓
			JS-2A	ST102	50			✓
			LS-2A	ST122	100			✓
			PS-2A	ST162	150			✓
174	Normally Closed Single Check Reverse Flow		HS-2B	ST082	28			✓
			JS-2B	ST102	50			✓
			LS-2B	ST122	100			✓
			PS-2B	ST162	150			✓
176	Normally Open Single Check		HS-2C	ST082	28			✓
			JS-2C	ST102	50			✓
			LS-2C	ST122	100			✓
			PS-2C	ST162	150			✓
178	Normally Open Single Check Reverse Flow		HS-2D	ST082	28			✓
			JS-2D	ST102	50			✓
			LS-2D	ST122	100			✓
			PS-2D	ST162	150			✓
180	Normally Closed Double Check		HS-2I	ST082	28			✓
			JS-2I	ST102	50			✓
			LS-2I	ST122	100			✓
			PS-2I	ST162	150			✓
182	Normally Open Double Check		HS-2J	ST082	28			✓
			JS-2J	ST102	50			✓
			LS-2J	ST122	100			✓
			PS-2J	ST162	150			✓

Page No.	Function	Symbols	Model No.	Cavity	Capacity (l/min)	Control Manner		
						A	B	U
184	3 Way, 2 Position		HS-3A	ST082	15			✓
			JS-3A	ST102				✓
186	3 Way, 2 Position		HS-3X	ST082	13			✓
			JS-3X	ST102	38			✓

SDTA

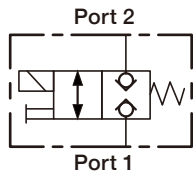
DIMENSION

(UNIT : mm)

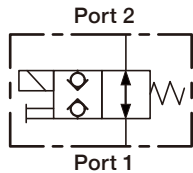


SYMBOLS

normally closed



normally open



ORDER CODES

SDTA - 02 - ST13A - C N M - DG 24

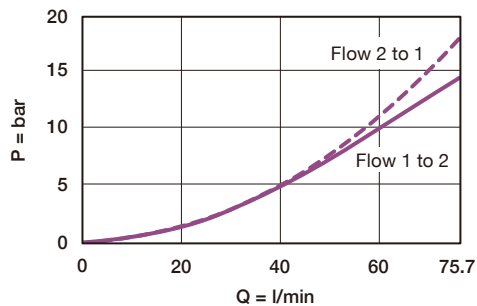
1	Model Name	SDTA	
2	Capacity (l/min)	02	40
3	Cavity	ST13A	
4	Type	C	normally closed
		H	normally open
5	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
6	Control Manner	M	manual override
7	Connector (coil)	DG	ISO/DIN43650
		DR	Deutsch DT04-2P
8	Voltage (coil)	12	12 VDC
		24	24 VDC

MODEL SPEC.

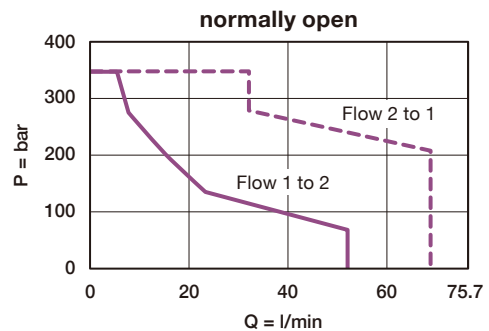
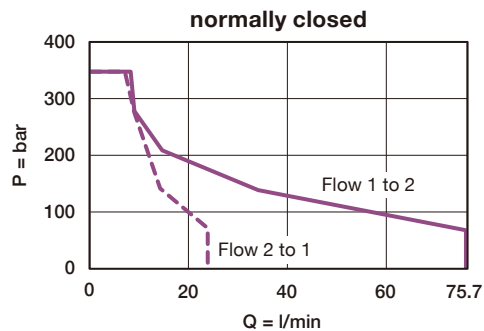
Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Leakage	Installation Torque (Nm)
SDTA-02	ST13A	40	350	less than 0.7 cc/min	45/50
Model	Max. Current	Power Consumption (watts)	Body's Weight (kg)	Coil's Weight (kg)	
SDTA-02	1820mA@12VDC 910mA@24VDC	22	0.24	0.23	

PERFORMANCE CURVES

► Pressure Differential vs. Flow



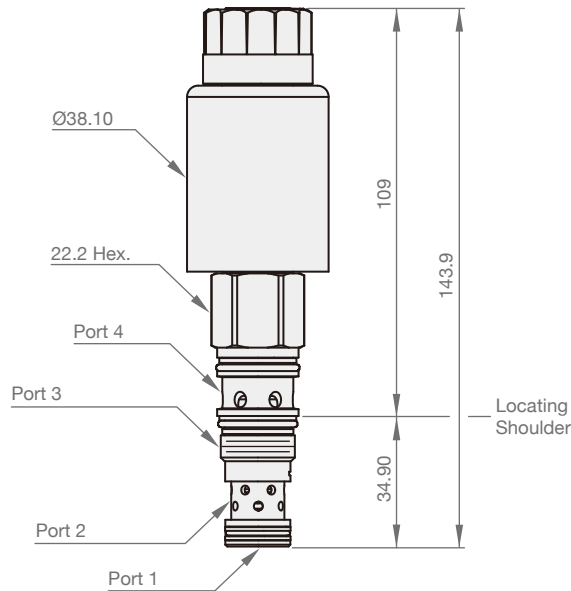
► Valve Performance Limits @ 10% Undervoltage & Stabilized Coil Temperature



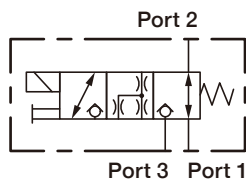
SDWA

DIMENSION

(UNIT : mm)



SYMBOLS



ORDER CODES

SDWA - **02** - **ST11A** - **A** **N** **M** - **DR** **24**

1 2 3 4 5 6 7 8

1	Model Name	SDWA	
2	Capacity (l/min)	02	30
3	Cavity	ST11A	
4	Type	A	1-2 normally open, 2-3 closed
5	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
6	Control Manner	M	manual override
7	Connector (coil)	DG	ISO/DIN43650
		DR	Deutsch DT04-2P
8	Voltage (coil)	12	12 VDC
		24	24 VDC

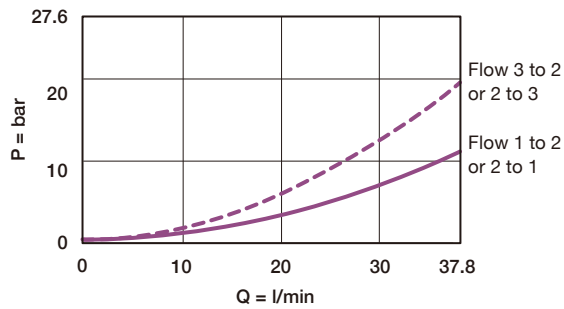
MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Leakage	Installation Torque (Nm)
SDWA-02	ST11A	30	350	less than 0.7 cc/min	45/50

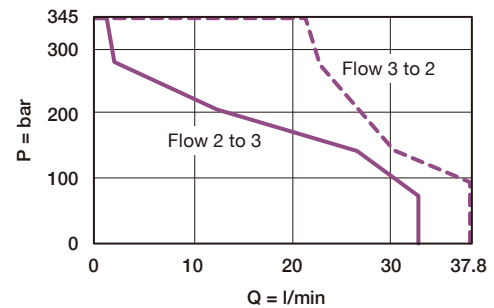
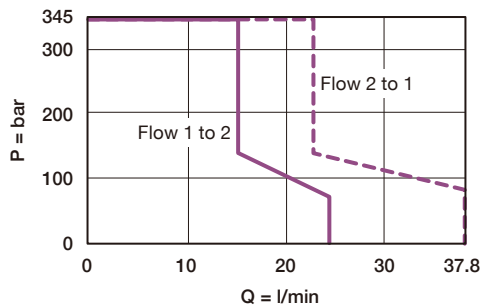
Model	Max. Current	Power Consumption (watts)	Body's Weight (kg)	Coil's Weight (kg)
SDWA-02	1820mA@12VDC 910mA@24VDC	22	0.28	0.23

PERFORMANCE CURVES

► Pressure Differential vs. Flow



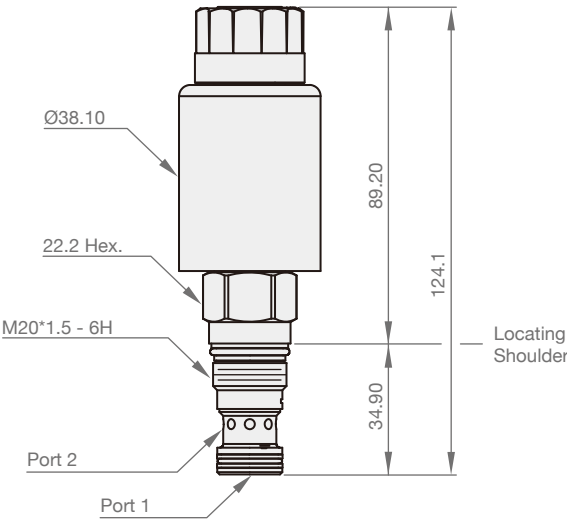
► Valve Performance Limits @ 10% Undervoltage & Stabilized Coil Temperature



SDLA

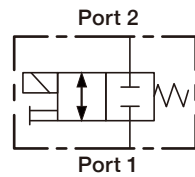
DIMENSION

(UNIT : mm)

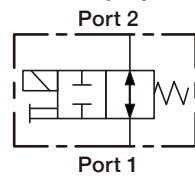


SYMBOLS

normally closed



normally open



ORDER CODES

SDLA	-	02	-	ST13A	-	C	N	M	-	DG	24
1		2		3		4	5	6		7	8

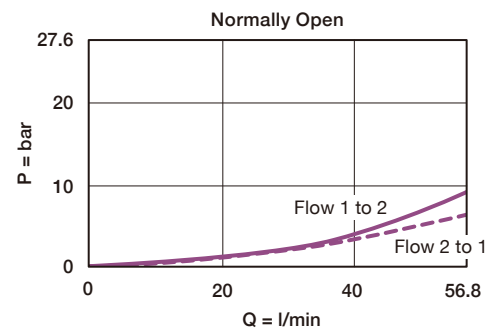
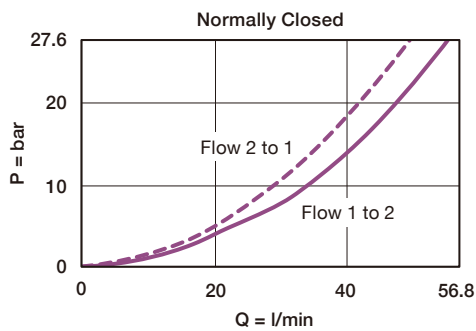
1	Model Name	SDLA	
2	Capacity (l/min)	02	45
3	Cavity	ST13A	
4	Type	C	normally closed
		H	normally open
5	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
6	Control Manner	M	manual override
7	Connector (coil)	DG	ISO/DIN43650
		DR	Deutsch DT04-2P
8	Voltage (coil)	12	12 VDC
		24	24 VDC

MODEL SPEC.

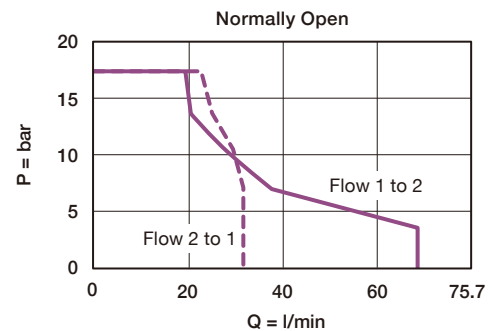
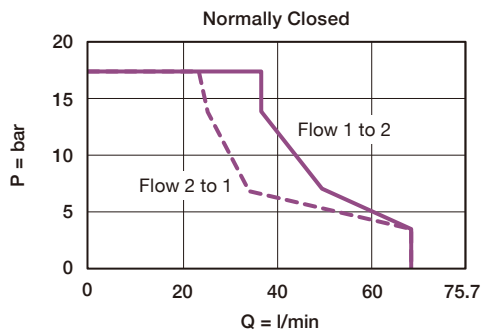
Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Leakage	Installation Torque (Nm)
SDLA-02	ST13A	45	350	less than 100 cc/min	40/50
Model	Max. Current	Power Consumption (watts)	Body's Weight (kg)	Coil's Weight (kg)	
SDLA-02	1820mA@12VDC 910mA@24VDC	22	0.24	0.23	

PERFORMANCE CURVES

► Typical Pressure Differential vs. Flow



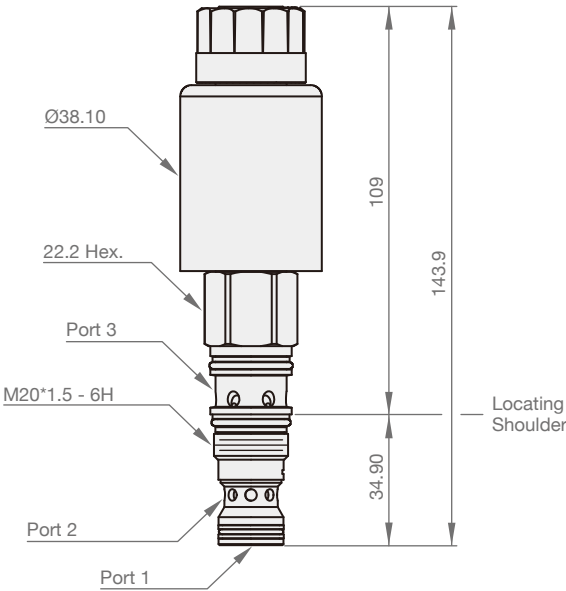
► Valve Performance Limits @ 10% Undervoltage & Stabilized Coil Temperature



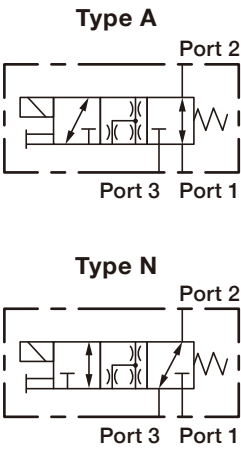
SDMA

DIMENSION

(UNIT : mm)



SYMBOLS



ORDER CODES

SDMA - 02 - ST11A - A N M - DR 24

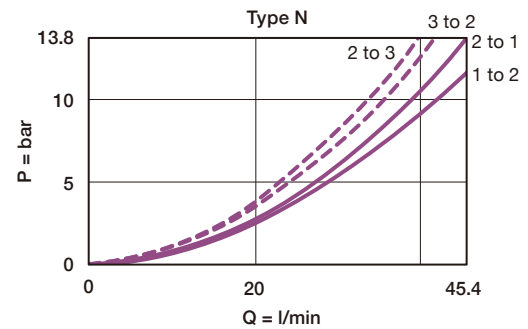
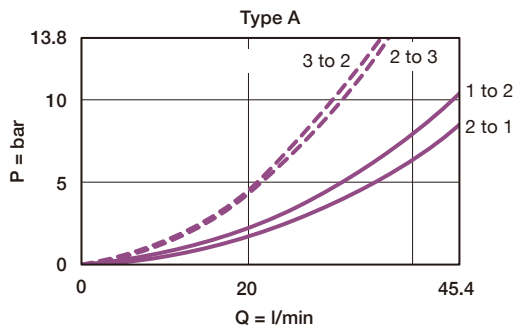
1	Model Name	SDMA	
2	Capacity (l/min)	02	45
3	Cavity	ST11A	
4	Type	A	1-2 normally open, 2-3 closed
		N	2-3 normally open, 1-2 closed
5	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
6	Control Manner	M	manual override
7	Connector (coil)	DG	ISO/DIN43650
		DR	Deutsch DT04-2P
8	Voltage (coil)	12	12 VDC
		24	24 VDC

MODEL SPEC.

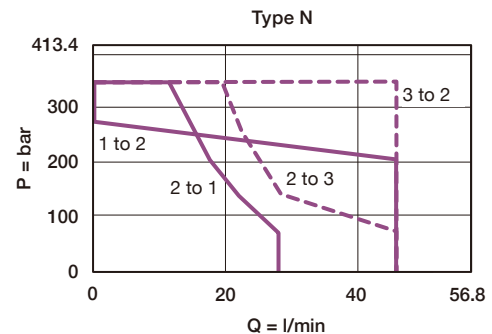
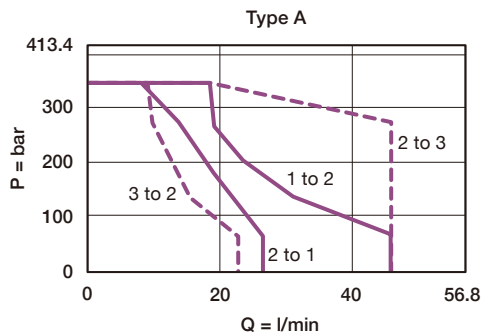
Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Leakage	Installation Torque (Nm)
SDMA-02	ST11A	45	350	less than 100 cc/min	40/50
Model	Max. Current	Power Consumption (watts)	Body's Weight (kg)	Coil's Weight (kg)	
SDMA-02	1820mA@12VDC 910mA@24VDC	22	0.28	0.23	

PERFORMANCE CURVES

► Typical Pressure Differential vs. Flow



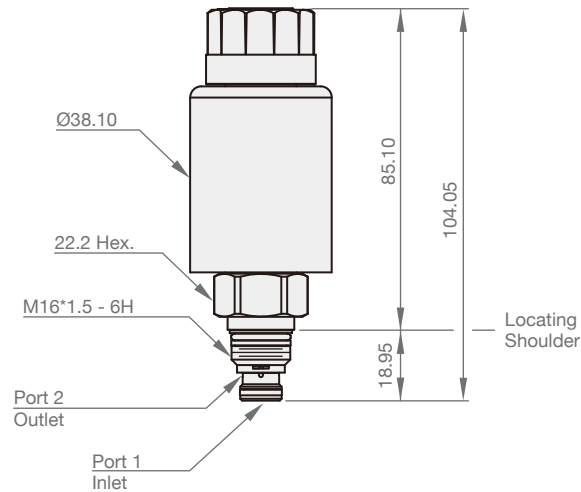
► Valve Performance Limits @ 10% Undervoltage & Stabilized Coil Temperature



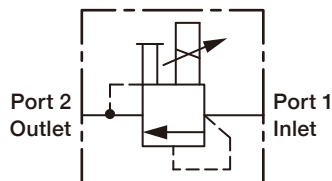
SRBP

DIMENSION

(UNIT : mm)



SYMBOLS



ORDER CODES

SRBP - **01** - **ST8A** - **A** **N** **M** - **DG** **24**

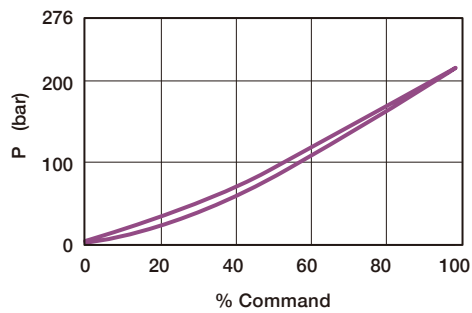
1	Model Name	SRBP	
2	Capacity (l/min)	01	1
3	Cavity	ST8A	
4	Adjustment Range (bar)	A	20 ~ 210
		B	10.5 ~ 105
		D	3.5 ~ 50
		W	35 ~ 350
5	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
6	Control Manner	M	manual override
7	Connector (coil)	DG	ISO/DIN43650
		DR	Deutsch DT04-2P
8	Voltage (coil)	12	12 VDC
		24	24 VDC

MODEL SPEC.

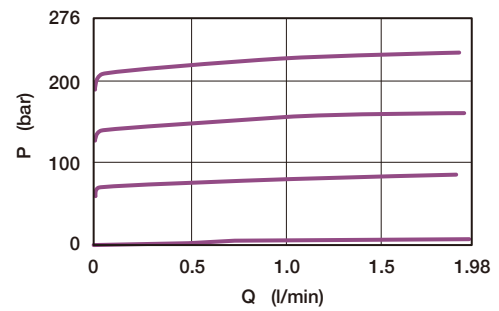
Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Leakage	Installation Torque (Nm)
SRBP-01	ST8A	1	350	less than 25 cc/min	9/10
Model	Hysteresis	Max. Current	Power Consumption (watts)	Body's Weight (kg)	Coil's Weight (kg)
SRBP-01	5%	1820mA@12VDC 910mA@24VDC	22	0.26	0.23

PERFORMANCE CURVES

► Pressure vs. Command (Range A)



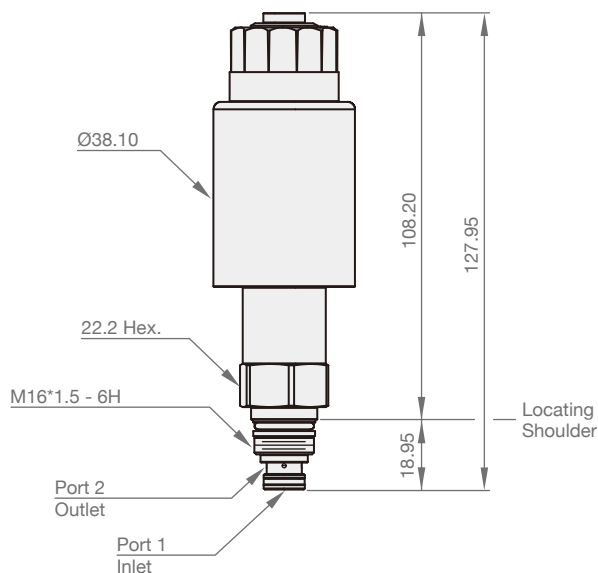
► Typical Pressure Rise



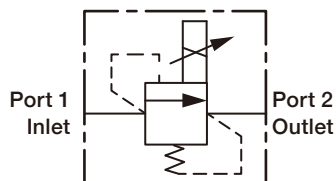
SRBN

DIMENSION

(UNIT : mm)



SYMBOLS



ORDER CODES

SRBN - **01** - **ST8A** - **A** **N** **M** - **DR** **24**

1 2 3 4 5 6 7 8

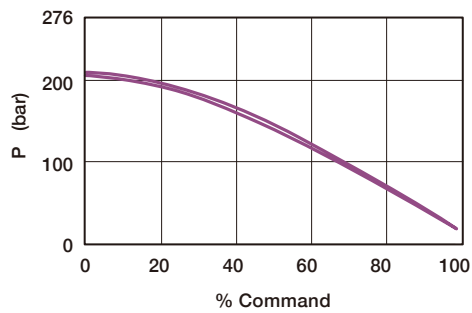
1	Model Name	SRBN	
2	Capacity (l/min)	01	1
3	Cavity	ST8A	
4	Adjustment Range (bar)	A	105 ~ 210
		B	55 ~ 105
		D	20 ~ 55
		W	210 ~ 350
5	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
6	Control Manner	M	manual override
7	Connector (coil)	DG	ISO/DIN43650
		DR	Deutsch DT04-2P
8	Voltage (coil)	12	12 VDC
		24	24 VDC

MODEL SPEC.

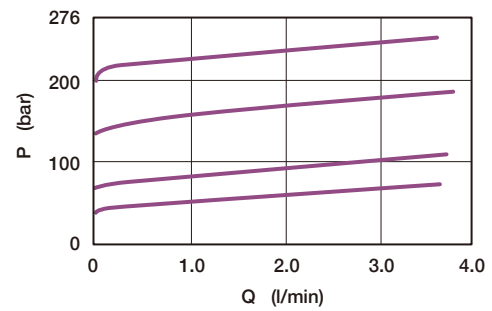
Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Leakage	Installation Torque (Nm)
SRBN-01	ST8A	1	350	less than 25 cc/min	9/10
Model	Hysteresis	Max. Current	Power Consumption (watts)	Body's Weight (kg)	Coil's Weight (kg)
SRBN-01	5%	1820mA@12VDC 910mA@24VDC	22	0.45	0.23

PERFORMANCE CURVES

► Pressure vs. Command (Range A)



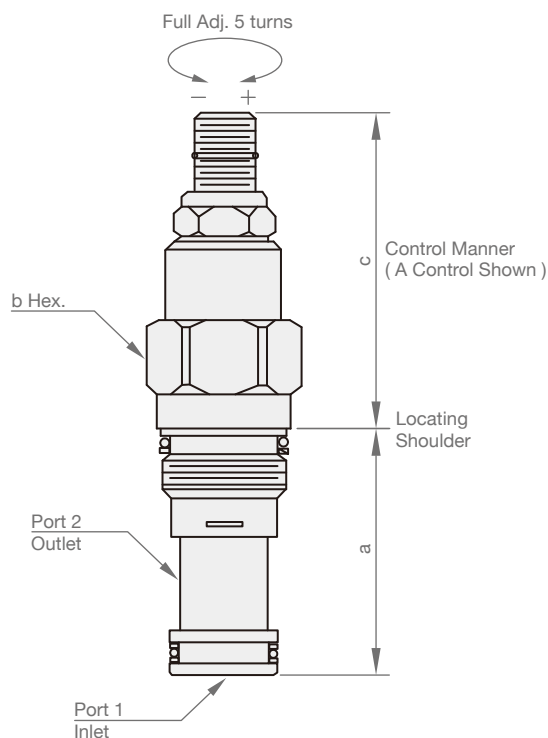
► Pressure Differential vs. Flow (Range A)



SRBC, SRBA

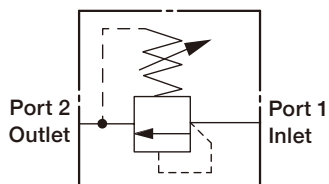
DIMENSION

(UNIT : mm)



Model	a	b	c	
			A	B
SRBC-02	39.7	22.2	51	58
SRBA-03	47.8	28.6	54	61

SYMBOLS



ORDER CODES

SRB **C-02** - **ST10A** - **A** **N** **A**

1 2 3 4 5 6

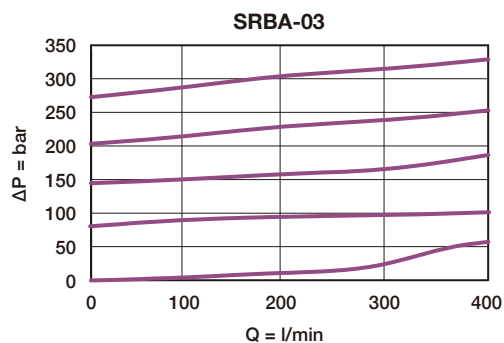
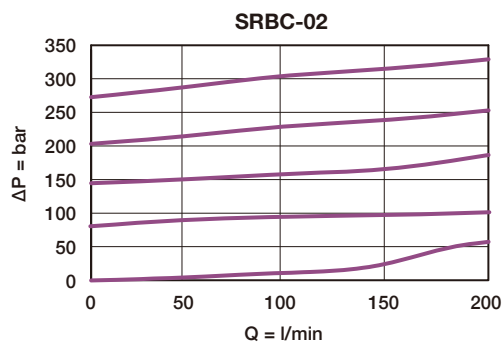
1	Model Name	SRB	
2	Capacity & Valve Size	C-02	1 l/min
		A-03	2 l/min
3	Cavity	ST10A, ST3A	
4	Adjustable Range	A	7 ~ 210 bar
		B	3.5 ~ 105 bar
		C	10.5 ~ 400 bar
		N	5 ~ 55 bar
5	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
6	Control Manner	A	adjustable screw
		B	control knob

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SRBC-02	ST10A	1	350	45/50	-35 ~ 100°C (-31 ~ 212°F)	0.15
SRBA-03	ST3A	2	350	60/70		0.25

PERFORMANCE CURVES

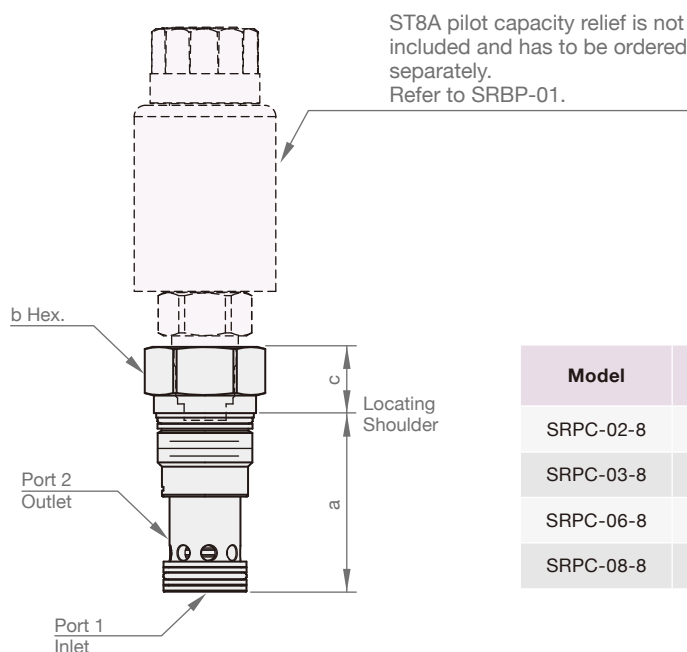
► Typical Pressure Rise



SRPC8

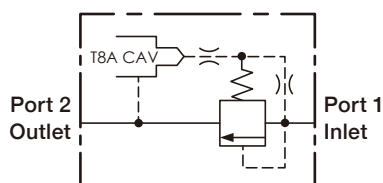
DIMENSION

(UNIT : mm)



Model	a	b	c
SRPC-02-8	39.7	22.2	19
SRPC-03-8	47.8	28.6	17.5
SRPC-06-8	61.9	31.8	24.6
SRPC-08-8	79.4	41.3	30.2

SYMBOLS



ORDER CODES

SRPC - **03** - **ST3A** - **W** **N** **8**

1 2 3 3 4 5

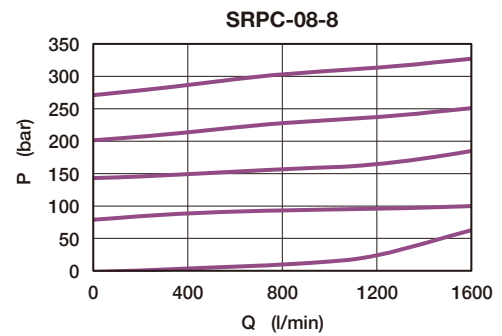
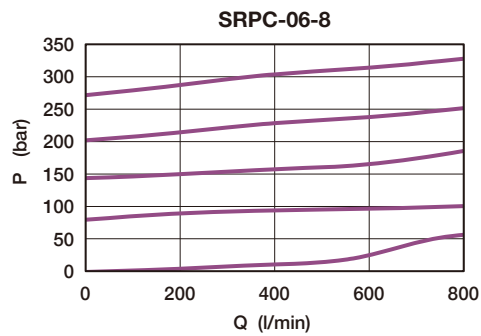
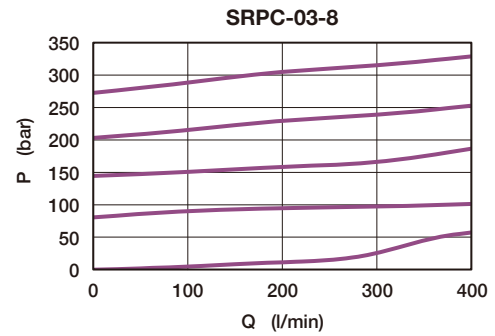
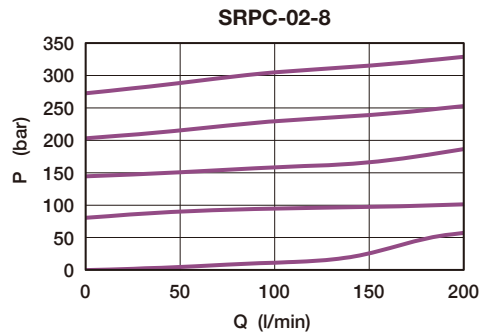
1	Model Name	SRPC	
2	Valve Size	02, 03, 06, 08	
3	Cavity	ST10A, ST3A, ST16A, ST18A	
4	Cracking Pressure (bar)	W	7
		D	1.7
5	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
6	Control Manner	8	integral cavity ST8A

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SRPC-02-8	ST10A	95	350	40/50	-35 ~ 100°C (-31 ~ 212°F)	0.09
SRPC-03-8	ST3A	200	350	60/70		0.17
SRPC-06-8	ST16A	380	350	200/215		0.43
SRPC-08-8	ST18A	760	350	465/500		0.59

PERFORMANCE CURVES

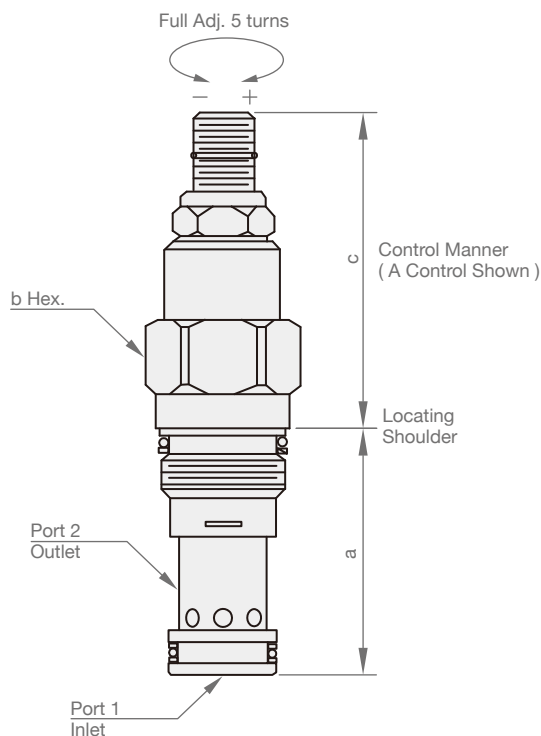
► Typical Pressure Rise



SRPC

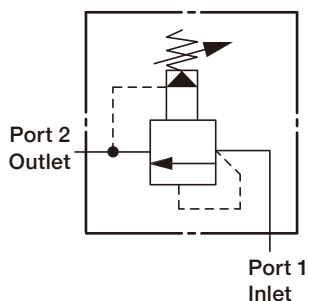
DIMENSION

(UNIT : mm)



Model	a	b	c	
			A	B
SRPC-02	39.7	22.2	51	58
SRPC-03	47.8	28.6	54	61
SRPC-06	61.9	31.8	62	69
SRPC-08	79.4	41.3	71	78

SYMBOLS



ORDER CODES

SRPC - 02 - ST10A - A N A

1 2 3 4 5 6

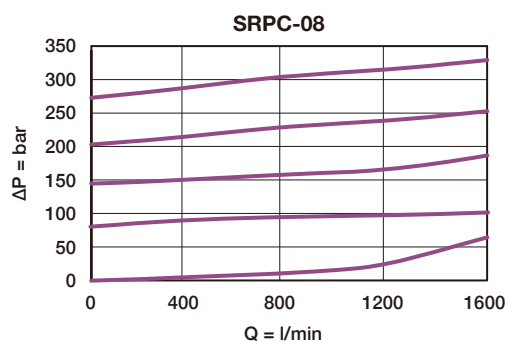
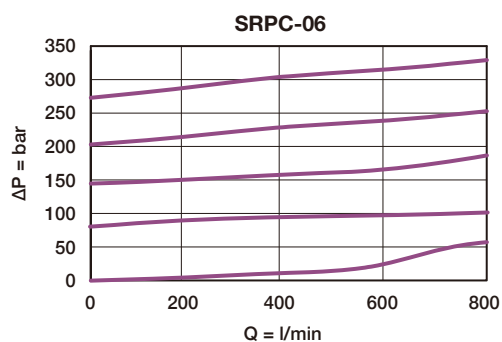
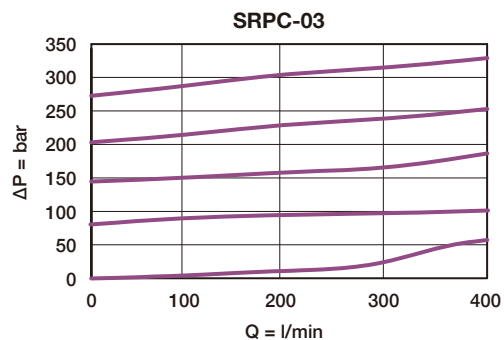
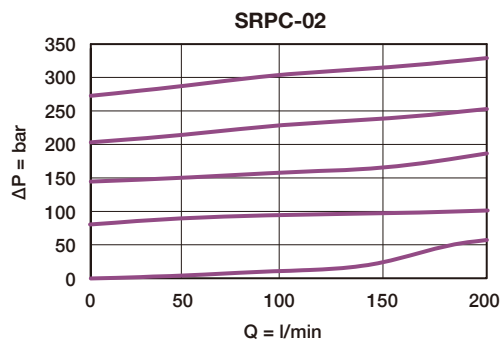
1	Model Name	SRPC	
2	Valve Size	02, 03, 06, 08	
3	Cavity	ST10A, ST3A, ST16A, ST18A	
4	Adjustable Range	A	7 ~ 210 bar
		B	3.5 ~ 105 bar
		C	10.5 ~ 400 bar
		N	5 ~ 55 bar
		W	10.5~315 bar
5	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
6	Control Manner	A	adjustable screw
		B	control knob

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SRPC-02	ST10A	95	350	40/50	-35 ~ 100°C (-31 ~ 212°F)	0.15
SRPC-03	ST3A	200	350	60/70		0.25
SRPC-06	ST16A	380	350	200/215		0.55
SRPC-08	ST18A	760	350	465/500		1.17

PERFORMANCE CURVES

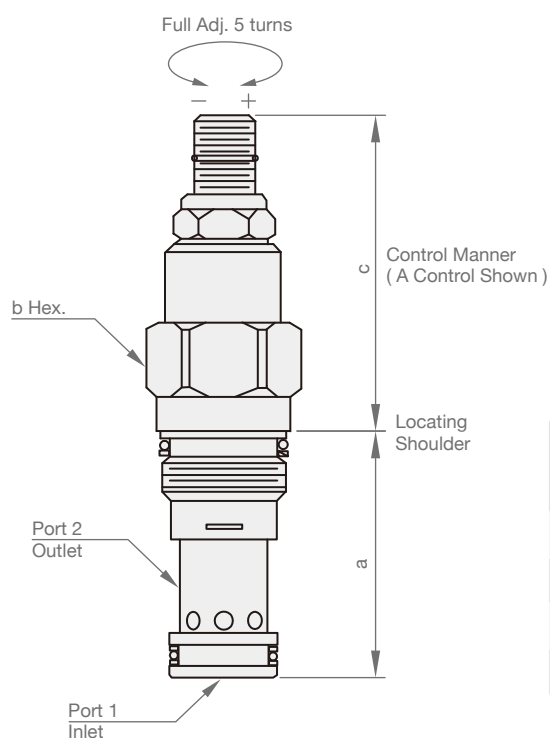
► Typical Pressure Rise



SRPE

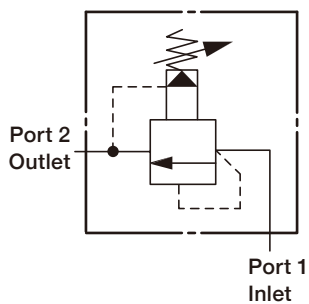
DIMENSION

(UNIT : mm)



Model	a	b	c	
			A	B
SRPE-02	39.7	22.2	51	58
SRPE-03	47.8	28.6	54	61
SRPE-06	61.9	31.8	62	69
SRPE-08	79.4	41.3	71	78

SYMBOLS



ORDER CODES

SRPE - **02** - **ST10A** - **A** **N** **A**

1 2 3 4 5 6

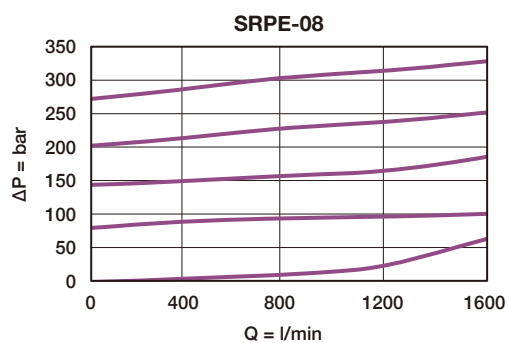
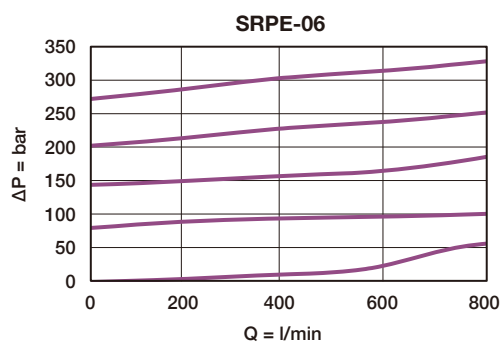
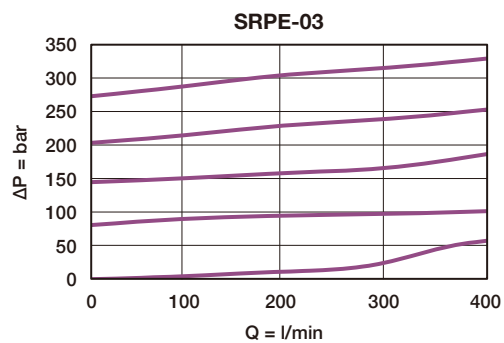
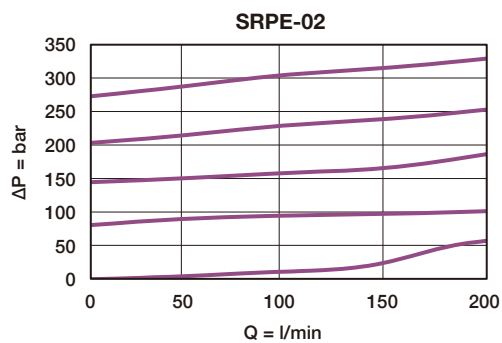
1	Model Name	SRPE	
2	Valve Size	02, 03, 06, 08	
3	Cavity	ST10A, ST3A, ST16A, ST18A	
4	Adjustable Range	A	7 ~ 210 bar
		B	3.5 ~ 105 bar
		C	10.5 ~ 400 bar
		N	5 ~ 55 bar
5	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
6	Control Manner	A	adjustable screw
		B	control knob

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SRPE-02	ST10A	95	350	40/50	-35 ~ 100°C (-31 ~ 212°F)	0.15
SRPE-03	ST3A	200	350	60/70		0.25
SRPE-06	ST16A	380	350	200/215		0.55
SRPE-08	ST18A	760	350	465/500		1.17

PERFORMANCE CURVES

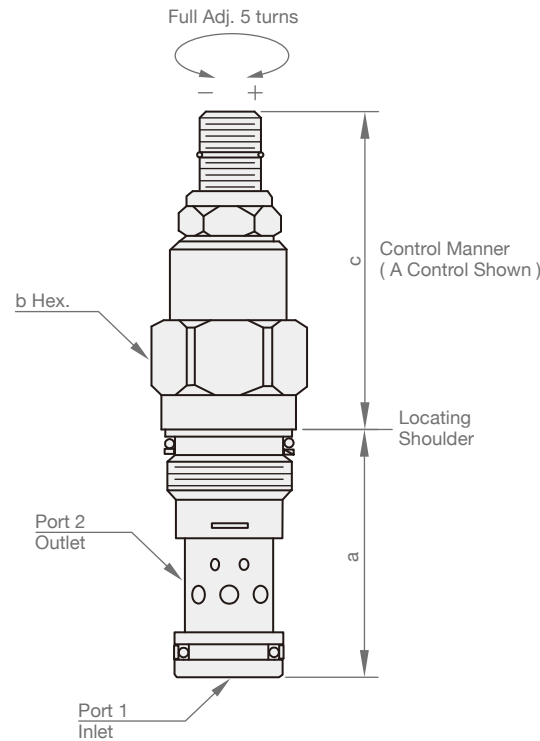
► Typical Pressure Rise



SRDA

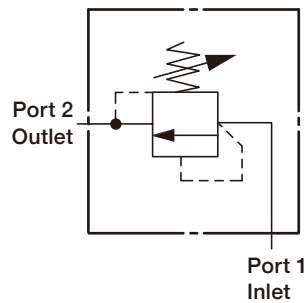
DIMENSION

(UNIT : mm)



Model	a	b	c
			A
SRDA-01	30.2	18.62	54.1
SRDA-02	39.7	22.2	61
SRDA-03	47.8	28.6	64
SRDA-06	61.9	31.8	83
SRDA-08	79.4	41.3	100

SYMBOLS



ORDER CODES

SRDA

-

02

-

ST10A

-

A

N

A

1

2

3

4

5

6

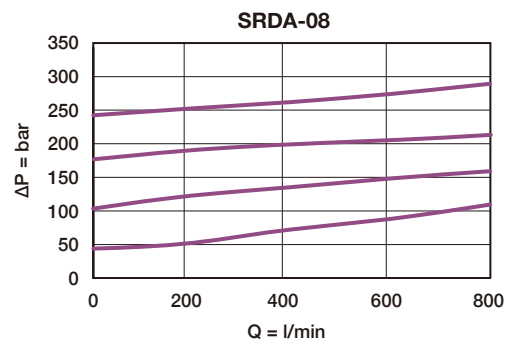
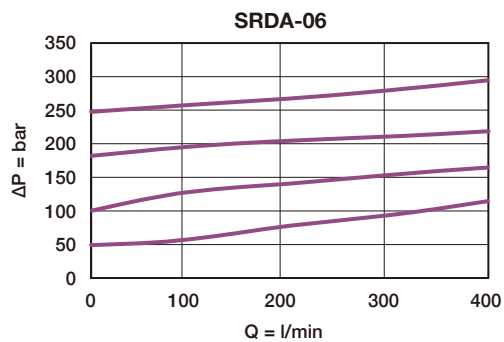
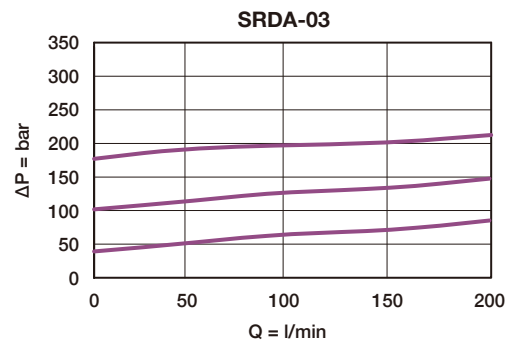
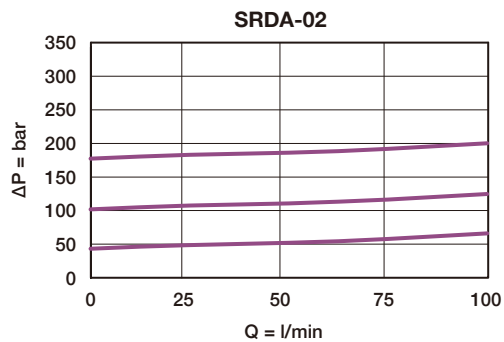
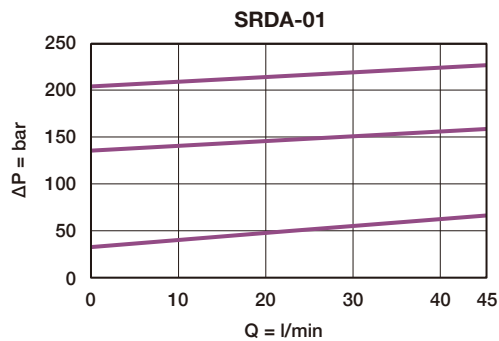
1	Model Name	SRDA	
2	Valve Size	01, 02, 03, 06, 08	
3	Cavity	ST162A, ST10A, ST3A, ST16A, ST18A	
4	Adjustable Range	A	35 ~ 210 bar
		B	20 ~ 105 bar
		C	70 ~ 420 bar
		D	14 ~ 55 bar
5	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
6	Control Manner	A	adjustable screw

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SRDA-01	ST162A	28.4	350	27/33	-35 ~ 100°C (-31 ~ 212°F)	0.1
SRDA-02	ST10A	95	350	40/50		0.155
SRDA-03	ST3A	200	350	60/70		0.295
SRDA-06	ST16A	380	350	200/215		0.670
SRDA-08	ST18A	760	350	465/500		1.450

PERFORMANCE CURVES

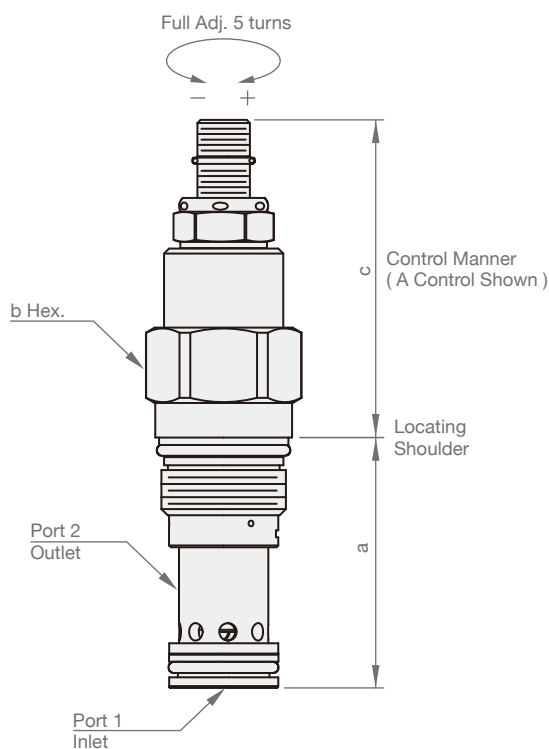
► Typical Pressure Rise



SRQ

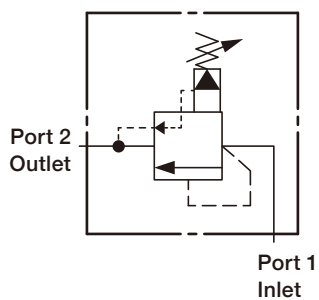
DIMENSION

(UNIT : mm)



Model	a	b	c	
			A	B
SRQB-02	39.6	22.2	50.8	57.2
SRQB-03	47.8	28.6	53.8	60.5
SRQB-06	62.0	31.8	62.0	68.3
SRQB-08	79.5	41.3	71.4	77.7

SYMBOLS



ORDER CODES

SRQB - 02 - ST10A - A N A

1 2 3 4 5 6

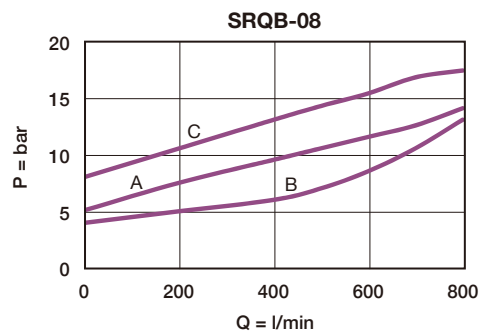
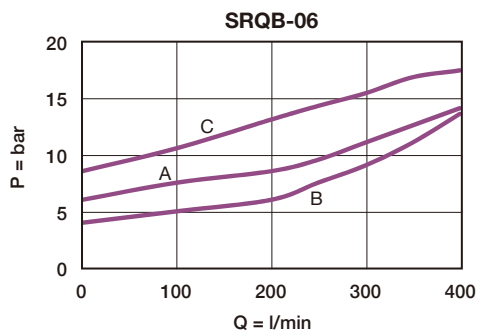
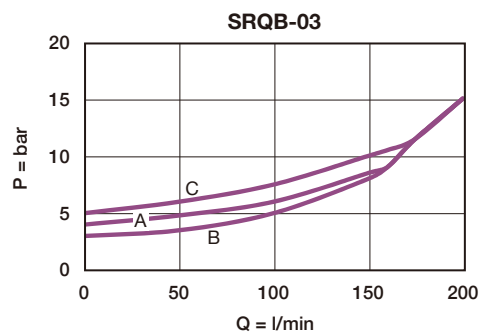
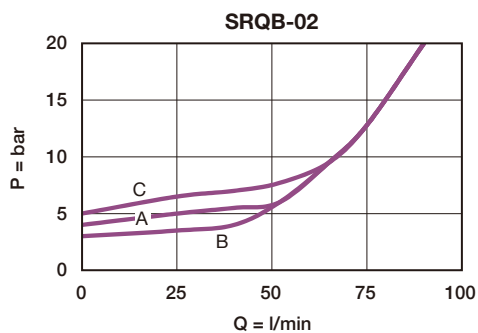
1	Model Name	SRQB	
2	Valve Size	02, 03, 06, 08	
3	Cavity	ST10A, ST3A, ST16A, ST18A	
4	Adjustable Range	A	7 ~ 210 bar
		B	3.5 ~ 105 bar
		C	10.5 ~ 420 bar
		N	5 ~ 55 bar
5	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
6	Control Manner	A	adjustable screw
		B	control knob

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SRQB-02	ST10A	95	350	45/50	-35 ~ 100°C (-31 ~ 212°F)	0.14
SRQB-03	ST3A	200	350	60/70		0.26
SRQB-06	ST16A	380	350	200/215		0.54
SRQB-08	ST18A	760	350	465/500		1.17

PERFORMANCE CURVES

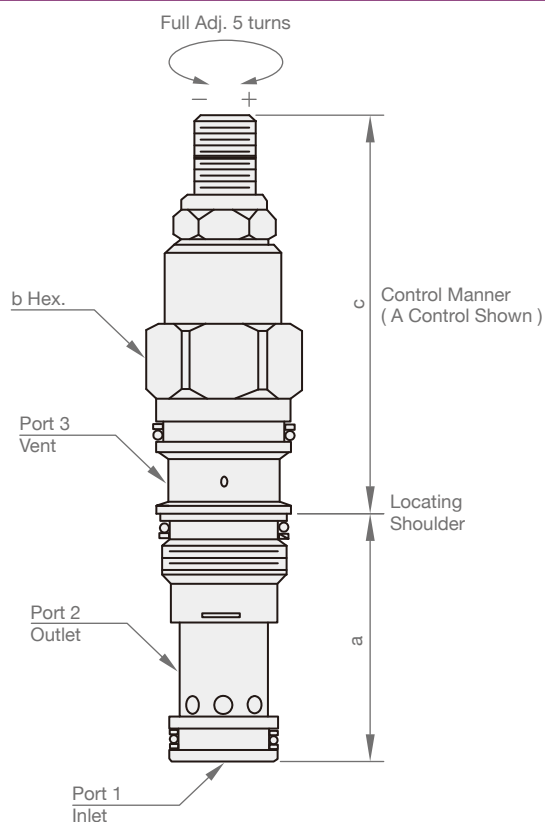
► Unloaded Pressure Drop



SRVA

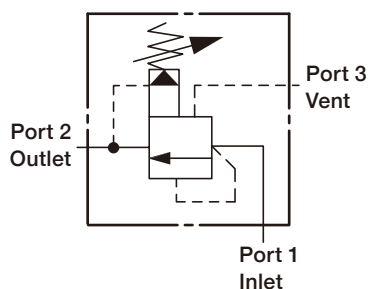
DIMENSION

(UNIT : mm)



Model	a	b	c	
			A	B
SRVA-01	29.9	19	66	72
SRVA-02	34.9	22.2	64	70
SRVA-03	34.9	28.6	72	78
SRVA-06	46.0	31.8	84	90
SRVA-08	63.5	41.3	100	107

SYMBOLS



ORDER CODES

SRVA - **02** - **ST11A** - **A** **N** **A**

1 2 3 4 5 6

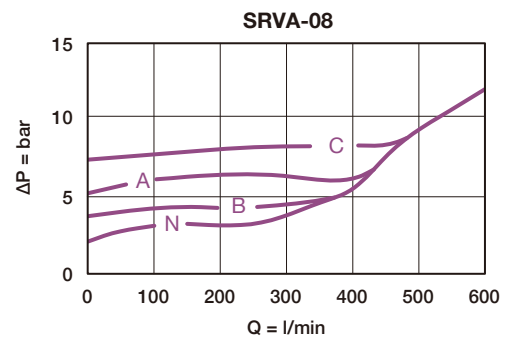
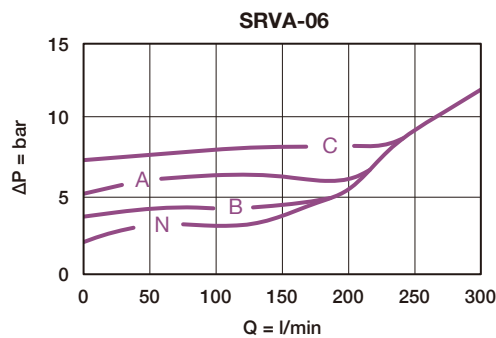
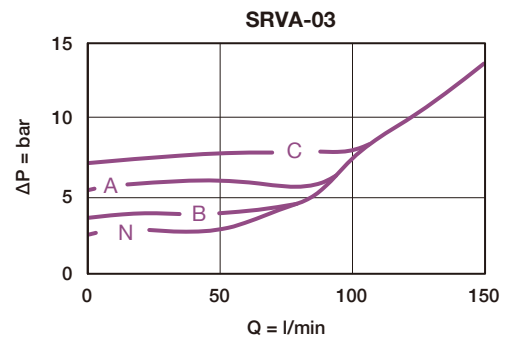
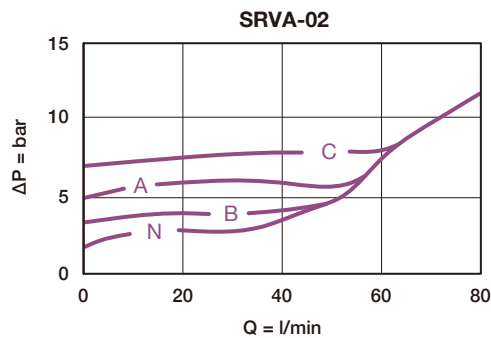
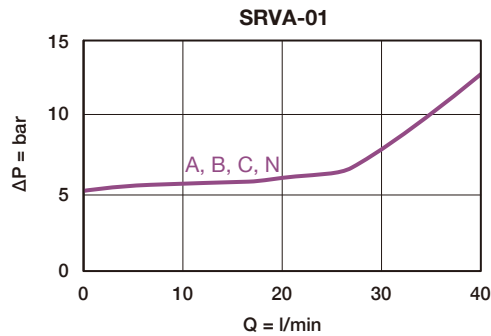
1	Model Name	SRVA
2	Valve Size	01, 02, 03, 06, 08
3	Cavity	ST163A, ST11A, ST2A, ST17A, ST19A
4	Adjustable Range	A 7 ~ 210 bar
		B 3.5 ~ 105 bar
		C 10.5 ~ 420 bar
		N 5 ~ 55 bar
5	Material of Seal	N buna-N
		V viton
		E EPDM
		H HNBR
		U polyurethane
6	Control Manner	A adjustable screw
		B control knob

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SRVA-01	ST163A	28.4	350	40/48	-35 ~ 100°C (-31 ~ 212°F)	0.12
SRVA-02	ST11A	60	350	40/50		0.17
SRVA-03	ST2A	120	350	60/70		0.30
SRVA-06	ST17A	240	350	200/215		0.64
SRVA-08	ST19A	480	350	465/500		1.43

PERFORMANCE CURVES

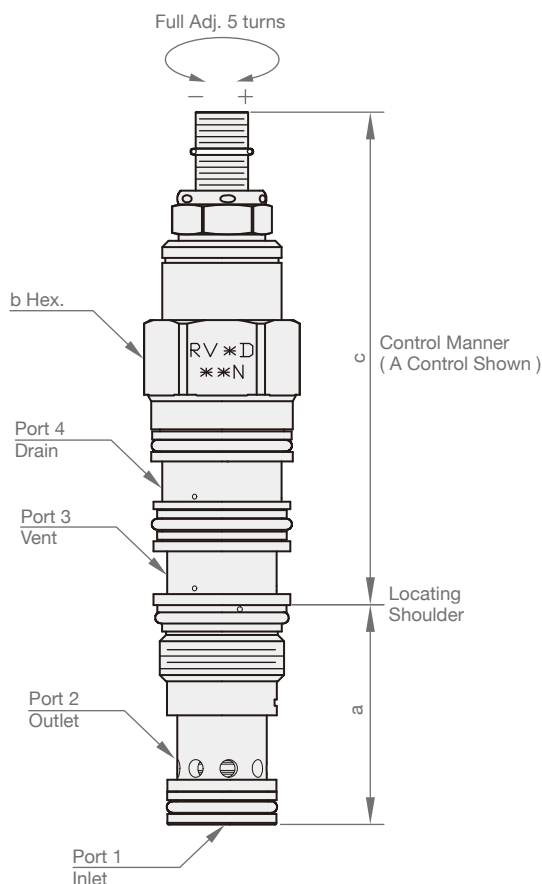
► Vented Pressure Drop



SRVD

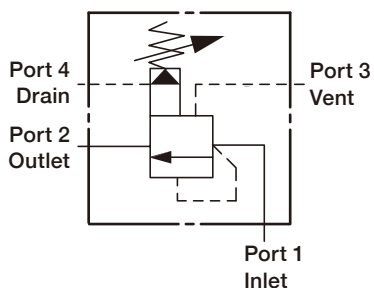
DIMENSION

(UNIT : mm)



Model	a	b	c	
			A	B
SRVD-02	35.1	22.2	78.5	84.8
SRVD-03	35.1	28.6	87.4	93.7
SRVD-06	46.0	31.8	99.8	106.4
SRVD-08	63.5	41.3	121.4	127.8

SYMBOLS



ORDER CODES

SRVD - 02 - ST21A - A N A

1 2 3 4 5 6

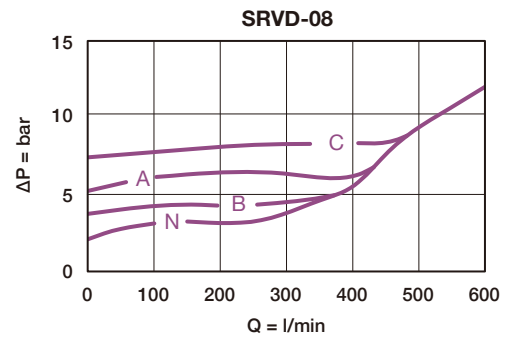
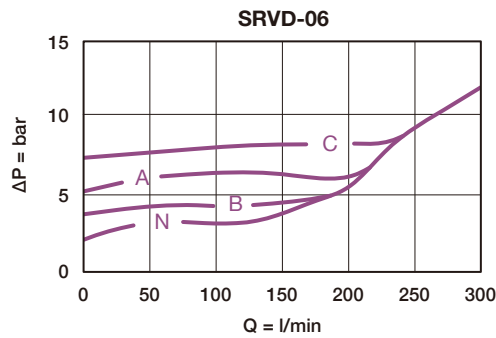
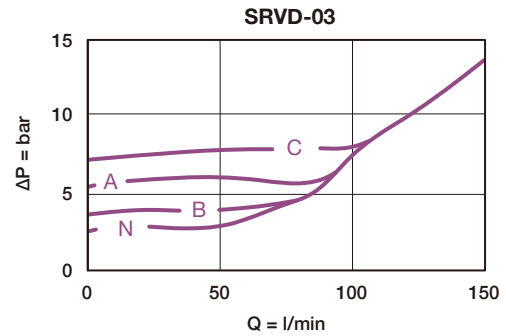
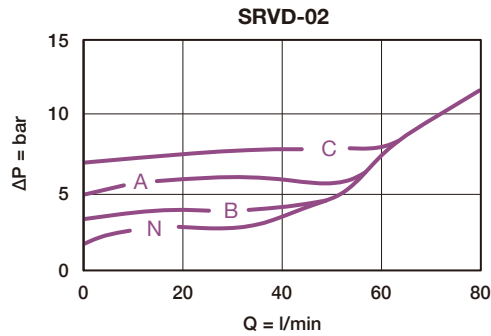
1	Model Name	SRVD
2	Valve Size	02, 03, 06, 08
3	Cavity	ST21A, ST22A, ST23A, ST24A
4	Adjustable Range	A 7 ~ 210 bar
		B 3.5 ~ 105 bar
		C 10.5 ~ 420 bar
		N 5 ~ 55 bar
5	Material of Seal	N buna-N
		V viton
		E EPDM
		H HNBR
		U polyurethane
6	Control Manner	A adjustable screw
		B control knob

PERFORMANCE CURVES

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SRVD-02	ST21A	60	350	45/50	-35 ~ 100°C (-31 ~ 212°F)	0.20
SRVD-03	ST22A	120	350	60/70		0.35
SRVD-06	ST23A	240	350	200/215		0.75
SRVD-08	ST24A	480	350	465/500		1.75

MODEL SPEC.

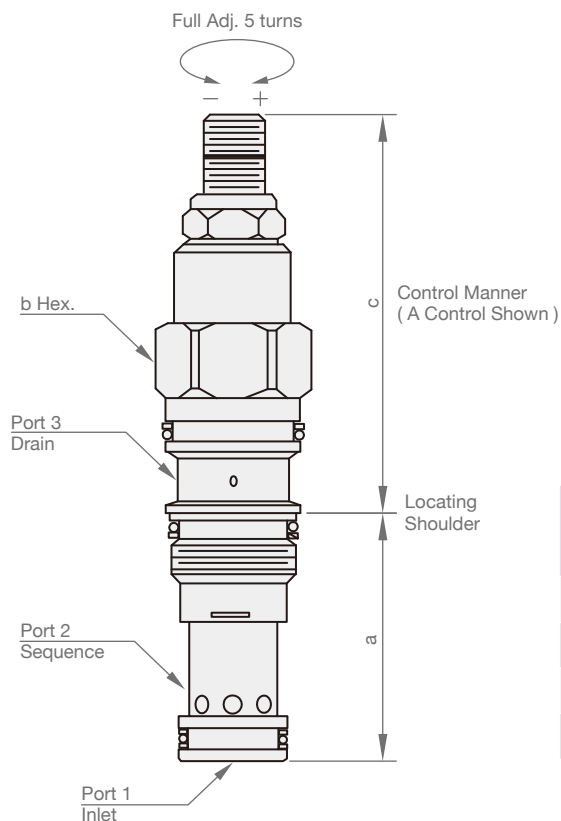
► Vented Pressure Drop



SRS

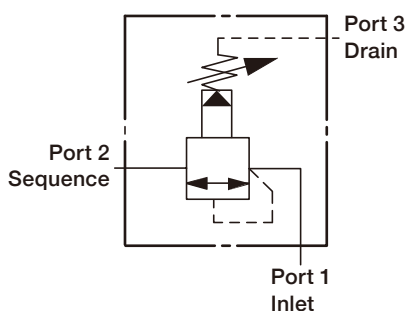
DIMENSION

(UNIT : mm)



Model	a	b	c	
			A	B
SRSC-02	34.9	22.2	64	70
SRSC-03	34.9	28.6	72	78
SRSC-06	46.0	31.8	84	90
SRSC-08	63.5	41.3	100	107

SYMBOLS



ORDER CODES

SRSC - **02** - **ST11A** - **A** **N** **A**

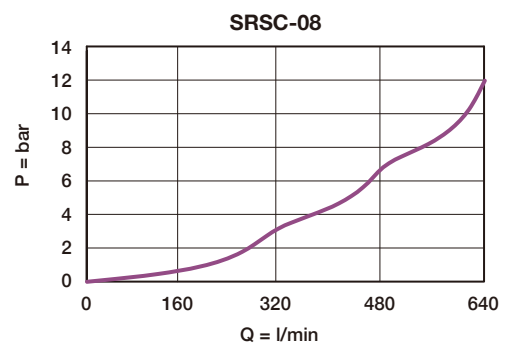
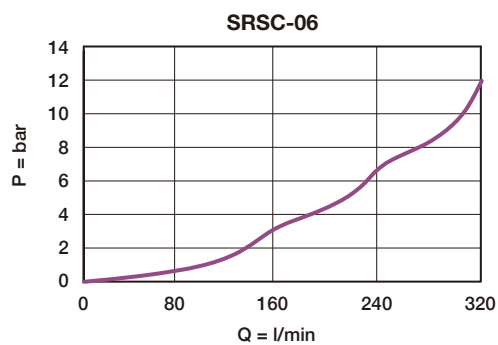
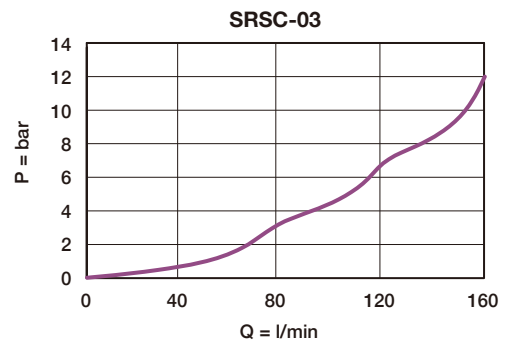
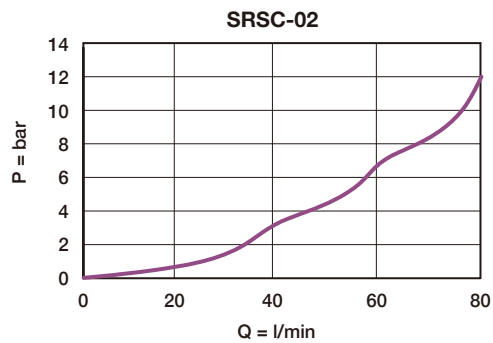
1	Model Name	SRSC	
2	Valve Size	02, 03, 06, 08	
3	Cavity	ST11A, ST2A, ST17A, ST19A	
4	Adjustable Range	A	7 ~ 210 bar
		B	3.5 ~ 105 bar
		C	10.5 ~ 420 bar
		E	1.7 ~ 28 bar
		N	5 ~ 55 bar
5	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
6	Control Manner	A	adjustable screw
		B	control knob

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SRSC-02	ST11A	60	350	40/50	-35 ~ 100°C (-31 ~ 212°F)	0.17
SRSC-03	ST2A	120	350	60/70		0.30
SRSC-06	ST17A	240	350	200/215		0.64
SRSC-08	ST19A	480	350	465/500		1.43

PERFORMANCE CURVES

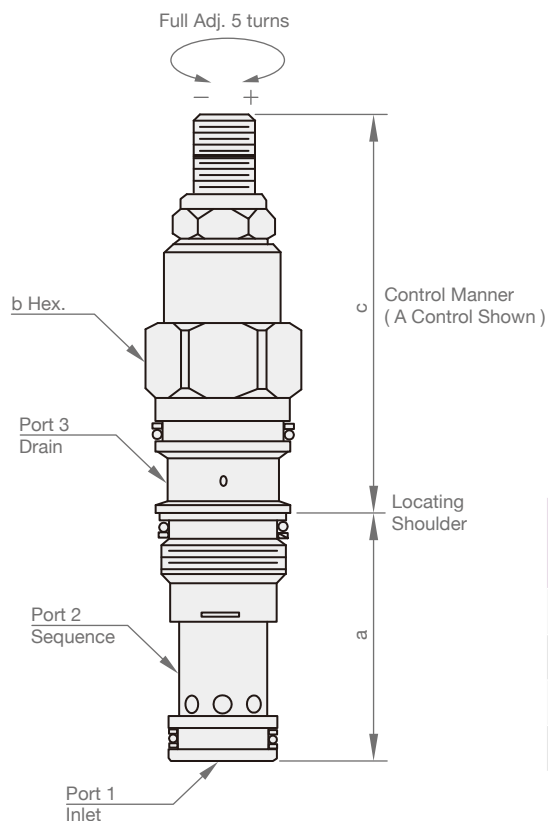
► Pressure Drop Fully Sequence



SSQ

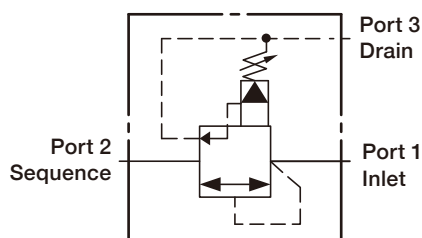
DIMENSION

(UNIT : mm)



Model	a	b	c	
			A	B
SSQB-02	34.9	22.2	64	70
SSQB-03	34.9	28.6	72	78
SSQB-06	46.0	31.8	84	90
SSQB-08	63.5	41.3	100	107

SYMBOLS



ORDER CODES

SSQB - **02** - **ST11A** - **A** **N** **A**

1 2 3 4 5 6

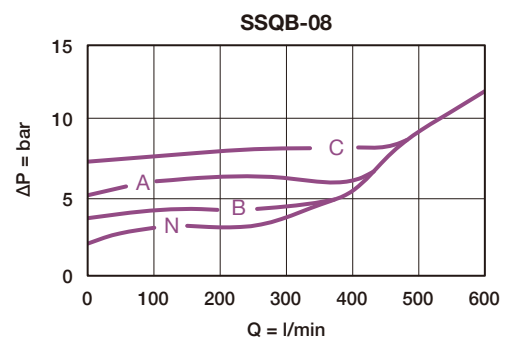
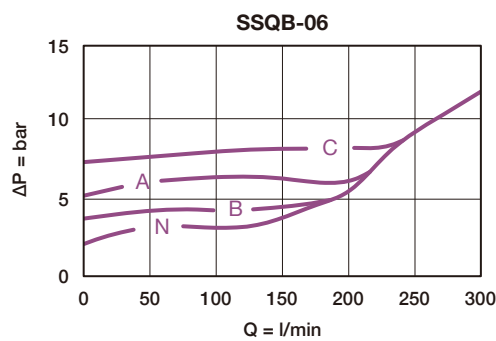
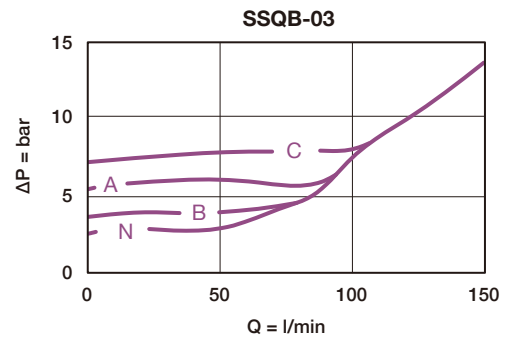
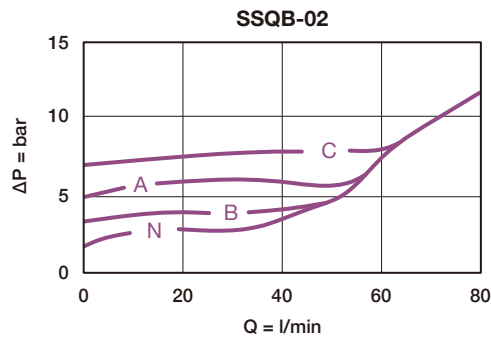
1	Model Name	SSQB
2	Valve Size	02, 03, 06, 08
3	Cavity	ST11A, ST2A, ST17A, ST19A
4	Adjustable Range	A 7 ~ 210 bar
		B 3.5 ~ 105 bar
		C 10 ~ 400 bar
		N 5 ~ 55 bar
5	Material of Seal	N buna-N
		V viton
		E EPDM
		H HNBR
		U polyurethane
6	Control Manner	A adjustable screw
		B control knob

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SSQB-02	ST11A	60	350	40/50	-35 ~ 100°C (-31 ~ 212°F)	0.17
SSQB-03	ST2A	120	350	60/70		0.30
SSQB-06	ST17A	240	350	200/215		0.64
SSQB-08	ST19A	480	350	465/500		1.43

PERFORMANCE CURVES

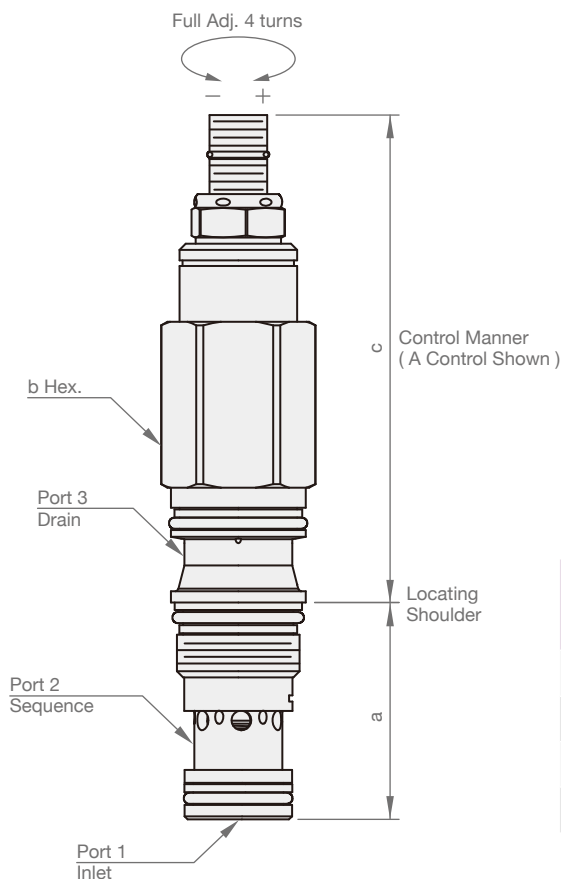
► Pressure Drop After Opening



SSC

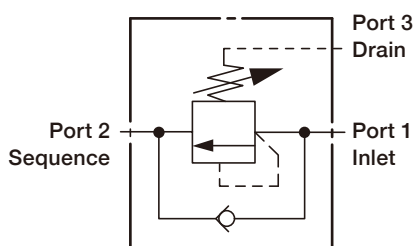
DIMENSION

(UNIT : mm)



Model	a	b	c	
			A	B
SSCA-02	35.1	22.2	78.5	84.8
SSCA-03	35.1	28.6	88.1	94.0
SSCA-06	46.0	31.8	100.0	-
SSCA-08	63.5	41.3	122.9	-

SYMBOLS



ORDER CODES

SSCA - 02 - ST11A - A N A

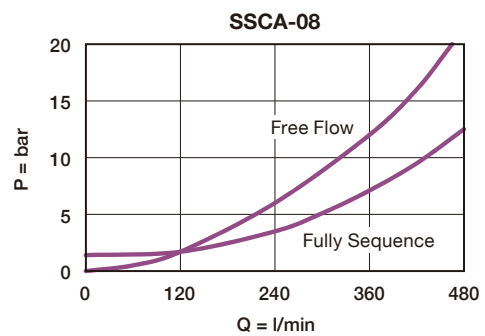
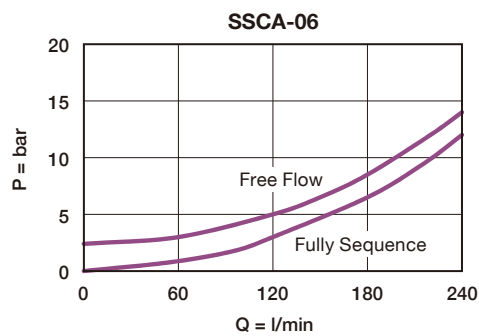
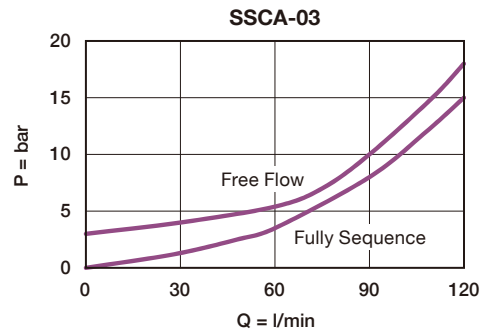
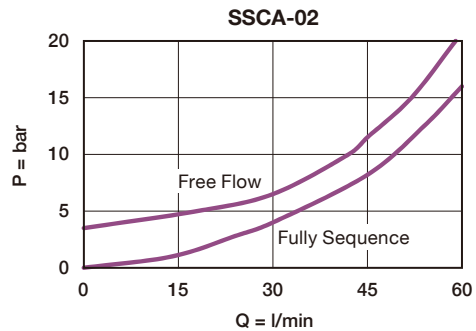
1	Model Name	SSCA
2	Valve Size	02, 03, 06, 08
3	Cavity	ST11A, ST2A, ST17A, ST19A
4	Adjustable Range	A 35 ~ 210 bar
		B 20 ~ 105 bar
		C 140 ~ 420 bar
		D 14 ~ 55 bar
5	Material of Seal	N buna-N
		V viton
		E EPDM
		H HNBR
		U polyurethane
6	Control Manner	A adjustable screw
		B control knob

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SSCA-02	ST11A	60	350	45/50	-35 ~ 100°C (-31 ~ 212°F)	0.20
SSCA-03	ST2A	120	350	60/70		0.38
SSCA-06	ST17A	240	350	200/215		0.74
SSCA-08	ST19A	480	350	465/500		1.62

PERFORMANCE CURVES

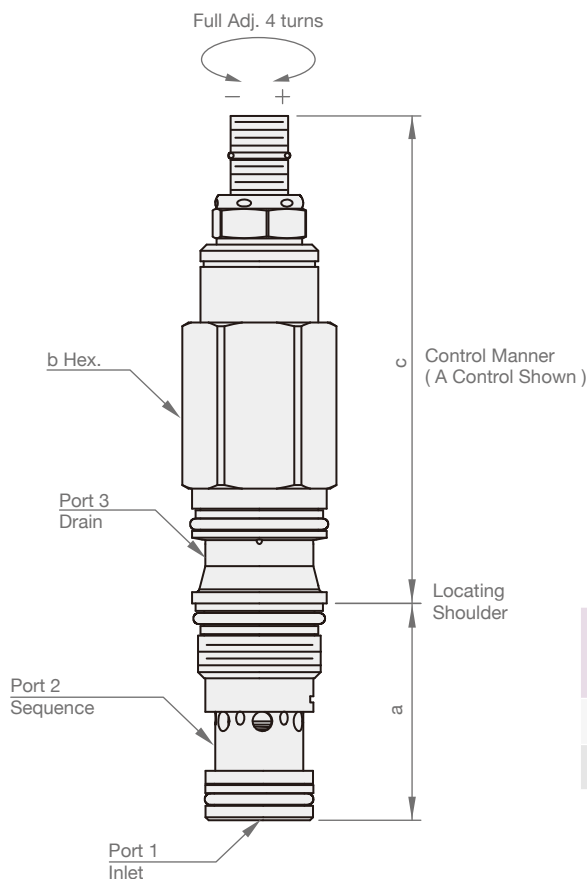
► Free Flow & Pressure Drop Fully Sequenced



SSX

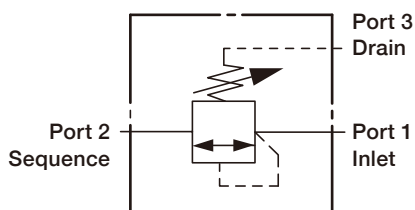
DIMENSION

(UNIT : mm)



Model	a	b	c	
			A	B
SSXA-02	35.1	22.2	78.5	84.8
SSXA-03	35.1	28.6	88.1	94.0

SYMBOLS



ORDER CODES

SSXA - 03 - ST11A - A N A

1 2 3 4 5 6

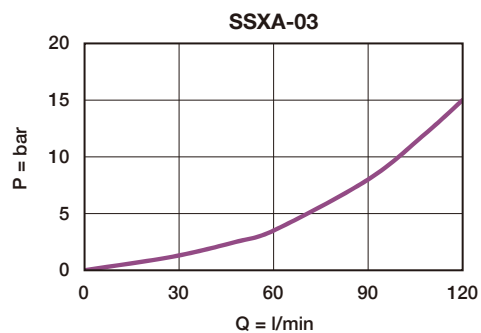
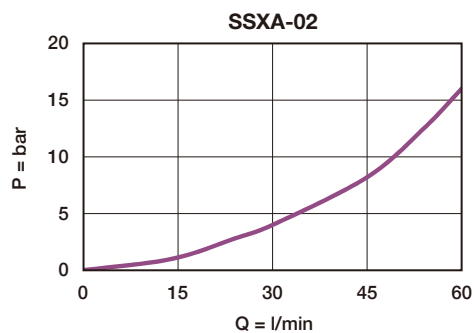
1	Model Name	SSXA
2	Valve Size	02, 03
3	Cavity	ST11A, ST2A
5	Adjustable Range	A 35 ~ 210 bar
		B 20 ~ 105 bar
		C 140 ~ 420 bar
		D 14 ~ 55 bar
6	Material of Seal	N buna-N
		V viton
		E EPDM
		H HNBR
		U polyurethane
6	Control Manner	A adjustable screw
		B control knob

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SSXA-02	ST11A	60	350	45/50	-35 ~ 100°C (-31 ~ 212°F)	0.20
SSXA-03	ST2A	120	350	60/70		0.36

PERFORMANCE CURVES

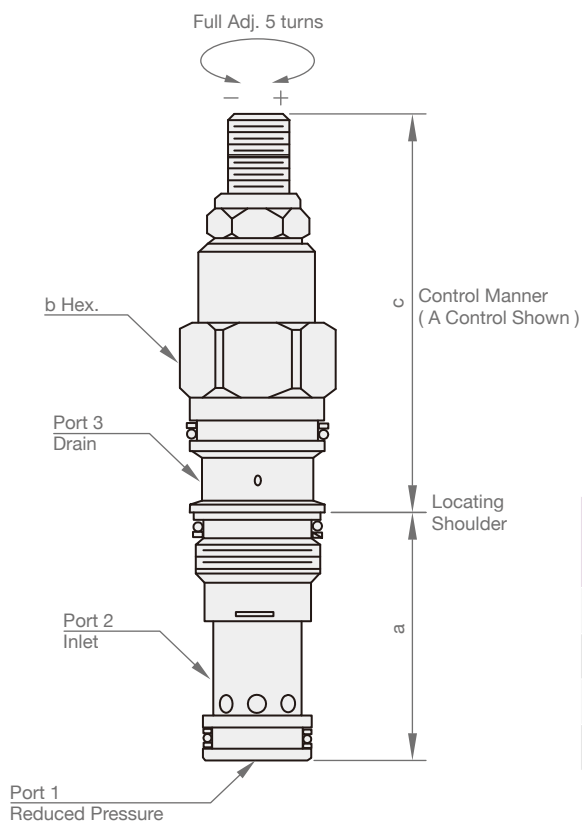
► Pressure Drop Fully Sequenced



SPB

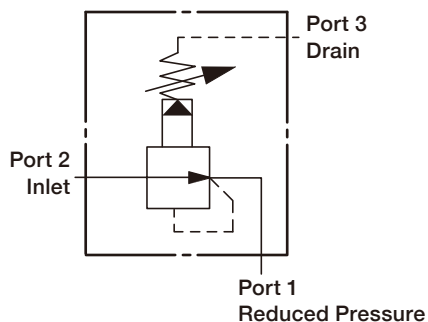
DIMENSION

(UNIT : mm)



Model	a	b	c	
			A	B
SPBB-02	34.9	22.2	64	70
SPBB-03	34.9	28.6	72	78
SPBB-06	46.0	31.8	84	90
SPBB-08	63.5	41.3	100	107

SYMBOLS



ORDER CODES

SPBB - **02** - **ST11A** - **A** **N** **A**

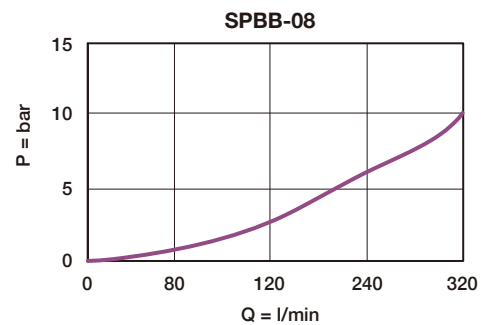
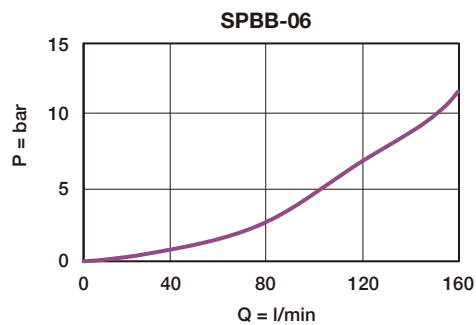
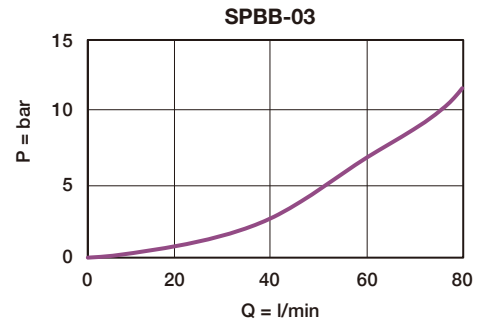
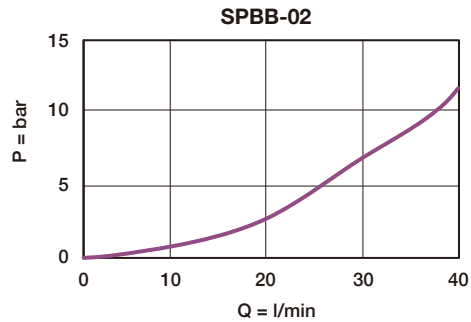
1	Model Name	SPBB
2	Valve Size	02, 03, 06, 08
3	Cavity	ST11A, ST2A, ST17A, ST19A
4	Adjustable Range	A 7 ~ 210 bar
		B 3.5 ~ 105 bar
		C 10.5 ~ 420 bar
		N 4 ~ 55 bar
5	Material of Seal	N buna-N
		V viton
		E EPDM
		H HNBR
		U polyurethane
6	Control Manner	A adjustable screw
		B control knob

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SPBB-02	ST11A	40	350	40/50	-35 ~ 100°C (-31 ~ 212°F)	0.17
SPBB-03	ST2A	80	350	60/70		0.30
SPBB-06	ST17A	160	350	200/215		0.64
SPBB-08	ST19A	320	350	465/500		1.43

PERFORMANCE CURVES

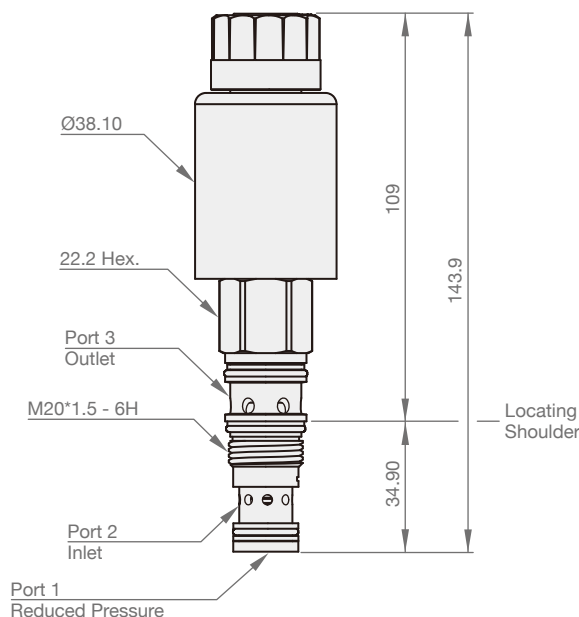
► No Load Pressure Drop



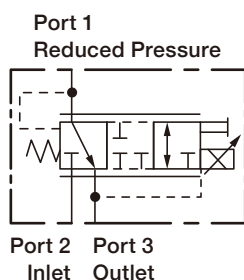
SPRP

DIMENSION

(UNIT : mm)



SYMBOLS



ORDER CODES

SPRP - 02 - ST11A - D N M - DR 24

1 2 3 4 5 6 7 8

1	Model Name	SPRP	
2	Capacity (l/min)	02	20
3	Cavity	ST11A	
4	Adjustment Range (bar)	D	3.5 ~ 33.5
5	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
6	Control Manner	M	manual override
7	Connector (coil)	DG	ISO/DIN43650
		DR	Deutsch DT04-2P
8	Voltage (coil)	12	12 VDC
		24	24 VDC

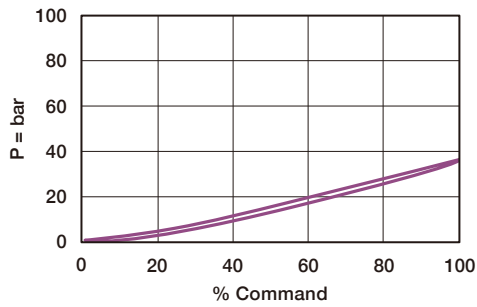
MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Leakage	Installation Torque (Nm)
SPRP-02	ST11A	20	350	less than 45 cc/min	40/50

Model	Max. Current	Power Consumption (watts)	Body's Weight (kg)	Coil's Weight (kg)
SPRP-02	1820mA@12VDC 910mA@24VDC	22	0.33	0.23

PERFORMANCE CURVES

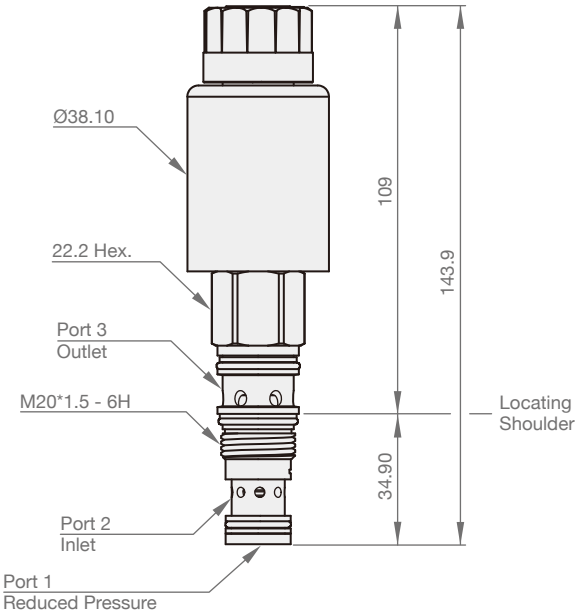
► Pressure vs. Command



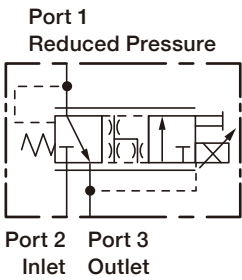
SPRL

DIMENSION

(UNIT : mm)



SYMBOLS



ORDER CODES

SPRL - 02 - ST11A - D N M - DG 24

1	Model Name	SPRL	
2	Capacity (l/min)	02	20
3	Cavity	ST11A	
4	Adjustment Range (bar)	D	3.5 ~ 33.5
5	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
6	Control Manner	M	manual override
7	Connector (coil)	DG	ISO/DIN43650
		DR	Deutsch DT04-2P
8	Voltage (coil)	12	12 VDC
		24	24 VDC

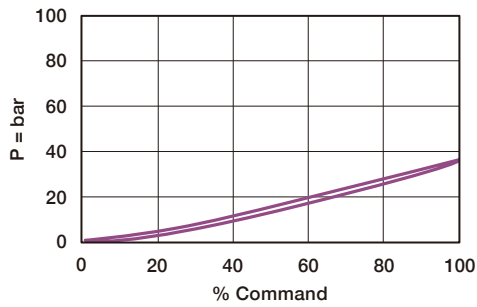
MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Leakage	Installation Torque (Nm)
SPRL-02	ST11A	20	350	less than 330 cc/min	40/50

Model	Max. Current	Power Consumption (watts)	Body's Weight (kg)	Coil's Weight (kg)
SPRL-02	1820mA@12VDC 910mA@24VDC	22	0.33	0.23

PERFORMANCE CURVES

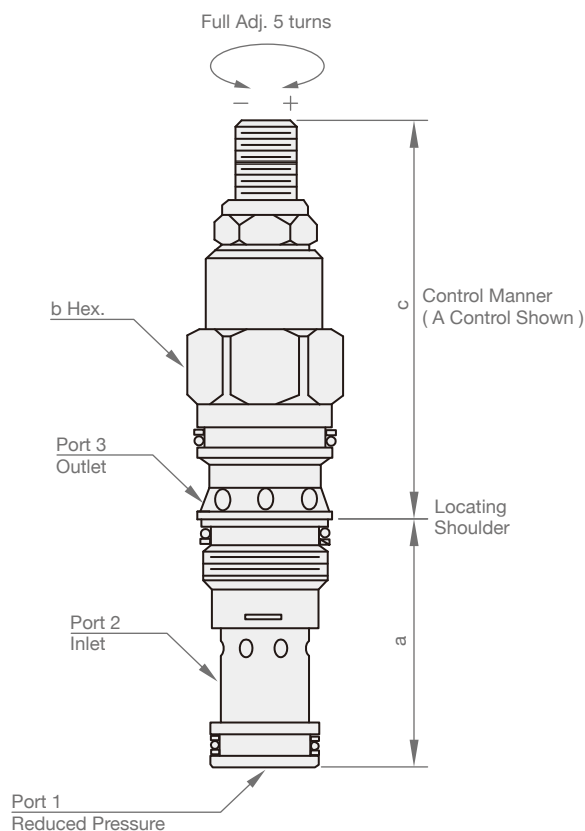
► Pressure vs. Command



SPP

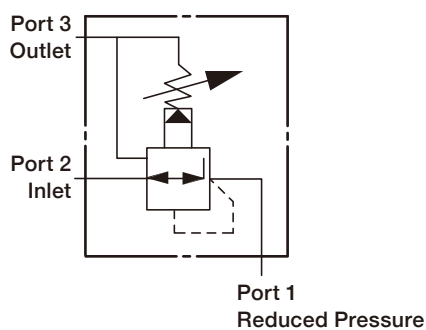
DIMENSION

(UNIT : mm)



Model	a	b	c	
			A	B
SPPB-02	34.9	22.2	64	70
SPPB-03	34.9	28.6	72	78
SPPB-06	46.0	31.8	84	90
SPPB-08	63.5	41.3	100	107

SYMBOLS



ORDER CODES

SPPB - **02** - **ST11A** - **A** **N** **A**

1 2 3 4 5 6

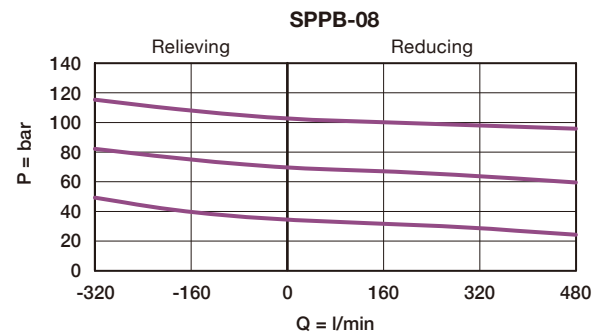
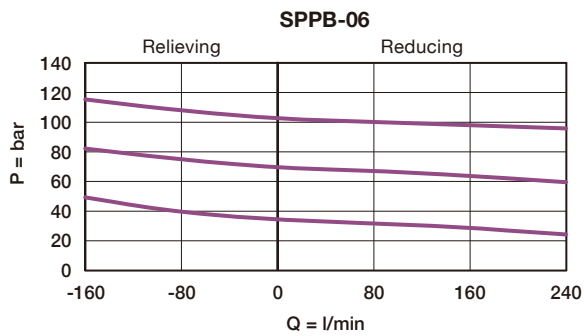
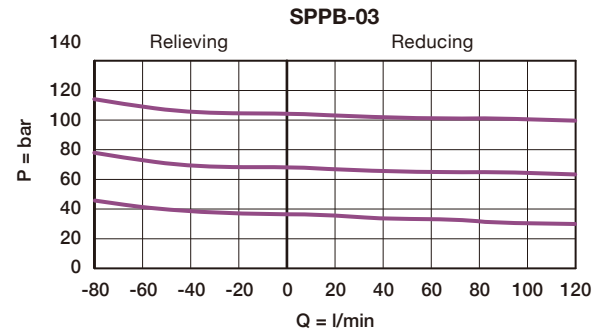
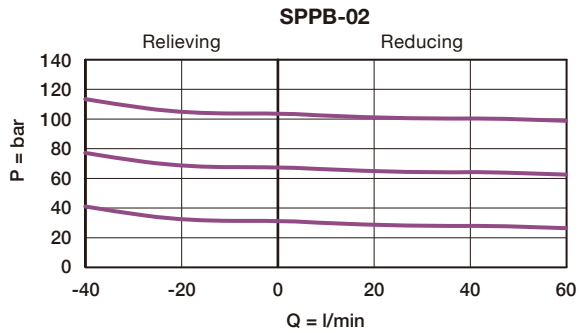
1	Model Name	SPPB
2	Valve Size	02, 03, 06, 08
3	Cavity	ST11A, ST2A, ST17A, ST19A
4	Adjustable Range	A 7 ~ 210 bar
		B 3.5 ~ 105 bar
		C 10.5 ~ 420 bar
		N 4 ~ 55 bar
5	Material of Seal	N buna-N
		V viton
		E EPDM
		H HNBR
		U polyurethane
6	Control Manner	A adjustable screw
		B control knob

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SPPB-02	ST11A	40	350	40/50	-35 ~ 100°C (-31 ~ 212°F)	0.17
SPPB-03	ST2A	80	350	60/70		0.30
SPPB-06	ST17A	160	350	200/215		0.64
SPPB-08	ST19A	320	350	465/500		1.43

PERFORMANCE CURVES

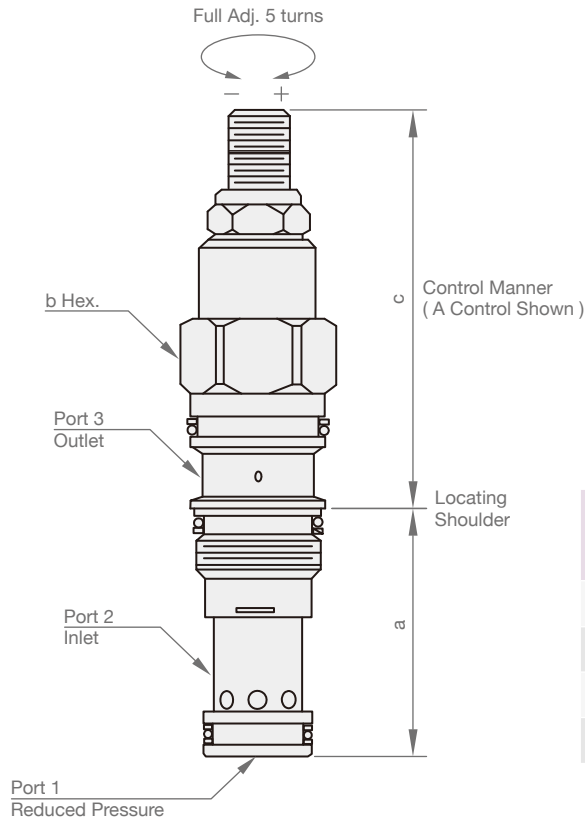
► Regulated Pressure



SPRB

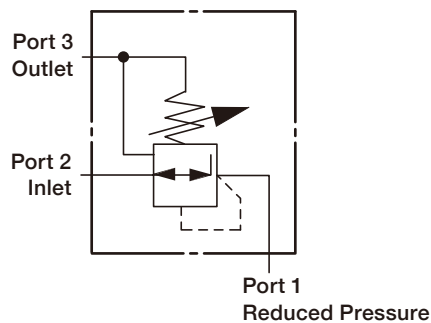
DIMENSION

(UNIT : mm)



Model	a	b	c	
			A	B
SPRB-02	34.9	22.2	79	85
SPRB-03	34.9	28.6	89	96
SPRB-06	46.0	31.8	100	107
SPRB-08	63.5	41.3	124	130

SYMBOLS



ORDER CODES

SPRB - 02 - ST11A - A N A

1 2 3 4 5 6

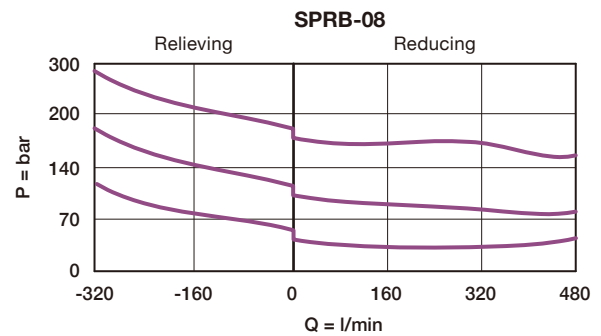
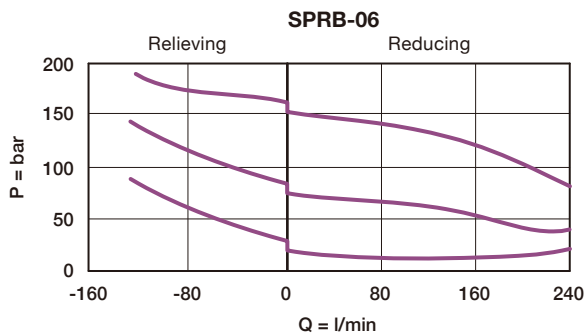
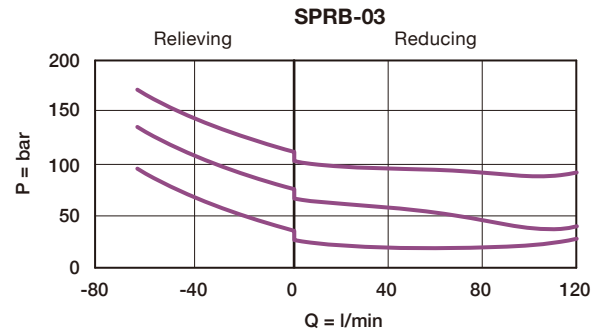
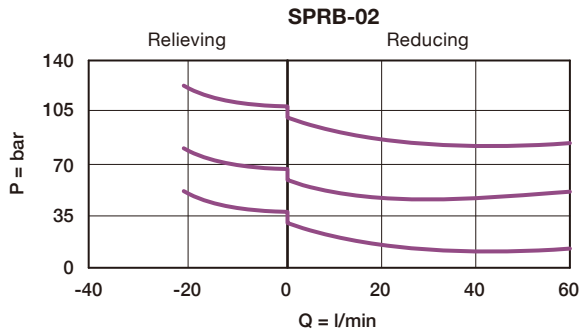
1	Model Name	SPRB
2	Valve Size	02, 03, 06, 08
3	Cavity	ST11A, ST2A, ST17A, ST19A
4	Adjustable Range	A 35 ~ 210 bar
		B 3.5 ~ 105 bar
		D 1.7 ~ 55 bar
		W 50 ~ 315 bar
5	Material of Seal	N buna-N
		V viton
		E EPDM
		H HNBR
		U polyurethane
6	Control Manner	A adjustable screw
		B control knob

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SPRB-02	ST11A	40	350	40/50	-35 ~ 100°C (-31 ~ 212°F)	0.20
SPRB-03	ST2A	80	350	60/70		0.36
SPRB-06	ST17A	160	350	200/215		0.76
SPRB-08	ST19A	320	350	465/500		1.58

PERFORMANCE CURVES

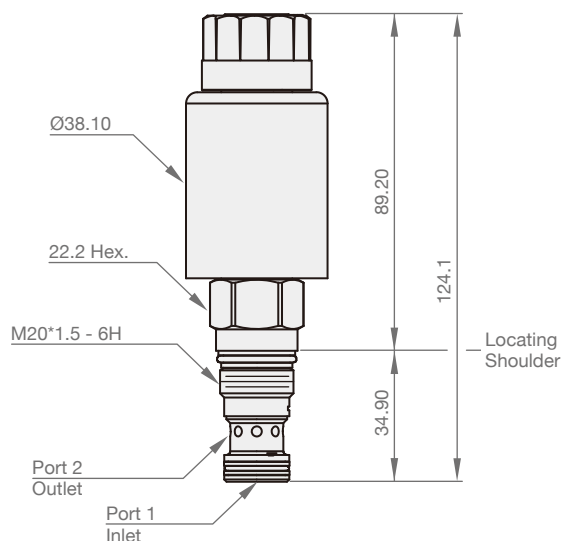
► Regulated Pressure



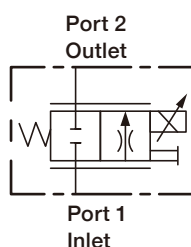
SFPC

DIMENSION

(UNIT : mm)



SYMBOLS



ORDER CODES

SFPC - **02** - **ST13A** - **C** **N** **M** - **DR** **24**

1 2 3 4 5 6 7 8

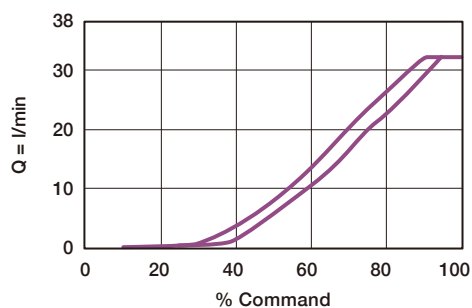
1	Model Name	SFPC	normally closed
2	Capacity (l/min)	02	40
3	Cavity	ST13A	
4	Flow Range (l/min)	C	1 ~ 28
5	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
6	Control Manner	M	manual override
7	Connector (coil)	DG	ISO/DIN43650
		DR	Deutsch DT04-2P
8	Voltage (coil)	12	12 VDC
		24	24 VDC

MODEL SPEC.

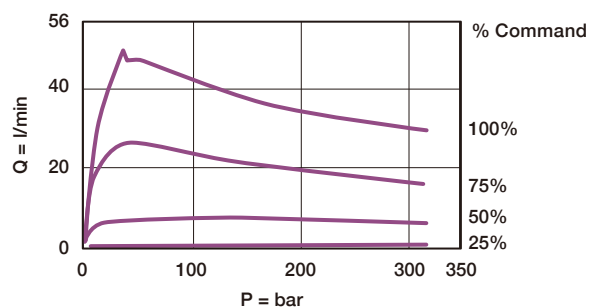
Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Leakage	Installation Torque (Nm)
SFPC-02	ST13A	40	350	less than 100 cc/min	45/50
Model	Hysteresis	Max. Current	Power Consumption (watts)	Body's Weight (kg)	Coil's Weight (kg)
SFPC-02	5%	1820mA@12VDC 910mA@24VDC	22	0.27	0.23

PERFORMANCE CURVES

► Flow vs. Command @14bar



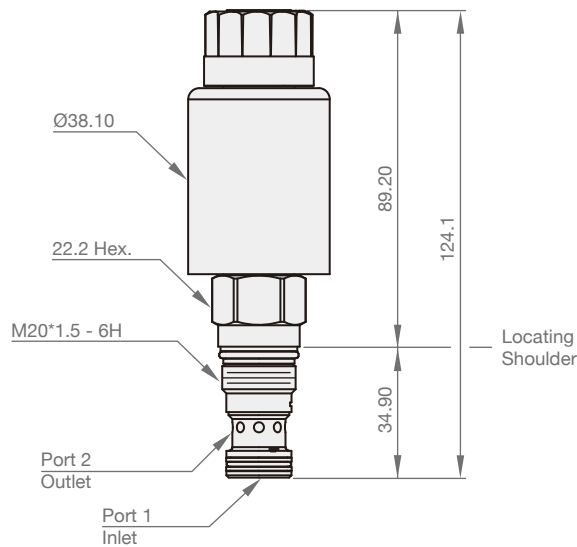
► Flow vs. Pressure Differential



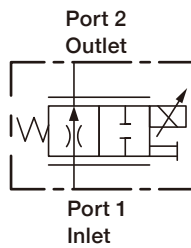
SFPH

DIMENSION

(UNIT : mm)



SYMBOLS



ORDER CODES

SFPH - **02** - **ST13A** - **C** **N** **M** - **DG** **24**

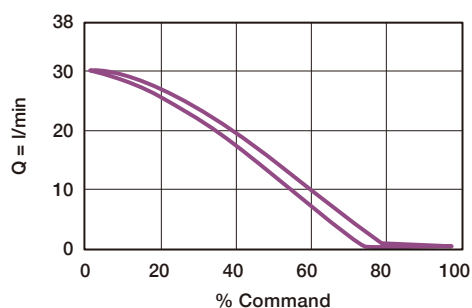
1	Model Name	SFPH	normally open
2	Capacity (l/min)	02	28
3	Cavity	ST13A	
4	Flow Range (l/min)	C	1 ~ 28
5	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
6	Control Manner	M	manual override
7	Connector (coil)	DG	ISO/DIN43650
		DR	Deutsch DT04-2P
8	Voltage (coil)	12	12 VDC
		24	24 VDC

MODEL SPEC.

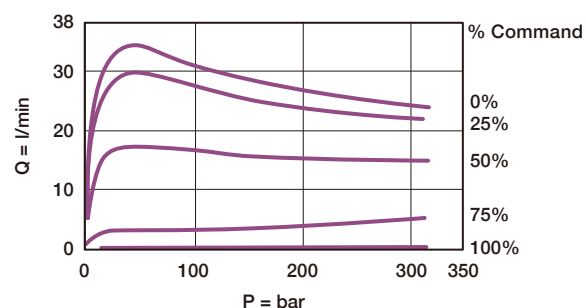
Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Leakage	Installation Torque (Nm)
SFPH-02	ST13A	28	350	less than 100 cc/min	45/50
Model	Hysteresis	Max. Current	Power Consumption (watts)	Body's Weight (kg)	Coil's Weight (kg)
SFPH-02	5%	1820mA@12VDC 910mA@24VDC	22	0.27	0.23

PERFORMANCE CURVES

► Flow vs. Command @14bar



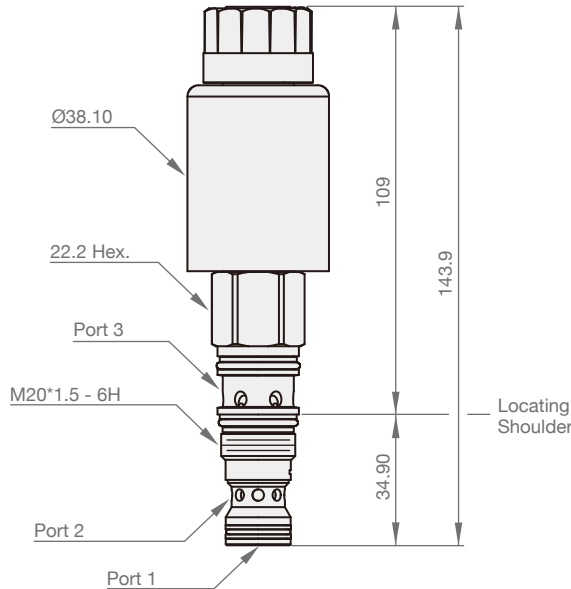
► Flow vs. Pressure Differential



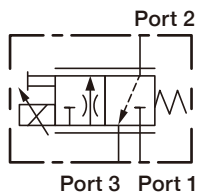
SFMA

DIMENSION

(UNIT : mm)



SYMBOLS



ORDER CODES

SFMA - 02 - ST11A - D N M - DG 24

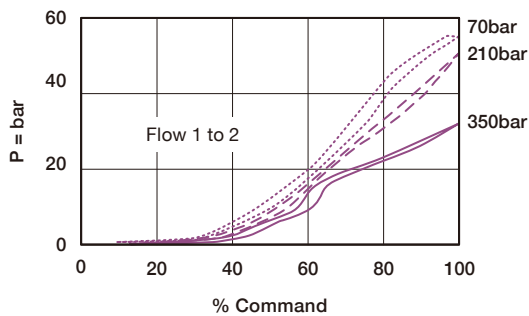
1	Model Name	SFMA	
2	Capacity (l/min)	02	34
3	Cavity	ST11A	
4	Flow Range (l/min)	D	0.4 ~ 34
5	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
6	Control Manner	M	manual override
7	Connector (coil)	DG	ISO/DIN43650
		DR	Deutsch DT04-2P
8	Voltage (coil)	12	12 VDC
		24	24 VDC

MODEL SPEC.

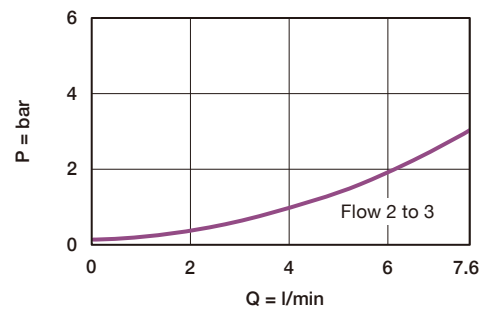
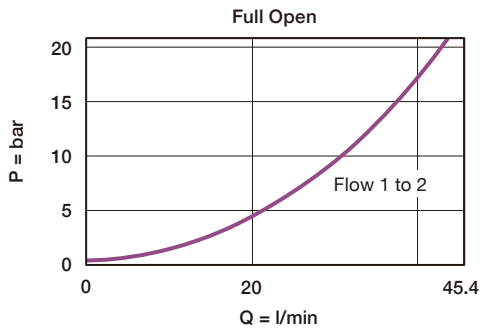
Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Leakage	Installation Torque (Nm)
SFMA-02	ST11A	34	350	less than 100 cc/min	40/50
Model	Hysteresis	Max. Current	Power Consumption (watts)	Body's Weight (kg)	Coil's Weight (kg)
SFMA-02	5%	1820mA@12VDC 910mA@24VDC	22	0.28	0.23

PERFORMANCE CURVES

► Flow vs. Command



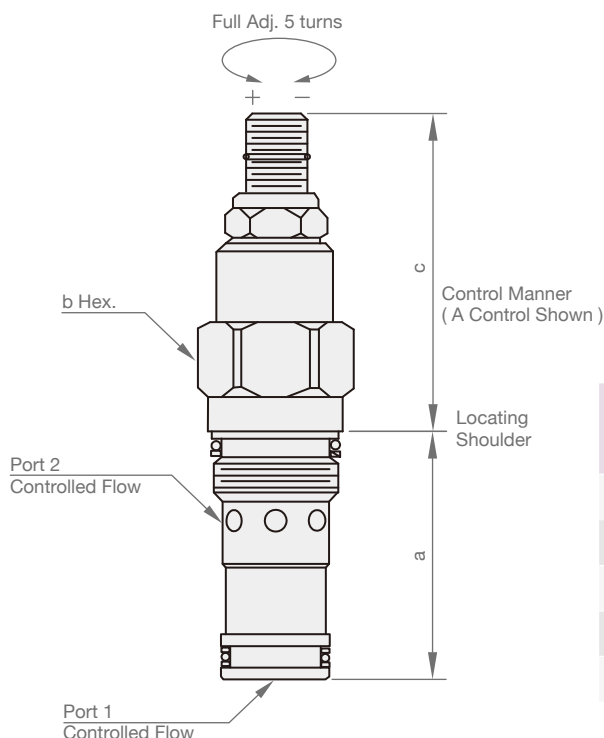
► Pressure vs. Flow



SNFC

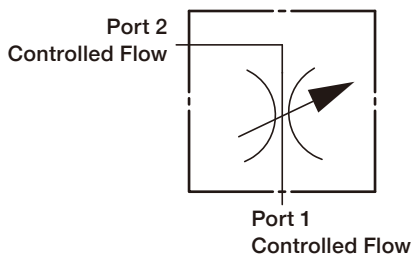
DIMENSION

(UNIT : mm)



Model	a	b	c	
			A	B
SNFC-01	30	19	24.8	30.8
SNFC-02	34.9	22.2	58	64
SNFC-03	41.1	28.6	67	73
SNFC-06	61.9	31.8	73	79
SNFC-08	79.4	41.3	84	90

SYMBOLS



ORDER CODES

SNFC - **02** - **ST13A** - **C** **N** **A**

1 2 3 4 5 6

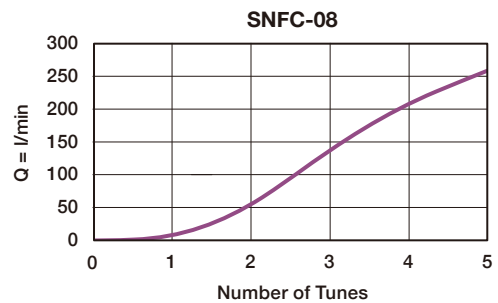
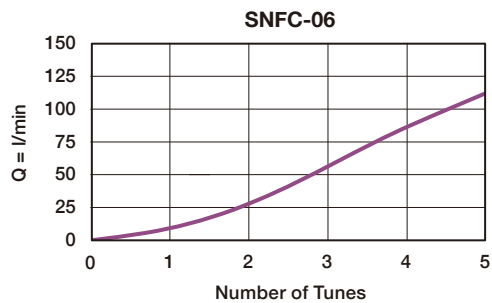
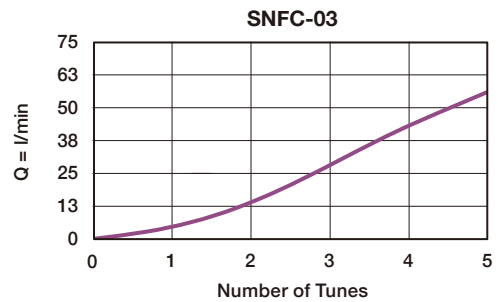
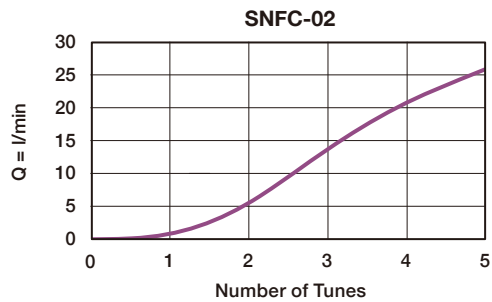
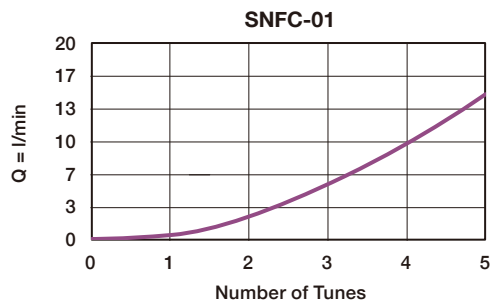
1	Model Name	SNFC	
2	Valve Size	01, 02, 03, 06, 08	
3	Cavity	ST162A, ST13A, ST5A, ST16A, ST18A	
4	Max. Orifice	C	ST162A : 4mm, ST13A : 4.8mm
		A	ST5A : 6.3mm
		E	ST16A : 9.6mm
		G	ST18A : 14.2mm
5	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
6	Control Manner	A	adjustable screw
		B	control knob

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SNFC-01	ST162A	18.9	350	40/50	-35 ~ 100°C (-31 ~ 212°F)	0.07
SNFC-02	ST13A	25	350	40/50		0.14
SNFC-03	ST5A	50	350	60/70		0.26
SNFC-06	ST16A	100	350	200/215		0.55
SNFC-08	ST18A	200	350	465/500		1.21

PERFORMANCE CURVES

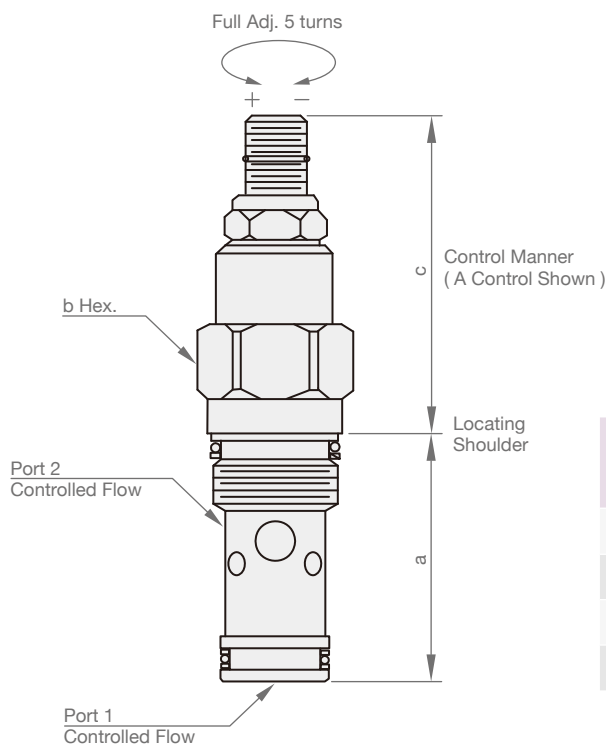
► Adjustment Sensitivity at 7 bar Differential



SNFD

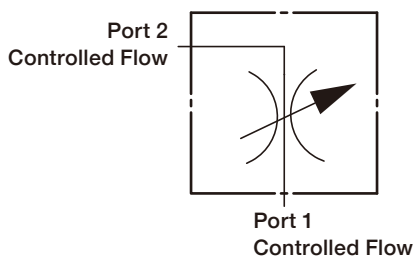
DIMENSION

(UNIT : mm)



Model	a	b	c	
			A	B
SNFD-02	34.9	22.2	58	64
SNFD-03	41.1	28.6	67	73
SNFD-06	61.9	31.8	73	79
SNFD-08	79.4	41.3	84	90

SYMBOLS



ORDER CODES

SNF	D	- 02	- ST13A	- F	N	A
1	2	3	4	5	6	7

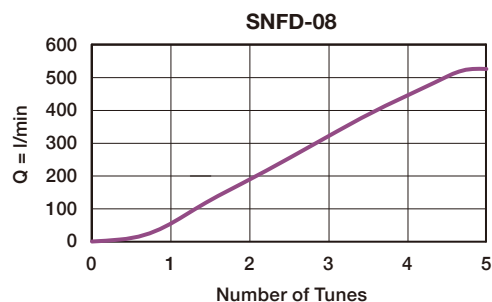
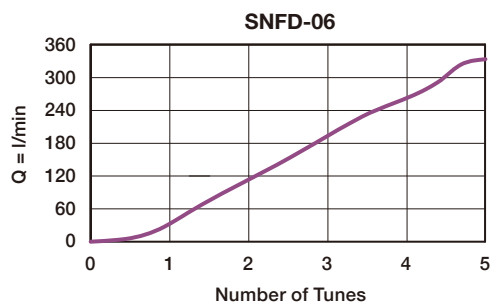
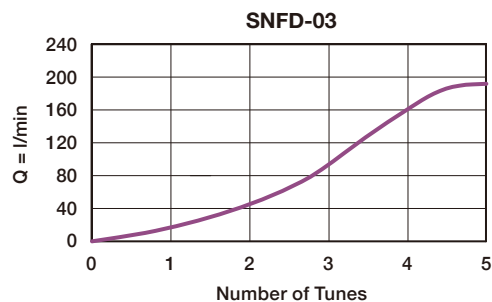
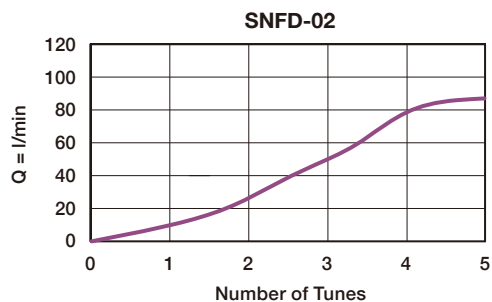
1	Model Name	SNF
2	Operation	D high capacity
3	Valve Size	02, 03, 06, 08
4	Cavity	ST13A, ST5A, ST16A, ST18A
5	Max. Orifice	F ST13A : 8.4mm
		G ST5A : 12.7mm
		H ST16A : 17.5mm
		I ST18A : 21.6mm
6	Material of Seal	N buna-N
		V viton
		E EPDM
		H HNBR
		U polyurethane
7	Control Manner	A adjustable screw
		B control knob

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SNFD-02	ST13A	80	350	40/50	-35 ~ 100°C (-31 ~ 212°F)	0.15
SNFD-03	ST5A	160	350	60/70		0.28
SNFD-06	ST16A	320	350	200/215		0.57
SNFD-08	ST18A	500	350	465/500		1.24

PERFORMANCE CURVES

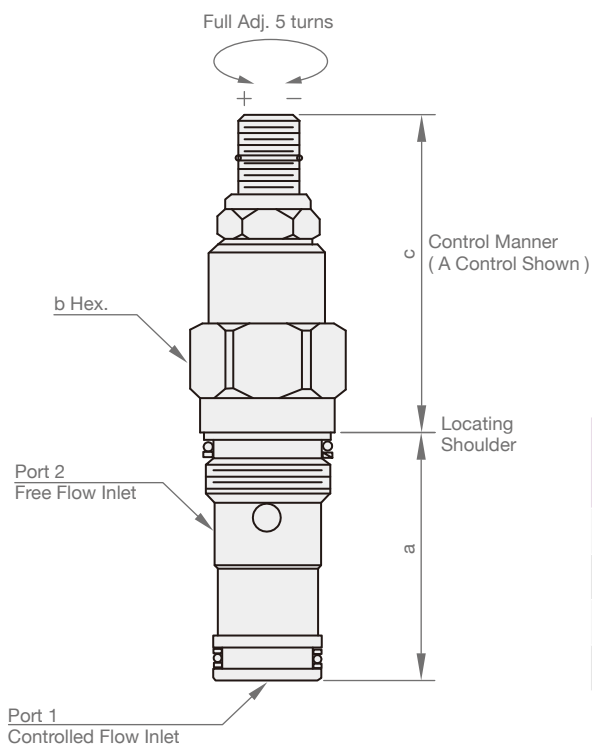
► Adjustment Sensitivity at 7 bar Differential



SNCB

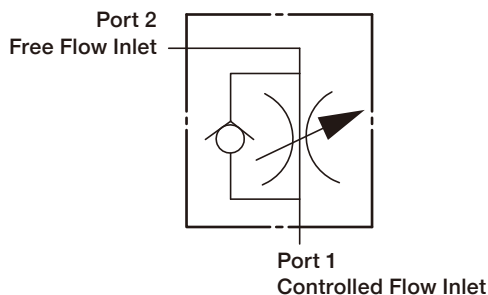
DIMENSION

(UNIT : mm)



Model	a	b	c	
			A	B
SNCB-02	34.9	22.2	58	64
SNCB-03	41.1	28.6	67	73
SNCB-06	61.9	31.8	73	79
SNCB-08	79.4	41.3	84	90

SYMBOLS



ORDER CODES

SNCB - 02 - ST13A - C N A

1 2 3 4 5 6

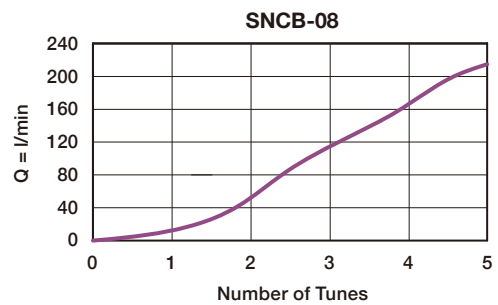
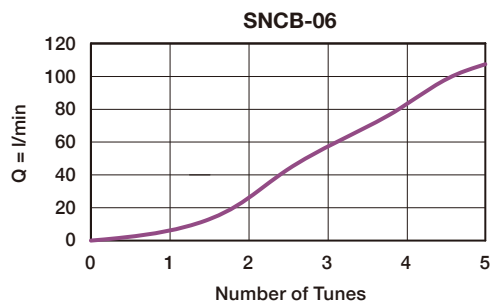
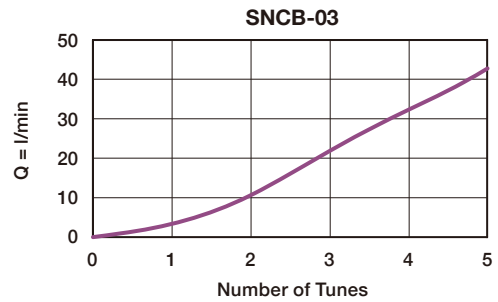
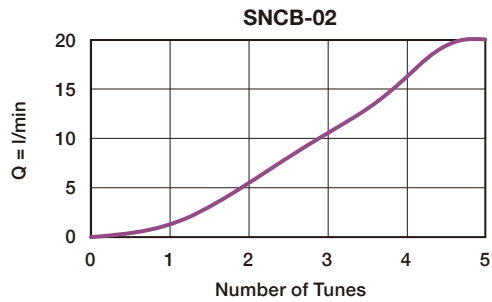
1	Model Name	SNCB	
2	Valve Size	02, 03, 06, 08	
3	Cavity & Max. Orifice	ST13A	4.8mm
		ST5A	6.3mm
		ST16A	9.6mm
		ST18A	14.2mm
4	Cracking Pressure	A	0.3 bar
		C	2.0 bar
		E	5.0 bar
5	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
6	Control Manner	A	adjustable screw
		B	control knob

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SNCB-02	ST13A	25	350	40/50	-35 ~ 100°C (-31 ~ 212°F)	0.14
SNCB-03	ST5A	50	350	60/70		0.26
SNCB-06	ST16A	100	350	200/215		0.58
SNCB-08	ST18A	200	350	465/500		1.23

PERFORMANCE CURVES

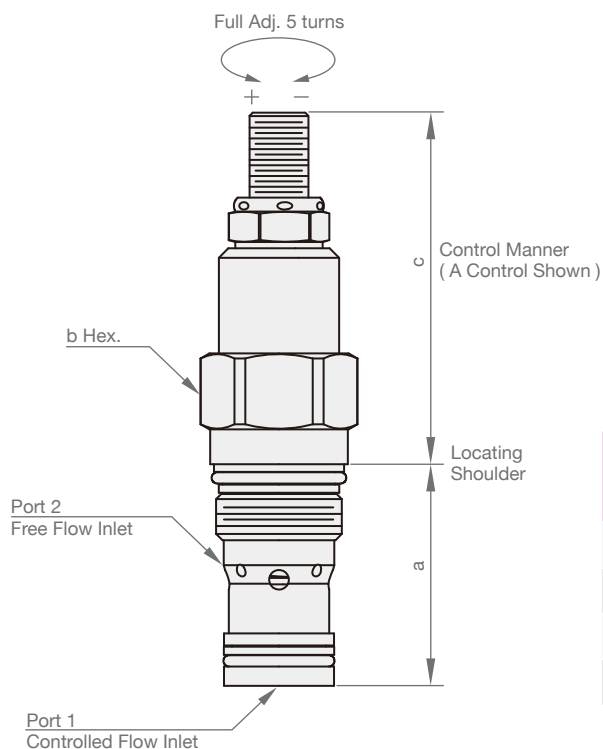
► Adjustment Sensitivity at 7 bar Differential



SFD

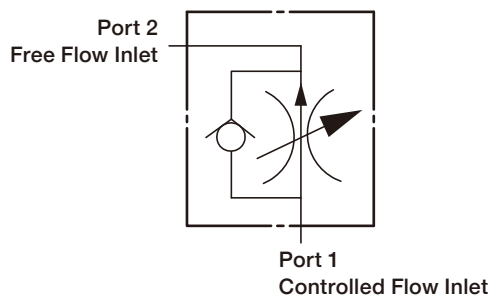
DIMENSION

(UNIT : mm)



Model	a	b	c	
			A	B
SFDA-02	34.9	22.2	58	64
SFDB-03	41.1	28.6	67	73
SFDA-06	61.9	31.8	73	79
SFDA-08	79.4	41.3	84	90

SYMBOLS



ORDER CODES

SFDA - 02 - ST13A - A N A

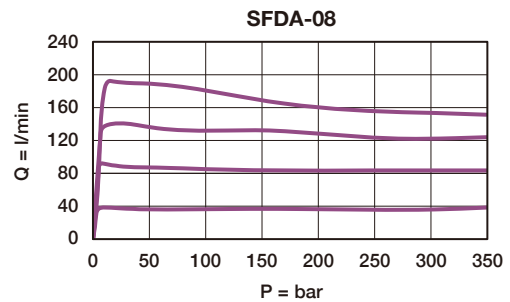
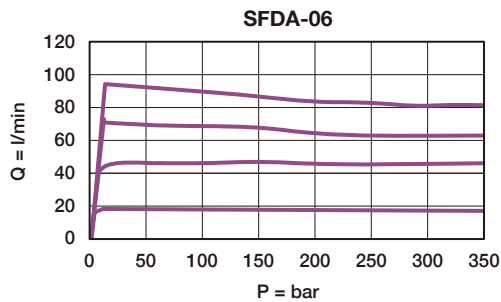
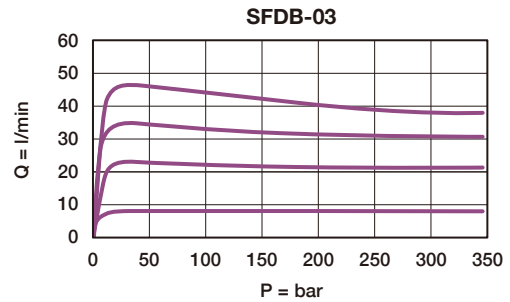
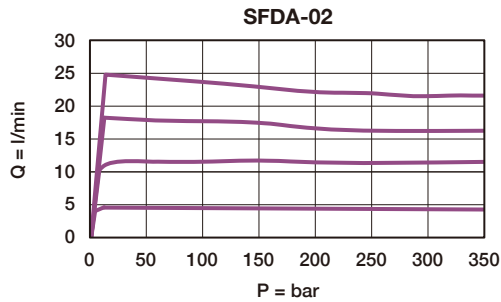
1	Model Name	SFDA, SFDB
2	Valve Size	02, 03, 06, 08
3	Cavity	ST13A, ST5A, ST16A, ST18A
4	Adjustable Range	A A-02 : 0.4 ~ 23 l/min B-03 : 0.4 ~ 45 l/min A-06 : 1.0 ~ 95 l/min A-08 : 1.0 ~ 200 l/min
5	Material of Seal	N buna-N
		V viton
		E EPDM
		H HNBR
		U polyurethane
6	Control Manner	A adjustable screw
		B control knob

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SFDA-02	ST13A	23	350	40/50	-35 ~ 100°C (-31 ~ 212°F)	0.14
SFDB-03	ST5A	45	350	60/70		0.28
SFDA-06	ST16A	95	350	200/215		0.55
SFDA-08	ST18A	200	350	465/500		1.23

PERFORMANCE CURVES

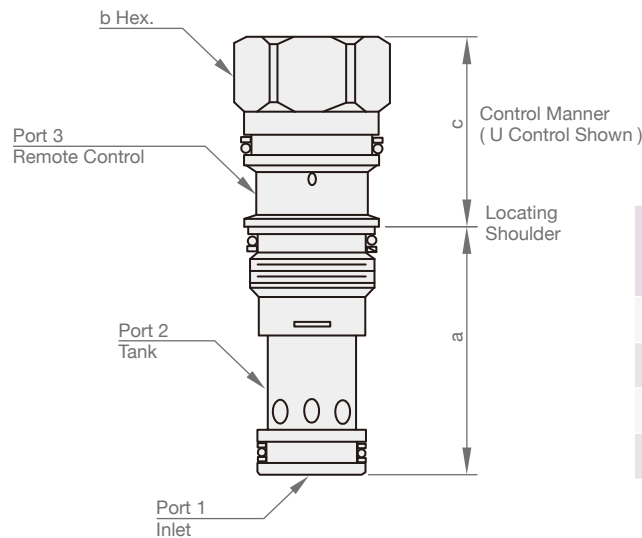
► Typical Performance



SLRA

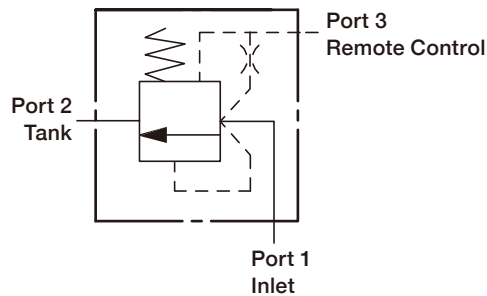
DIMENSION

(UNIT : mm)



Model	a	b	c	
			U	A
SLRA-02	34.9	22.2	31	64
SLRA-03	34.9	28.6	35	72
SLRA-06	46.0	31.8	46	84
SLRA-08	63.5	41.3	59	100

SYMBOLS



ORDER CODES



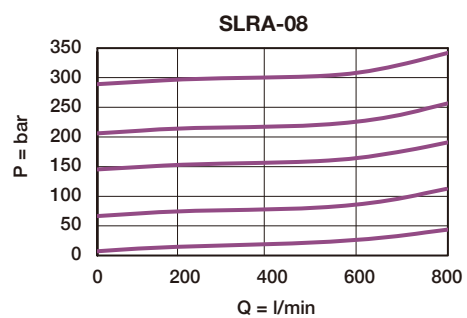
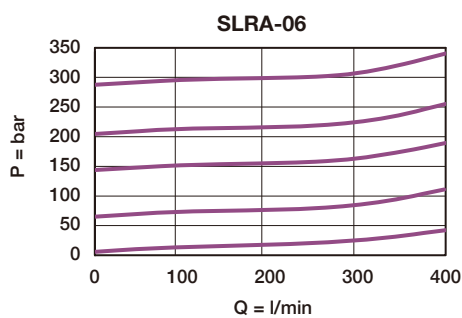
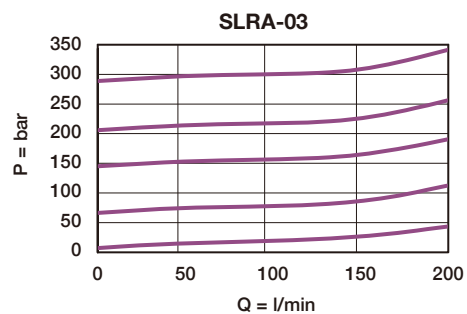
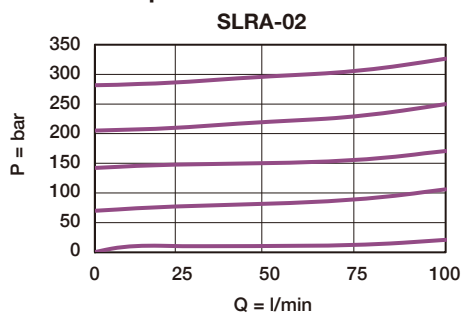
1	Model Name	SLR	
2	Type	A	internal pilot
3	Valve Size	02, 03, 06, 08	
4	Cavity	ST11A, ST2A, ST17A, ST19A	
5	Cracking Pressure	D	3.5 bar
		F	7.0 bar
		G	10.0 bar
6	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
7	Control Manner	U	unadjustable
		A	adjustable screw

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SLRA-02	ST11A	60	350	40/50	-35 ~ 100°C (-31 ~ 212°F)	0.12
SLRA-03	ST2A	120	350	60/70		0.22
SLRA-06	ST17A	240	350	200/215		0.50
SLRA-08	ST19A	480	350	465/500		1.15

PERFORMANCE CURVES

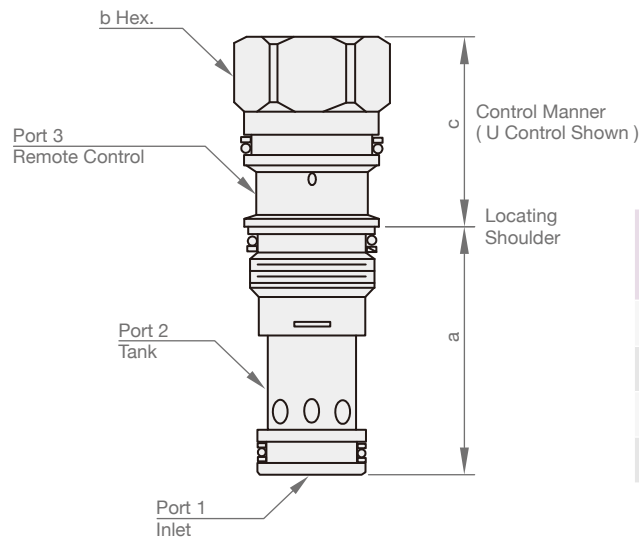
► Typical Pressure Drop



SLRC

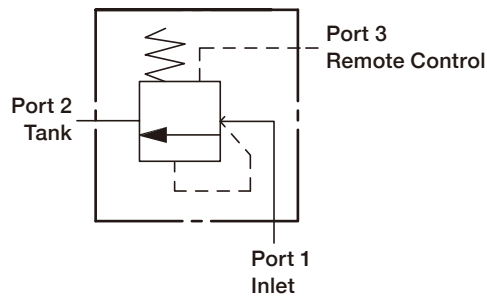
DIMENSION

(UNIT : mm)



Model	a	b	c	
			U	A
SLRC-02	34.9	22.2	31	64
SLRC-03	34.9	28.6	35	72
SLRC-06	46.0	31.8	46	84
SLRC-08	63.5	41.3	59	100

SYMBOLS



ORDER CODES

SLR	C	- 02	- ST11A	- D	N	U
1	2	3	4	5	6	7

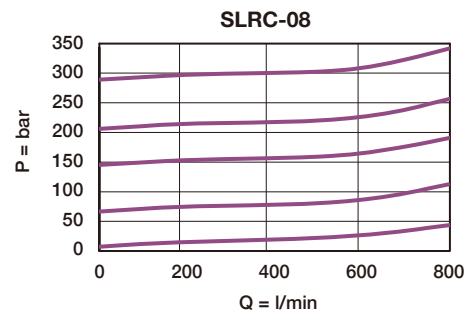
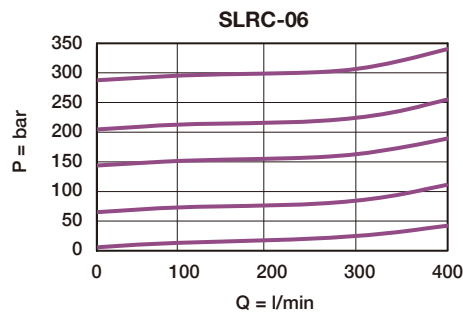
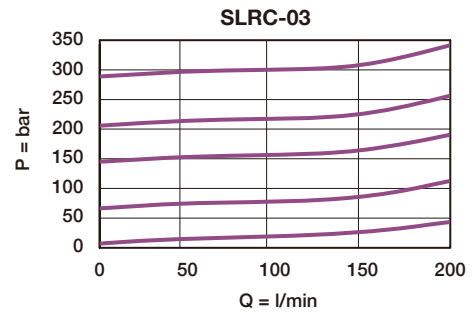
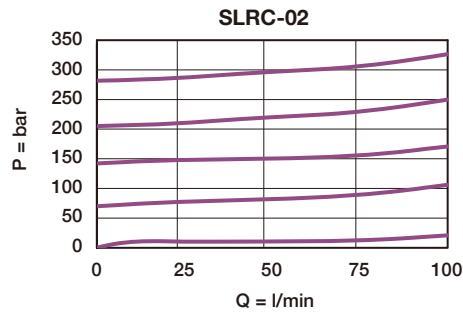
1	Model Name	SLR	
2	Type	C	external pilot
3	Valve Size	02, 03, 06, 08	
4	Cavity	ST11A, ST2A, ST17A, ST19A	
5	Cracking Pressure	D	3.5 bar
		F	7.0 bar
		G	10.0 bar
6	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
7	Control Manner	U	unadjustable
		A	adjustable screw

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SLRC-02	ST11A	60	350	40/50	-35 ~ 100°C (-31 ~ 212°F)	0.12
SLRC-03	ST2A	120	350	60/70		0.22
SLRC-06	ST17A	240	350	200/215		0.50
SLRC-08	ST19A	480	350	465/500		1.15

PERFORMANCE CURVES

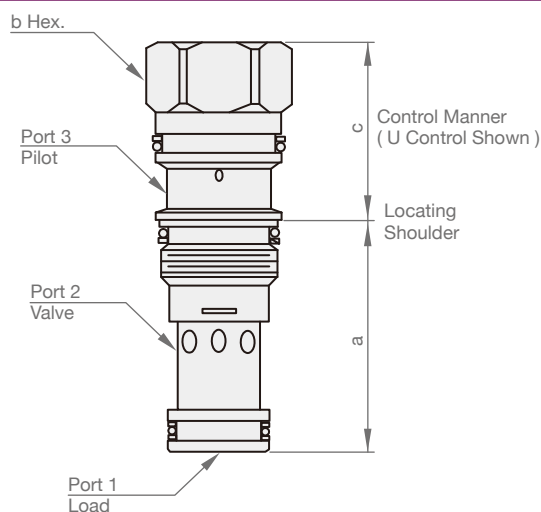
► Typical Pressure Drop



SCKA

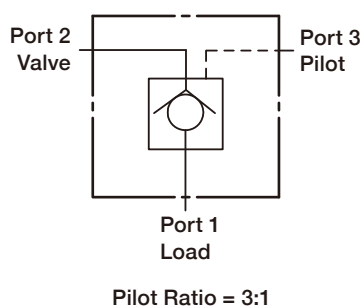
DIMENSION

(UNIT : mm)



Model	a	b	c	
			U	A
SCKA-02	34.9	22.2	31	64
SCKA-03	34.9	28.6	35	72
SCKA-06	46.0	31.8	46	84
SCKA-08	63.5	41.3	59	100

SYMBOLS



ORDER CODES

SCK **A** - **02** - **ST11A** - **C** **N** **U**

1 2 3 4 5 6 7

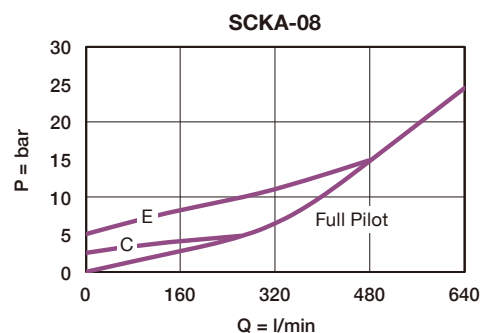
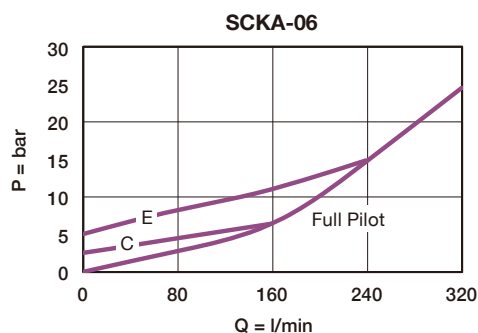
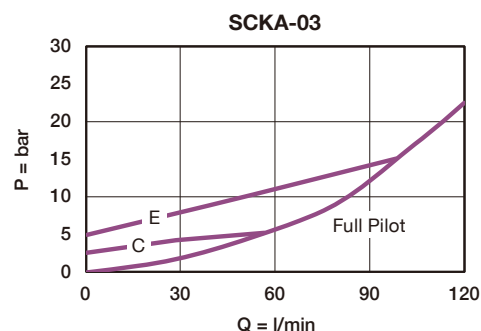
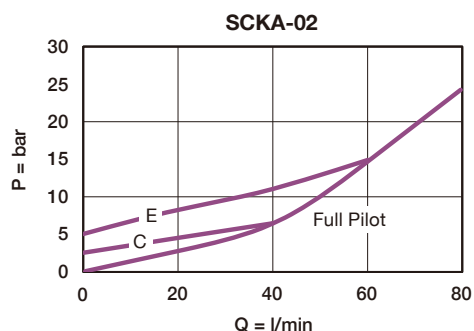
1	Model Name	SCK	
2	Pilot Version	A	bleed through pilot & POM seat
3	Valve Size	02, 03, 06, 08	
4	Cavity	ST11A, ST2A, ST17A, ST19A	
5	Cracking Pressure	A	0.3 bar
		C	2.0 bar
		E	5.0 bar
6	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
7	Control Manner	U	unadjustable
		A	adjustable screw

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SCKA-02	ST11A	60	350	45/50	-35 ~ 100°C (-31 ~ 212°F)	0.13
SCKA-03	ST2A	120	350	60/70		0.24
SCKA-06	ST17A	240	350	200/215		0.53
SCKA-08	ST19A	480	350	465/500		1.16

PERFORMANCE CURVES

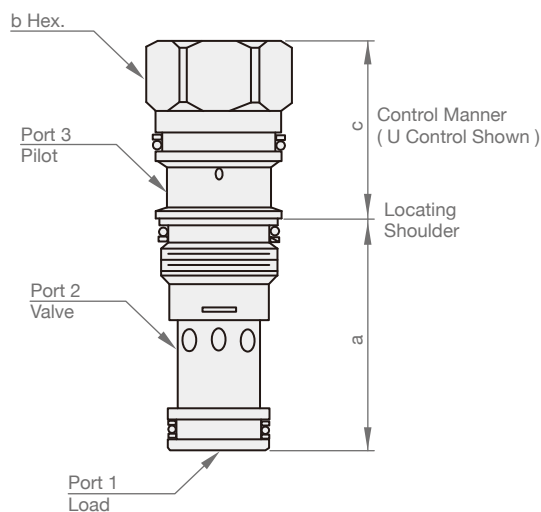
► Typical Pressure Drop



SCKB

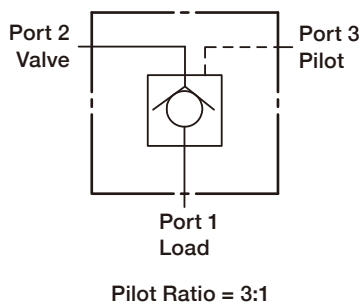
DIMENSION

(UNIT : mm)



Model	a	b	c	
			U	A
SCKB-01	31.2	19	32	64
SCKB-02	34.9	22.2	31	64
SCKB-03	34.9	28.6	35	72
SCKB-06	46.0	31.8	46	84
SCKB-08	63.5	41.3	59	100

SYMBOLS



ORDER CODES

SCK **B** - **02** - **ST11A** - **C** **N** **U**

1 2 3 4 5 6 7

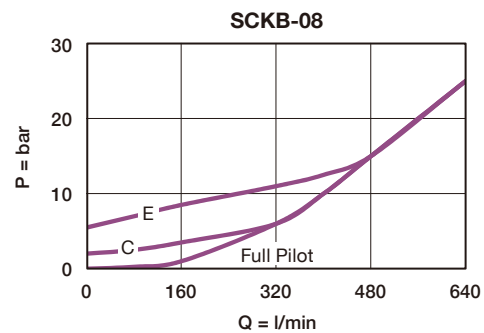
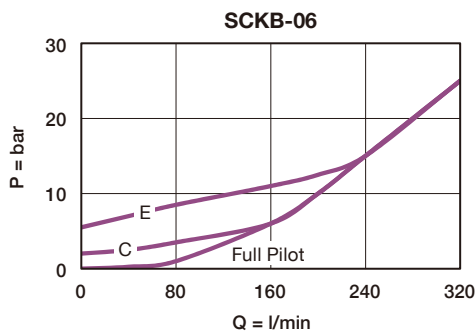
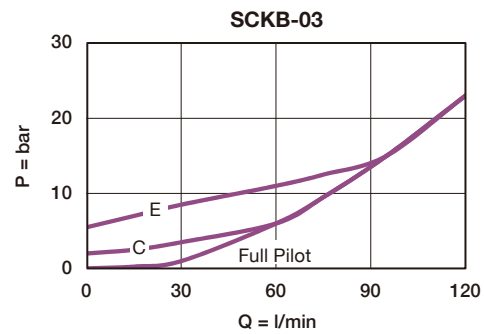
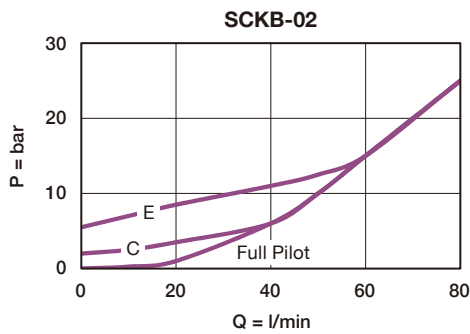
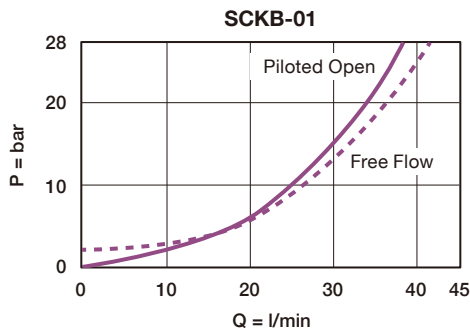
1	Model Name	SCK
2	Pilot Version	B bleed through pilot
3	Valve Size	01, 02, 03, 06, 08
4	Cavity	ST163A, ST11A, ST2A, ST17A, ST19A
5	Cracking Pressure	A 0.3 bar
		C 2.0 bar
		E 5.0 bar
6	Material of Seal	N buna-N
		V viton
		E EPDM
		H HNBR
		U polyurethane
7	Control Manner	U unadjustable
		A adjustable screw

PERFORMANCE CURVES

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SCKB-01	ST163A	28.4	350	40/48	-35 ~ 100°C (-31 ~ 212°F)	0.09
SCKB-02	ST11A	60	350	40/50		0.10
SCKB-03	ST2A	120	350	60/70		0.24
SCKB-06	ST17A	240	350	200/215		0.53
SCKB-08	ST19A	480	350	465/500		1.16

MODEL SPEC.

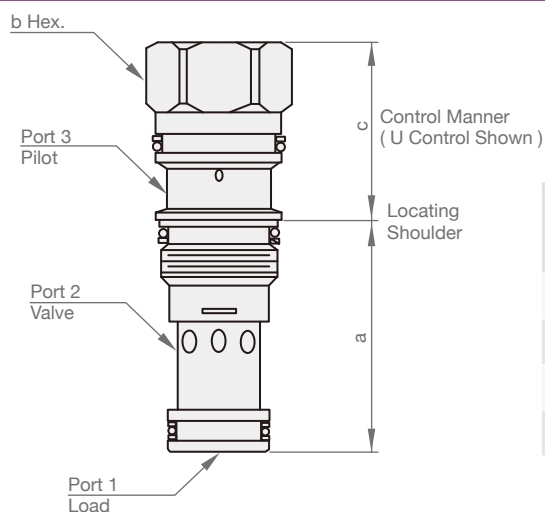
► Typical Pressure Drop



SCKC

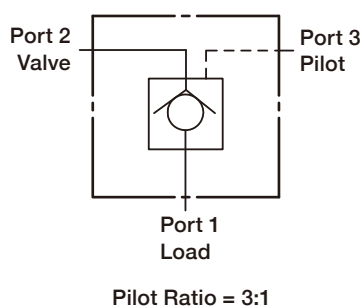
DIMENSION

(UNIT : mm)



Model	a	b	c	
			U	A
SCKC-02	34.9	22.2	31	64
SCKC-03	34.9	28.6	35	72
SCKC-06	46.0	31.8	46	84
SCKC-08	63.5	41.3	59	100

SYMBOLS



ORDER CODES

SCK **C** - **02** - **ST11A** - **C** **N** **U**

1 2 3 4 5 6 7

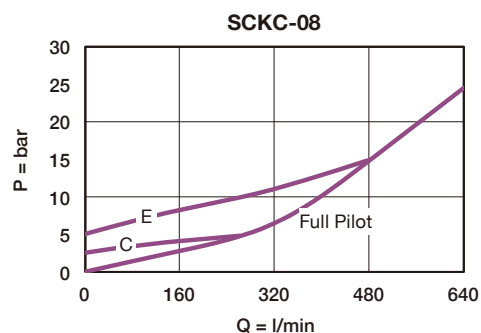
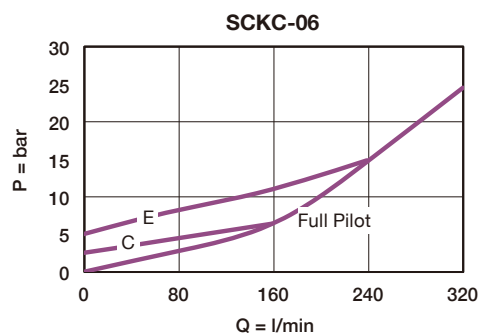
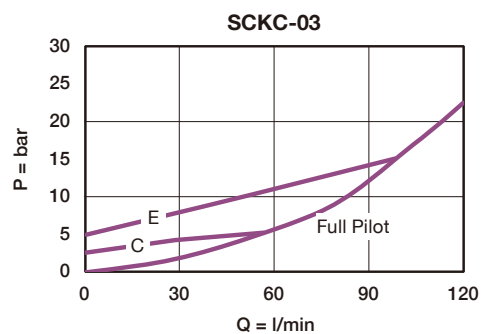
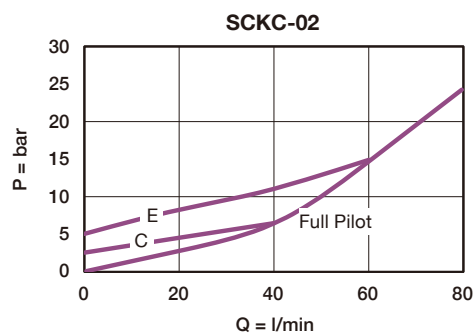
1	Model Name	SCK	
2	Pilot Version	C	sealed pilot & POM seat
3	Valve Size	02, 03, 06, 08	
4	Cavity	ST11A, ST2A, ST17A, ST19A	
5	Cracking Pressure	A	0.3 bar
		C	2.0 bar
		E	5.0 bar
6	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
7	Control Manner	U	unadjustable
		A	adjustable screw

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SCKC-02	ST11A	60	350	45/50	-35 ~ 100°C (-31 ~ 212°F)	0.13
SCKC-03	ST2A	120	350	60/70		0.24
SCKC-06	ST17A	240	350	200/215		0.53
SCKC-08	ST19A	480	350	465/500		1.16

PERFORMANCE CURVES

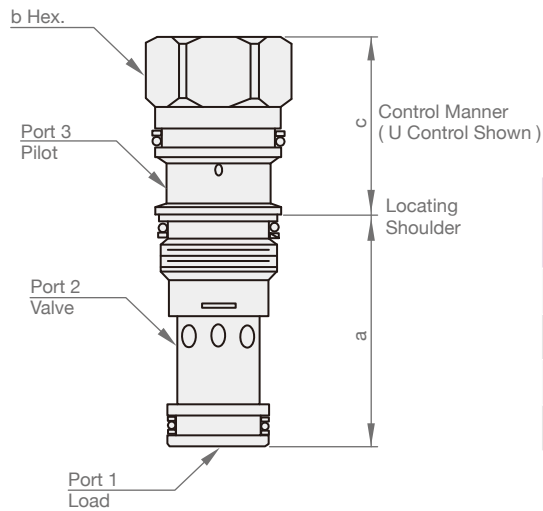
► Typical Pressure Drop



SCKD

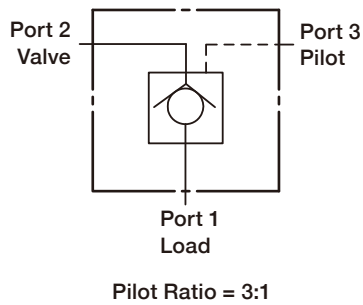
DIMENSION

(UNIT : mm)



Model	a	b	c	
			U	A
SCKD-02	34.9	22.2	31	64
SCKD-03	34.9	28.6	35	72
SCKD-06	46.0	31.8	46	84
SCKD-08	63.5	41.3	59	100

SYMBOLS



ORDER CODES

SCK	D	- 02	- ST11A	- C	N	U
1	2	3	4	5	6	7

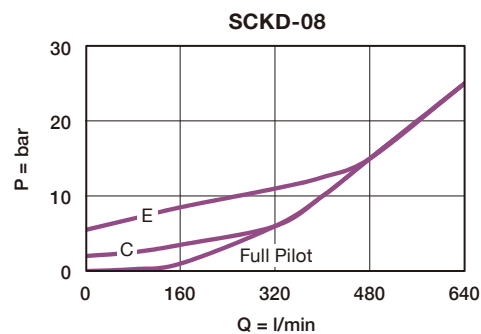
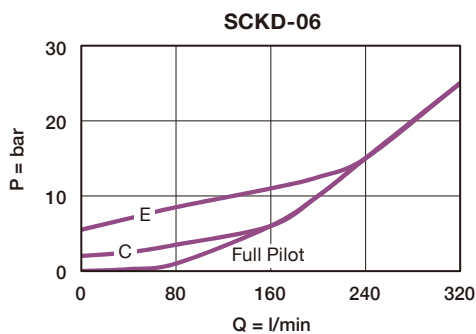
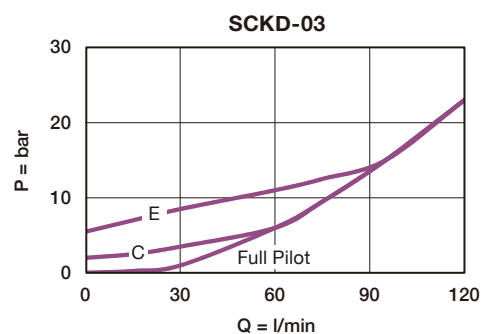
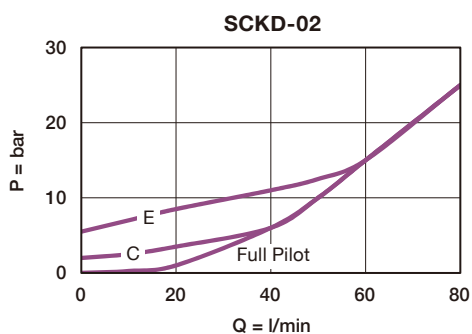
1	Model Name	SCK	
2	Pilot Version	D	sealed pilot
3	Valve Size	02, 03, 06, 08	
4	Cavity	ST11A, ST2A, ST17A, ST19A	
5	Cracking Pressure	A	0.3 bar
		C	2.0 bar
		E	5.0 bar
6	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
7	Control Manner	U	unadjustable
		A	adjustable screw

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SCKD-02	ST11A	60	350	40/50	-35 ~ 100°C (-31 ~ 212°F)	0.13
SCKD-03	ST2A	120	350	60/70		0.24
SCKD-06	ST17A	240	350	200/215		0.53
SCKD-08	ST19A	480	350	465/500		1.16

PERFORMANCE CURVES

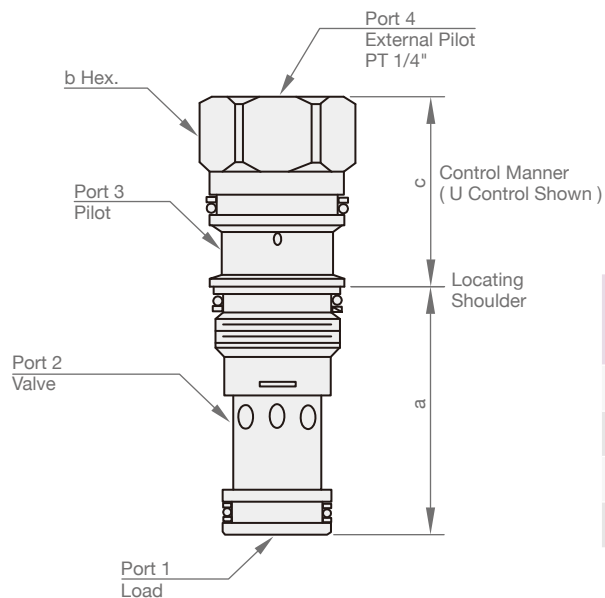
► Typical Pressure Drop



SCKF

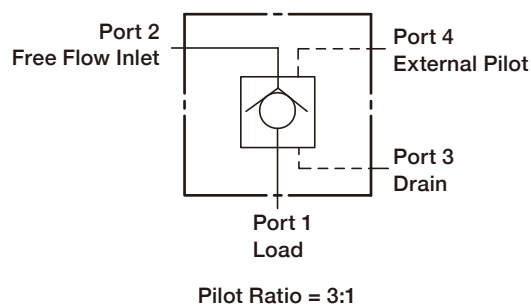
DIMENSION

(UNIT : mm)



Model	a	b	c	
			U	A
SCKF-02	34.9	22.2	31	64
SCKF-03	34.9	28.6	35	72
SCKF-06	46.0	31.8	46	84
SCKF-08	63.5	41.3	59	100

SYMBOLS



ORDER CODES

SCK F - 02 - ST11A - C N PN

1 2 3 4 5 6 7

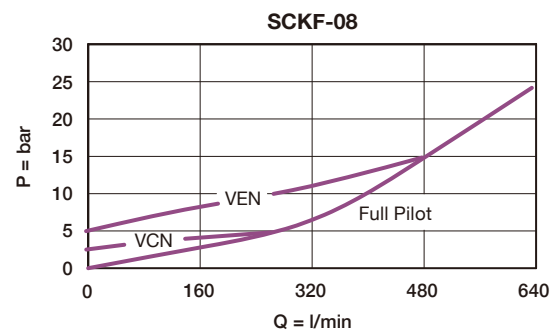
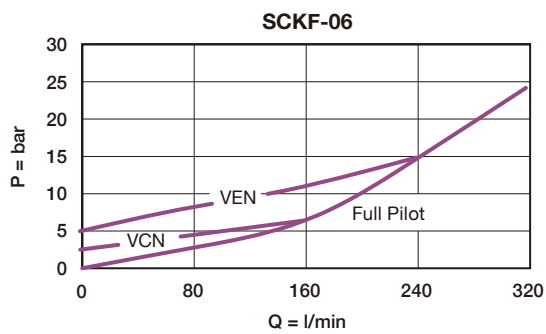
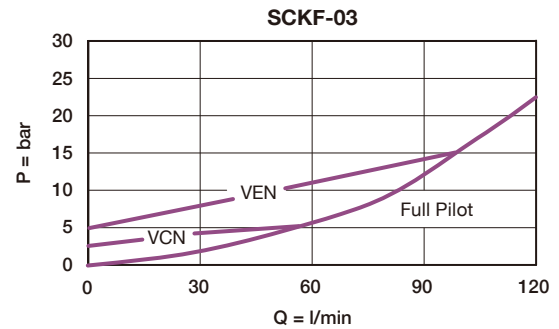
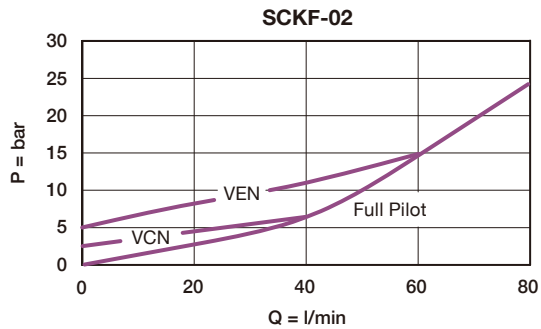
1	Model Name	SCK	
2	Pilot Version	F	external pilot
3	Valve Size	02, 03, 06, 08	
4	Cavity	ST11A, ST2A, ST17A, ST19A	
5	Cracking Pressure	A	0.3 bar
		C	2.0 bar
		E	5.0 bar
6	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
7	Control Manner	PN	external pilot port

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SCKF-02	ST11A	60	350	40/50	-35 ~ 100°C (-31 ~ 212°F)	0.13
SCKF-03	ST2A	120	350	60/70		0.24
SCKF-06	ST17A	240	350	200/215		0.53
SCKF-08	ST19A	480	350	465/500		1.16

PERFORMANCE CURVES

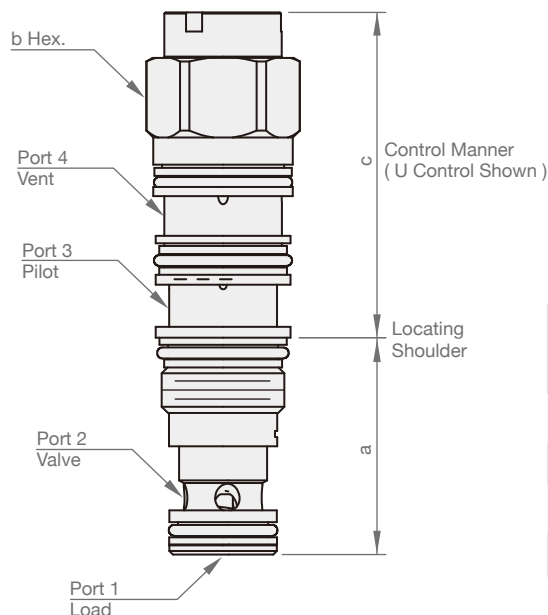
► Typical Pressure Drop



SCVV

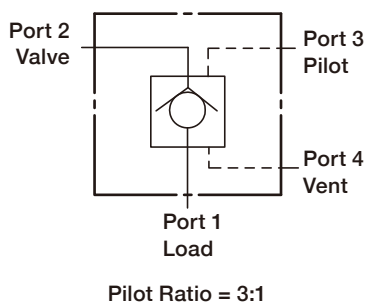
DIMENSION

(UNIT : mm)



Model	a	b	c	
			U	A
SCVV-02	35.1	22.2	53.3	59.4
SCVV-03	35.1	28.6	59.4	65.0
SCVV-06	46.0	31.8	71.4	77.0
SCVV-08	63.5	41.3	88.9	95.8

SYMBOLS



ORDER CODES

SCVV - **02** - **ST21A** - **C** **N** **U**

1 2 3 4 5 6

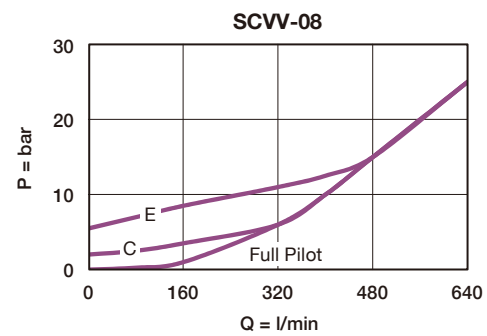
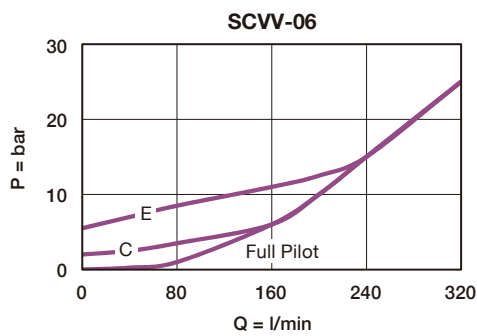
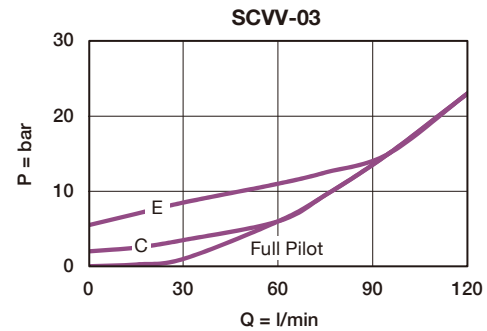
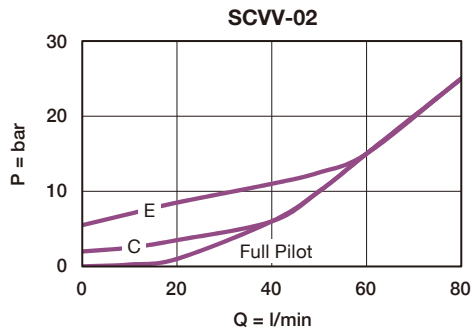
1	Model Name	SCVV	
2	Valve Size	02, 03, 06, 08	
3	Cavity	ST21A, ST22A, ST23A, ST24A	
5	Cracking Pressure	A	0.3 bar
		C	2.0 bar
		E	5.0 bar
6	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
4	Control Manner	U	standard pilot
		A	manual load release

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SCVV-02	ST21A	60	350	45/50	-35 ~ 100°C (-31 ~ 212°F)	0.18
SCVV-03	ST22A	120	350	60/70		0.30
SCVV-06	ST23A	240	350	200/215		0.68
SCVV-08	ST24A	480	350	465/500		1.49

PERFORMANCE CURVES

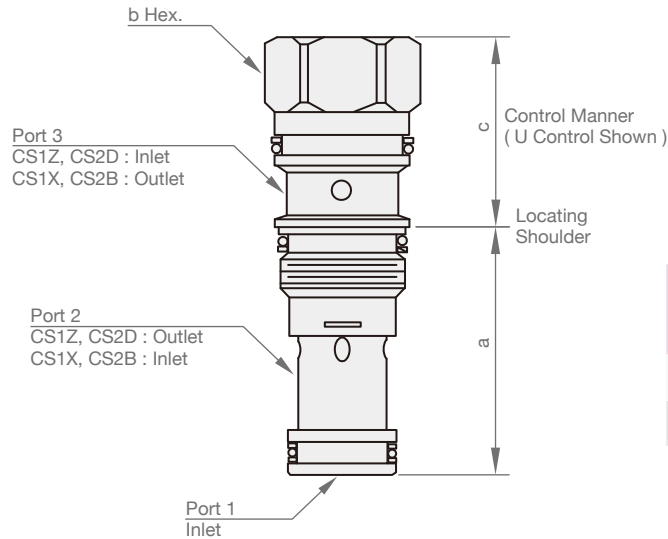
► Unloaded Pressure Drop



SCSD, SCSB

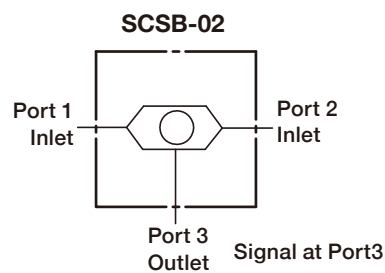
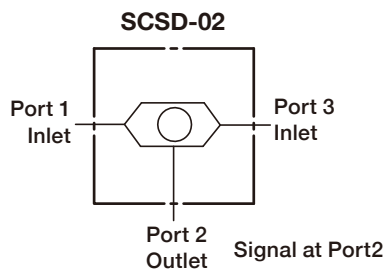
DIMENSION

(UNIT : mm)



Model	a	b	c
			U
SCSD-02	34.9	22.2	31
SCSB-02	34.9	22.2	31

SYMBOLS



ORDER CODES

SCS	D	- 02 -	ST11A	- X	N	U
1	2	3	4	5	6	7

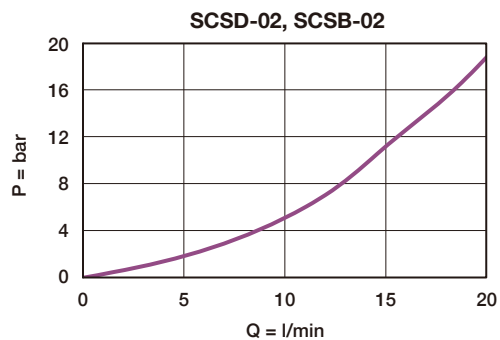
1	Model Name	SCS	
2	Operation	D	ST11A, signal at port 2
		B	ST11A, signal at port 3
3	Valve Size	02	
4	Cavity	ST11A	
5	Adjustment Range	X	unadjustable
6	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
7	Control Manner	U	unadjustable

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SCSD-02	ST11A	10	350	40/50	-35 ~ 100°C (-31 ~ 212°F)	0.12
SCSB-02	ST11A	10	350	40/50		0.12

PERFORMANCE CURVES

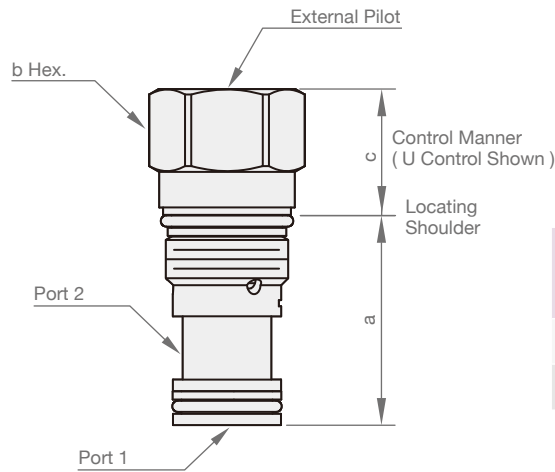
► Typical Pressure Drop



SCSA, SCSC

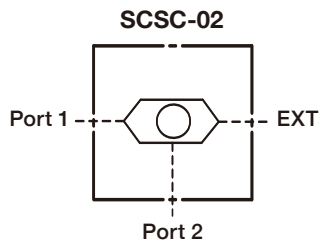
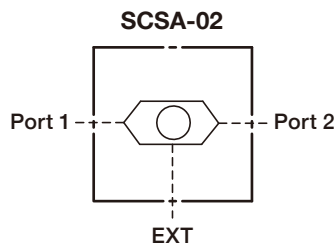
DIMENSION

(UNIT : mm)



Model	a	b	c
			U
SCSA-02	34.9	22.2	19
SCSC-02	34.9	22.2	19

SYMBOLS



ORDER CODES

SCS	A	- 02	- ST13A	- X	N	PS
1	2	3	4	5	6	7

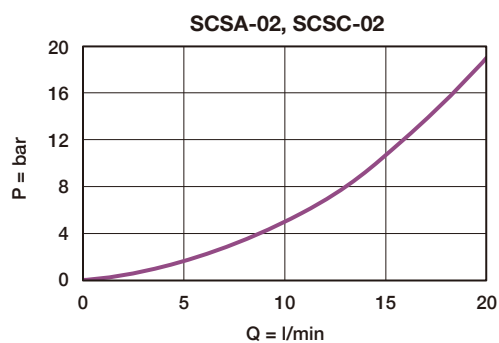
1	Model Name	SCS	
2	Operation	A	signal external
		C	signal at port 2
3	Valve Size	02	
4	Cavity	ST13A	
5	Adjustment Range	X	unadjustable
6	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
7	Control Manner	PS	external 4-SAE port

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SCSA-02	ST13A	10	350	45/50	-35 ~ 100°C (-31 ~ 212°F)	0.1
SCSC-02	ST13A	10	350	45/50		0.1

PERFORMANCE CURVES

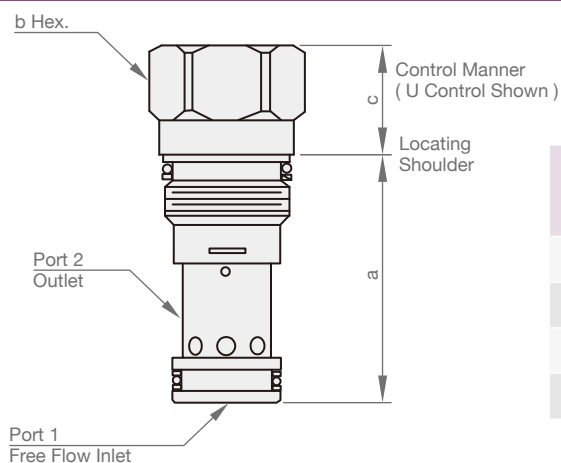
► Typical Pressure Drop



SCXA

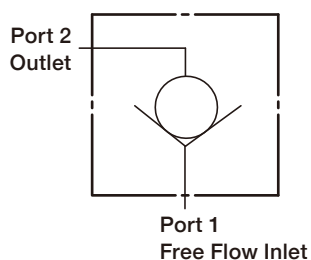
DIMENSION

(UNIT : mm)



Model	a	b	c
			U
SCXA-02	34.9	22.2	19
SCXA-03	41.1	28.6	18
SCXA-06	61.9	31.8	25
SCXA-08	79.4	41.3	31

SYMBOLS



ORDER CODES

SCX	A	-	02	-	ST13A	-	C	N	U
1	2		3		4		5	6	7

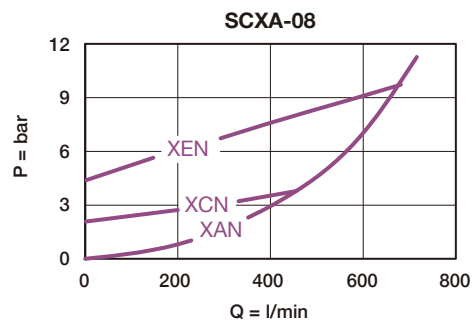
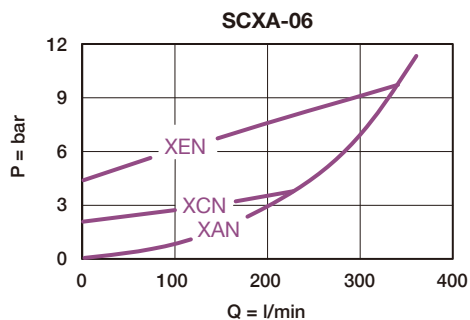
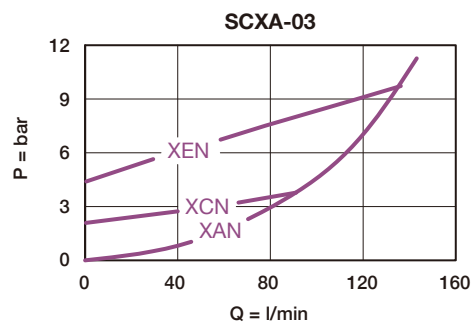
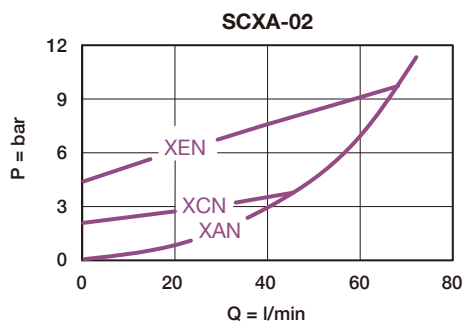
1	Model Name	SCX
2	Operation	A free flow port1 to port2
3	Valve Size	02, 03, 06, 08
4	Cavity	ST13A, ST5A, ST16A, ST18A
5	Cracking Pressure	A 0.3 bar
		B 1.0 bar
		C 2.0 bar
		D 3.5 bar
		E 5.0 bar
6	Material of Seal	N buna-N
		V viton
		E EPDM
		H HNBR
		U polyurethane
7	Control Manner	U unadjustable

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SCXA-02	ST13A	80	350	40/50	-35 ~ 100°C (-31 ~ 212°F)	0.12
SCXA-03	ST5A	160	350	60/70		0.18
SCXA-06	ST16A	320	350	200/215		0.42
SCXA-08	ST18A	640	350	465/500		0.93

PERFORMANCE CURVES

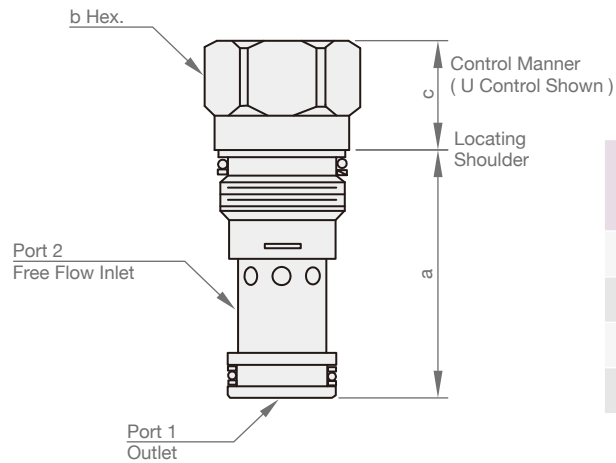
► Typical Pressure Drop



SCXB

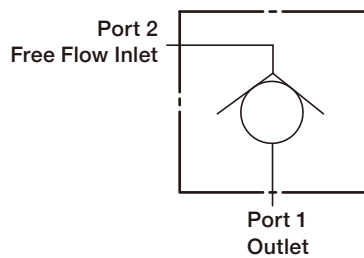
DIMENSION

(UNIT : mm)



Model	a	b	c
			U
SCXB-02	34.9	22.2	19
SCXB-03	41.1	28.6	18
SCXB-06	61.9	31.8	25
SCXB-08	79.4	41.3	31

SYMBOLS



ORDER CODES

SCX	B	- 02 -	ST13A	- C	N	U
1	2	3	4	5	6	7

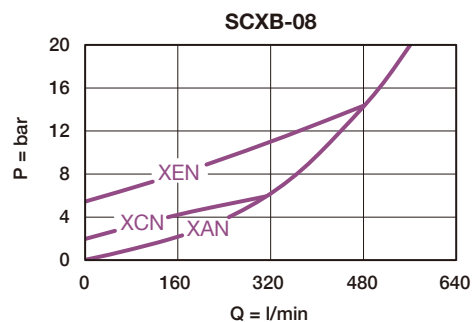
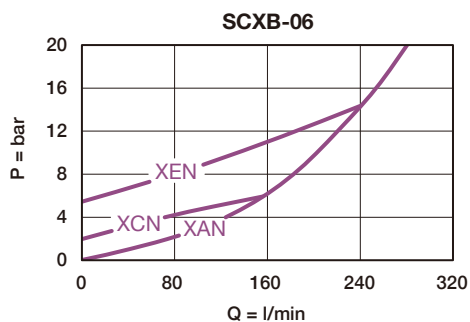
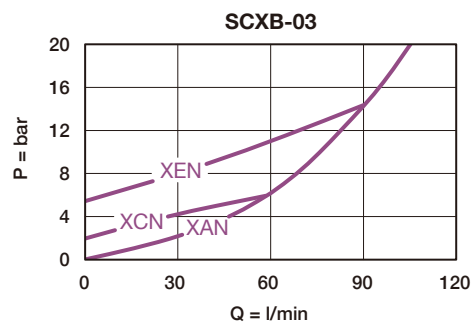
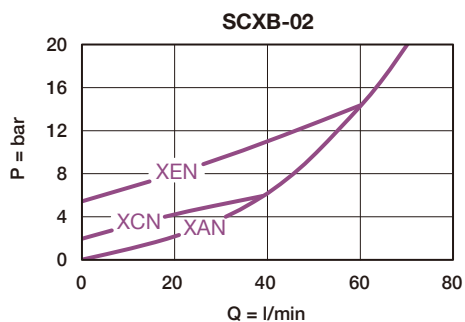
1	Model Name	SCX	
2	Operation	B	free flow por2 to port1, with POM seat
3	Valve Size	02, 03, 06, 08	
4	Cavity	ST13A, ST5A, ST16A, ST18A	
5	Cracking Pressure	A	0.3 bar
		B	1.0 bar
		C	2.0 bar
		D	3.5 bar
		E	5.0 bar
6	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
7	Control Manner	U	unadjustable

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SCXB-02	ST13A	60	350	45/50	-35 ~ 100°C (-31 ~ 212°F)	0.12
SCXB-03	ST5A	120	350	60/70		0.18
SCXB-06	ST16A	240	350	200/215		0.42
SCXB-08	ST18A	480	350	465/500		0.93

PERFORMANCE CURVES

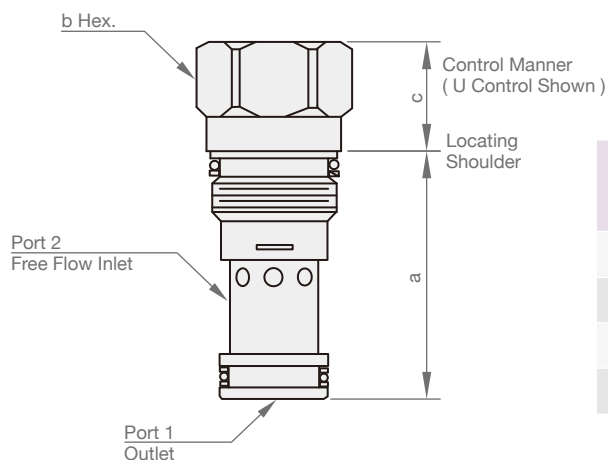
► Typical Pressure Drop



SCXD

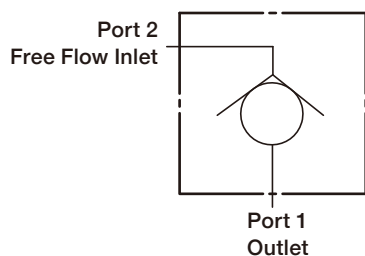
DIMENSION

(UNIT : mm)



Model	a	b	c
			U
SCXD-02	34.9	22.2	19
SCXD-03	41.1	28.6	18
SCXD-06	61.9	31.8	25
SCXD-08	79.4	41.3	31

SYMBOLS



ORDER CODES

SCX	D	- 02	- ST13A	- C	N	U
1	2	3	4	5	6	7

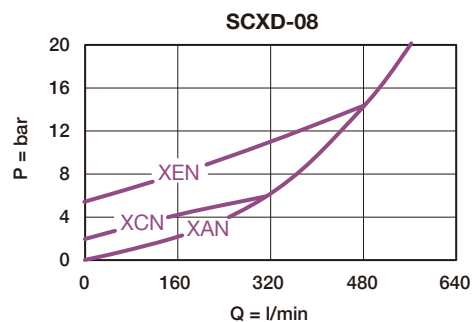
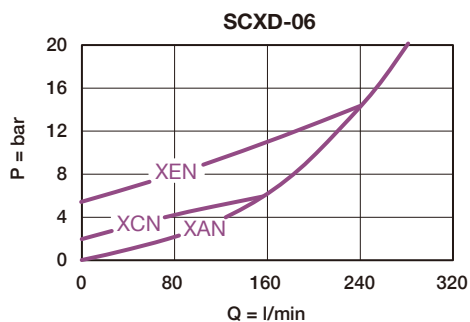
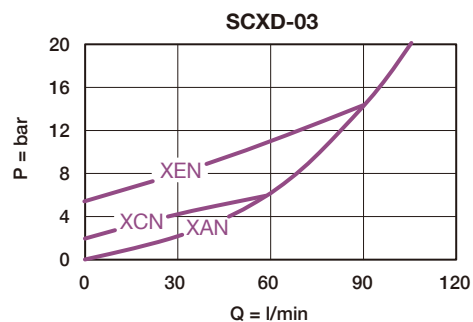
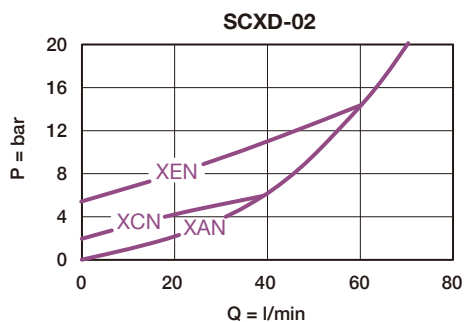
1	Model Name	SCX
2	Operation	D free flow por2 to port1
3	Valve Size	02, 03, 06, 08
4	Cavity	ST13A, ST5A, ST16A, ST18A
5	Cracking Pressure	A 0.3 bar
		B 1.0 bar
		C 2.0 bar
		D 3.5 bar
		E 5.0 bar
6	Material of Seal	N buna-N
		V viton
		E EPDM
		H HNBR
		U polyurethane
7	Control Manner	U unadjustable

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SCXD-02	ST13A	60	350	40/50	-35 ~ 100°C (-31 ~ 212°F)	0.12
SCXD-03	ST5A	120	350	60/70		0.18
SCXD-06	ST16A	240	350	200/215		0.42
SCXD-08	ST18A	480	350	465/500		0.93

PERFORMANCE CURVES

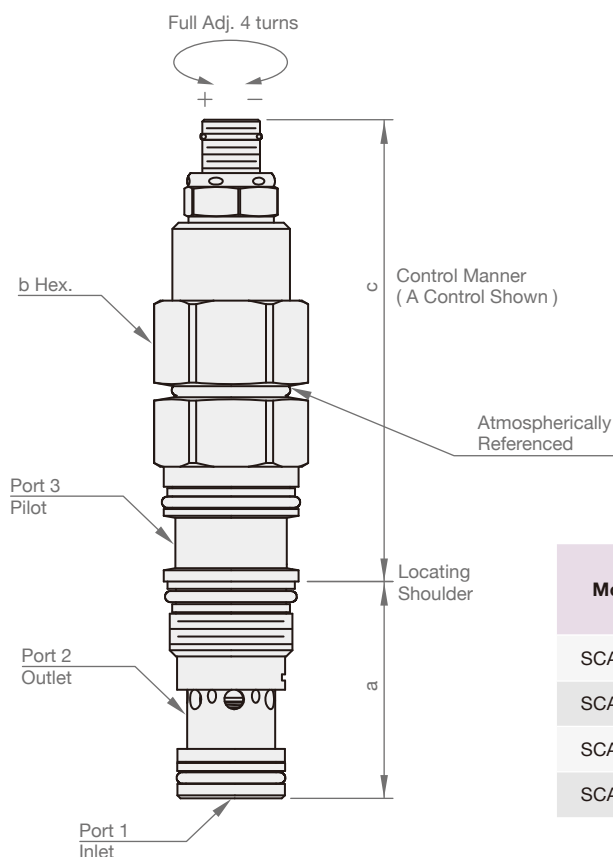
► Typical Pressure Drop



SCAA

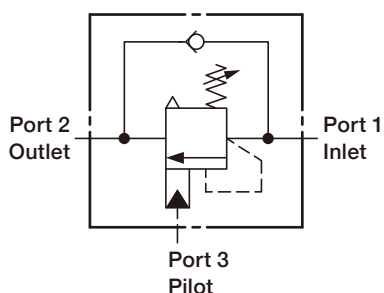
DIMENSION

(UNIT : mm)



Model	a	b	c
			A
SCAA-02	35.1	22.2	73.4
SCAA-03	35.1	28.6	83.6
SCAA-06	46.0	31.8	95.0
SCAA-08	63.5	41.3	116.3

SYMBOLS



ORDER CODES

SCA A - 02 - ST11A - I N A

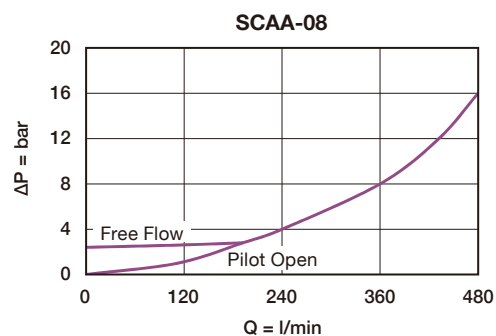
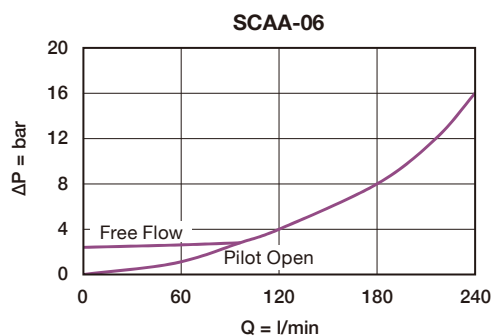
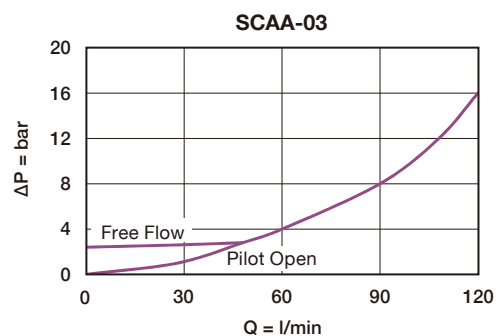
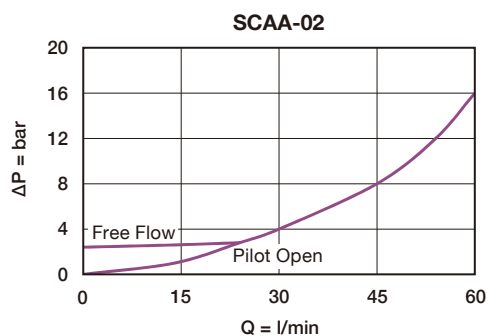
1	Model Name	SCA
2	Pilot Pressure	A 3:1
3	Valve Size	02, 03, 06, 08
4	Cavity	ST11A, ST2A, ST17A, ST19A
5	Adjustable Range	H 70 ~ 280 bar, 210 bar initially setting
		I 25 ~ 105 bar, 70 bar initially setting
6	Material of Seal	N buna-N
		V viton
		E EPDM
		H HNBR
		U polyurethane
7	Control Manner	A adjustable screw

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SCAA-02	ST11A	60	350	45/50	-35 ~ 100°C (-31 ~ 212°F)	0.20
SCAA-03	ST2A	120	350	60/70		0.38
SCAA-06	ST17A	240	350	200/215		0.74
SCAA-08	ST19A	480	350	465/500		1.62

PERFORMANCE CURVES

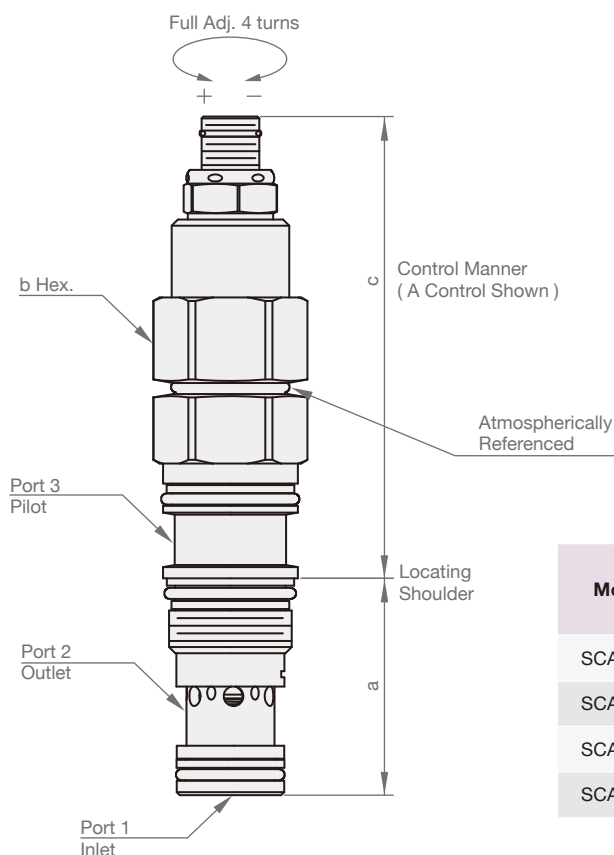
► Free Flow & Piloted Open Pressure Drop



SCAG

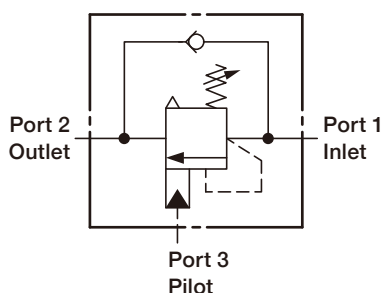
DIMENSION

(UNIT : mm)



Model	a	b	c
			A
SCAG-02	35.1	22.2	73.4
SCAG-03	35.1	28.6	83.6
SCAG-06	46.0	31.8	95.0
SCAG-08	63.5	41.3	116.3

SYMBOLS



ORDER CODES

SCA G - 02 - ST11A - G N A

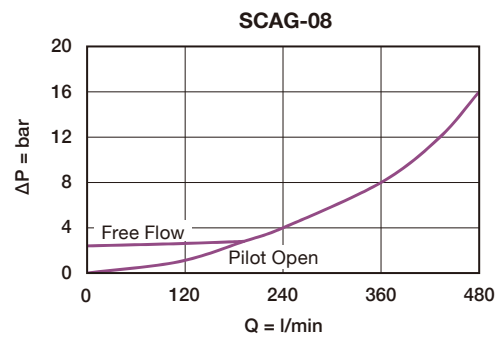
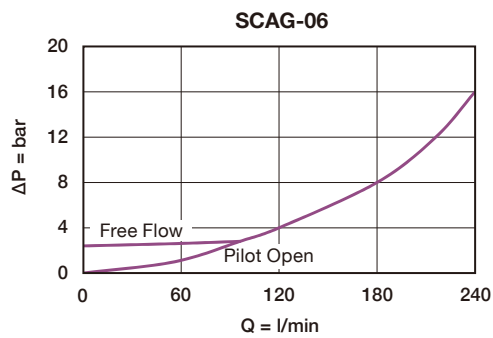
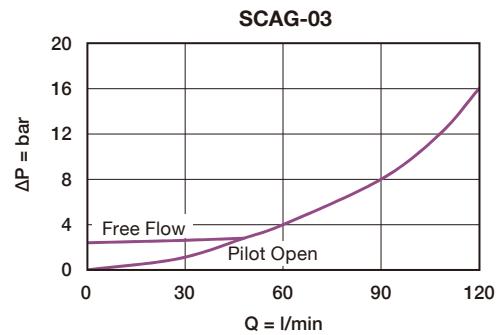
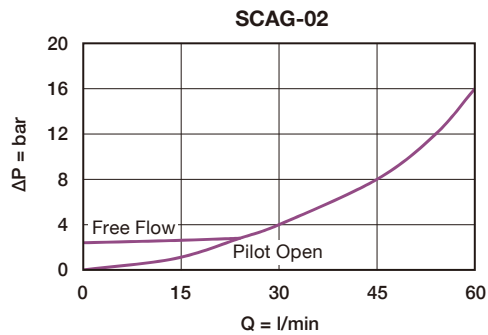
1	Model Name	SCA
2	Pilot Pressure	G 5:1
3	Valve Size	02, 03, 06, 08
4	Cavity	ST11A, ST2A, ST17A, ST19A
5	Adjustable Range	G 140 ~ 420 bar, 280 bar initially setting
		F 70 ~ 175 bar, 140 bar initially setting
6	Material of Seal	N buna-N
		V viton
		E EPDM
		H HNBR
		U polyurethane
7	Control Manner	A adjustable screw

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SCAG-02	ST11A	60	350	45/50	-35 ~ 100°C (-31 ~ 212°F)	0.20
SCAG-03	ST2A	120	350	60/70		0.38
SCAG-06	ST17A	240	350	200/215		0.74
SCAG-08	ST19A	480	350	465/500		1.62

PERFORMANCE CURVES

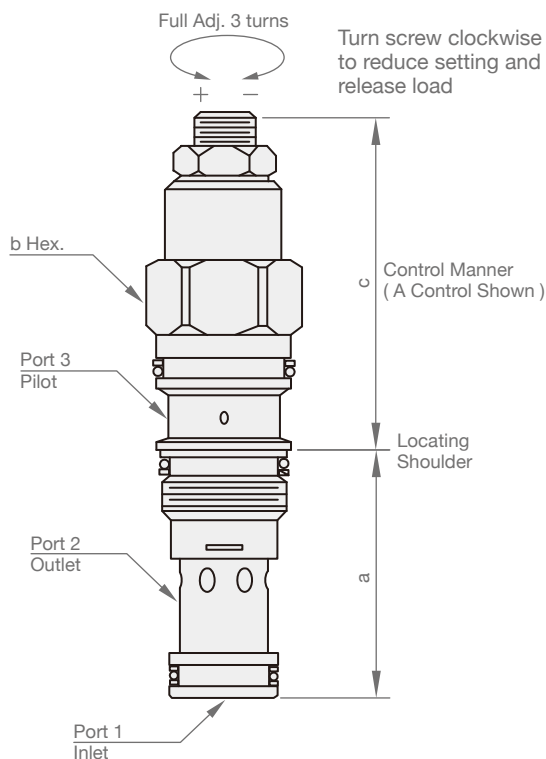
► Free Flow & Piloted Open Pressure Drop



SCBA

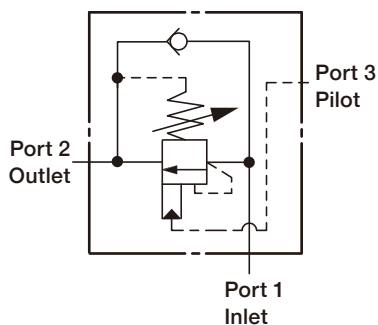
DIMENSION

(UNIT : mm)



Model	a	b	c
			A
SCBA-02	34.9	22.2	50
SCBA-03	34.9	28.6	61
SCBA-06	46.0	31.8	70
SCBA-08	63.5	41.3	90

SYMBOLS



ORDER CODES

SCB **A** - **02** - **ST11A** - **I** **N** **A**

1 2 3 4 6 7 5

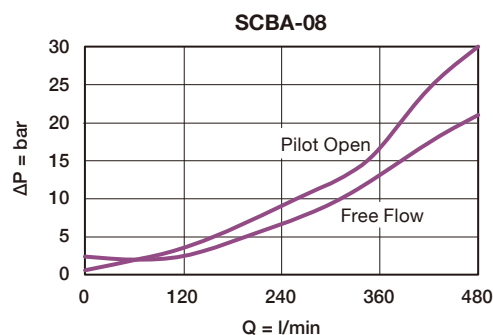
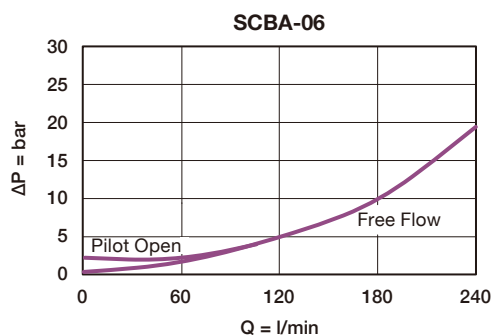
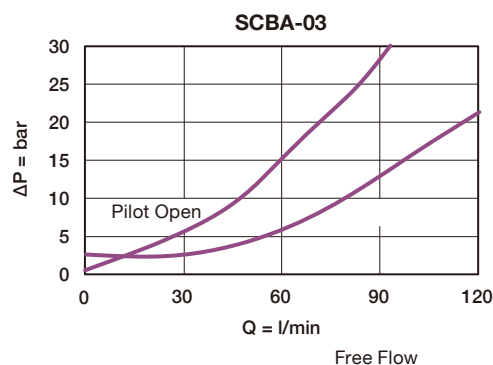
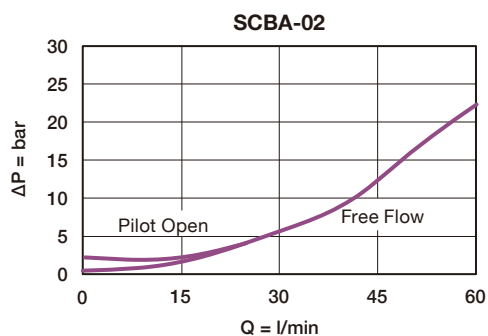
1	Model Name	SCB	
2	Pilot Ratio	A	3:1
3	Valve Size	02, 03, 06, 08	
4	Cavity	ST11A, ST2A, ST17A, ST19A	
5	Adjustable Range	H	70 ~ 280 bar, w/1.7 bar check, 210 bar initially setting
		I	25 ~ 105 bar, w/1.7 bar check, 70 bar initially setting
		A	70 ~ 280 bar, w/0.3 bar check, 210 bar initially setting
		B	25 ~ 105 bar, w/0.3 bar check, 70 bar initially setting
6	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
7	Control Manner	A	adjustable screw

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SCBA-02	ST11A	60	350	40/50	-35 ~ 100°C (-31 ~ 212°F)	0.17
SCBA-03	ST2A	120	350	60/70		0.30
SCBA-06	ST17A	240	350	200/215		0.64
SCBA-08	ST19A	480	350	465/500		1.47

PERFORMANCE CURVES

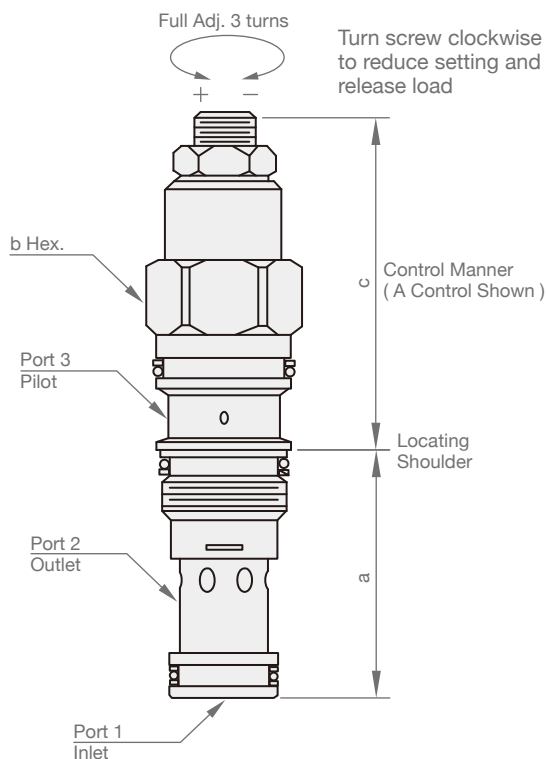
► Free Flow & Piloted Open Pressure Drop



SCBG

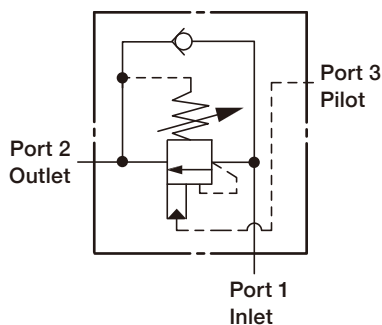
DIMENSION

(UNIT : mm)



Model	a	b	c
			A
SCBG-02	34.9	22.2	50
SCBG-03	34.9	28.6	61
SCBG-06	46.0	31.8	70
SCBG-08	63.5	41.3	90

SYMBOLS



ORDER CODES

SCB **G** - **02** - **ST11A** - **K** **N** **A**

1 2 3 4 5 6 7

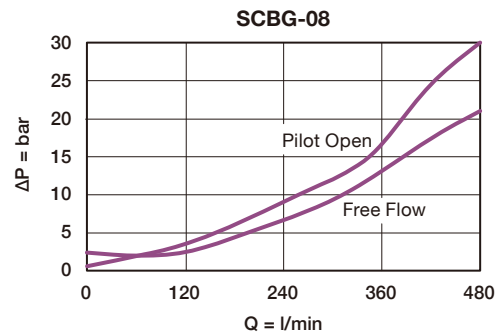
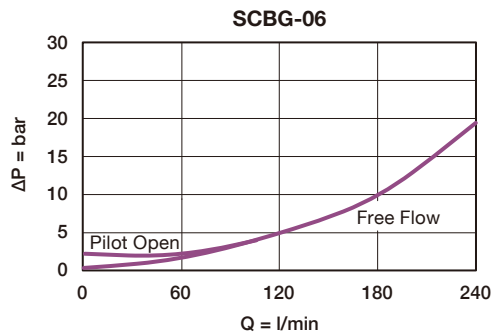
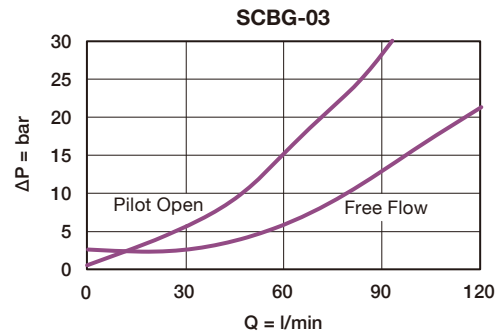
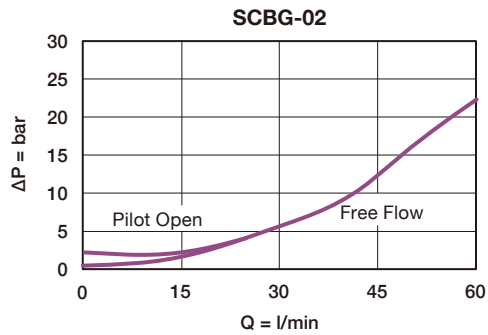
1	Model Name	SCB
2	Pilot Ratio	G 4.5:1
3	Valve Size	02, 03, 06, 08
4	Cavity	ST11A, ST2A, ST17A, ST19A
5	Adjustable Range	J 140 ~ 350 bar, w/1.7 bar check, 210 bar initially setting
		K 70 ~ 175 bar, w/1.7 bar check, 140 bar initially setting
		C 140 ~ 350 bar, w/0.3 bar check, 210 bar initially setting
		D 70 ~ 175 bar, w/0.3 bar check, 140 bar initially setting
6	Material of Seal	N buna-N
		V viton
		E EPDM
		H HNBR
		U polyurethane
7	Control Manner	A adjustable screw

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SCBG-02	ST11A	60	350	40/50	-35 ~ 100°C (-31 ~ 212°F)	0.17
SCBG-03	ST2A	120	350	60/70		0.30
SCBG-06	ST17A	240	350	200/215		0.64
SCBG-08	ST19A	480	350	465/500		1.47

PERFORMANCE CURVES

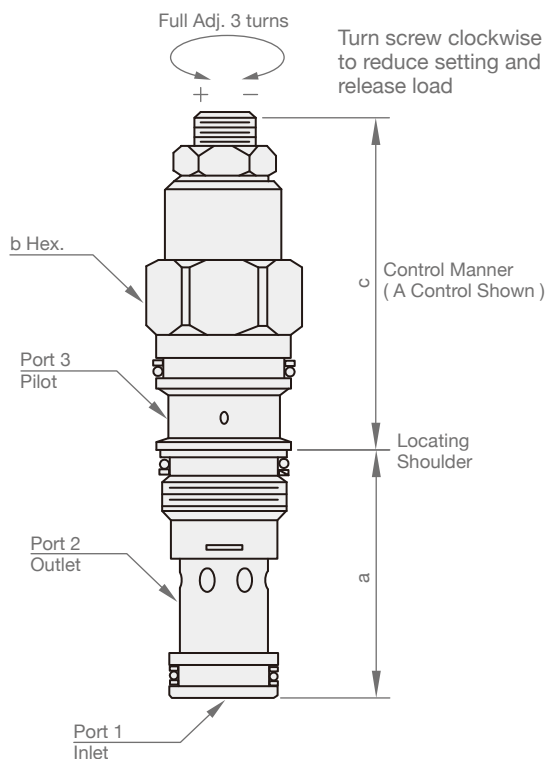
► Free Flow & Piloted Open Pressure Drop



SCBH

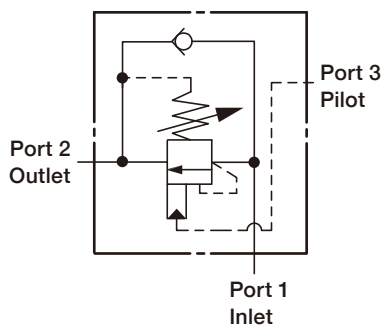
DIMENSION

(UNIT : mm)



Model	a	b	c
			A
SCBH-02	34.9	22.2	50
SCBH-03	34.9	28.6	61
SCBH-06	46.0	31.8	70
SCBH-08	63.5	41.3	90

SYMBOLS



ORDER CODES

SCB H - 02 - ST11A - K N A

1 2 3 4 5 6 7

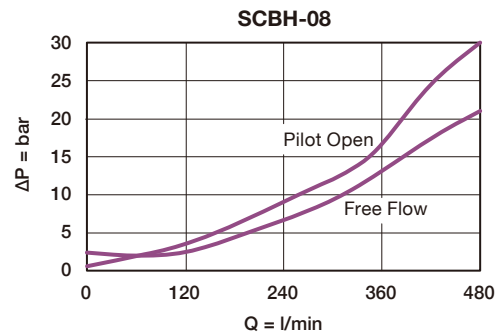
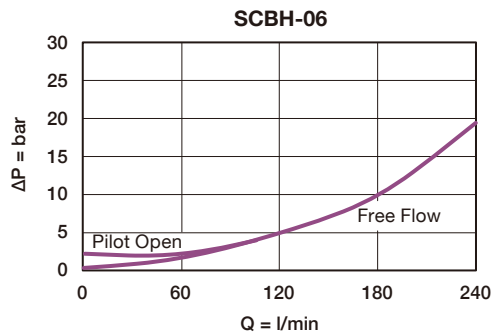
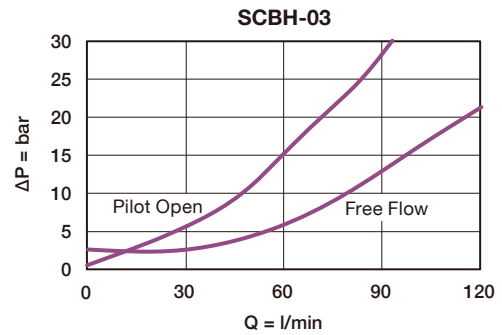
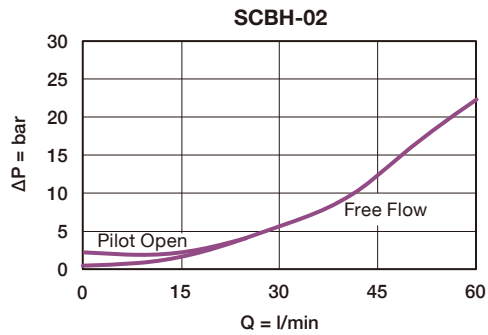
1	Model Name	SCB
2	Pilot Ratio	H 10:1
3	Valve Size	02, 03, 06, 08
4	Cavity	ST11A, ST2A, ST17A, ST19A
5	Adjustable Range	J 140 ~ 350 bar, w/1.7 bar check, 210 bar initially setting
		K 70 ~ 175 bar, w/1.7 bar check, 140 bar initially setting
		C 140 ~ 350 bar, w/0.3 bar check, 210 bar initially setting
		D 70 ~ 175 bar, w/0.3 bar check, 140 bar initially setting
6	Material of Seal	N buna-N
		V viton
		E EPDM
		H HNBR
		U polyurethane
7	Control Manner	A adjustable screw

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SCBH-02	ST11A	60	350	40/50	-35 ~ 100°C (-31 ~ 212°F)	0.17
SCBH-03	ST2A	120	350	60/70		0.30
SCBH-06	ST17A	240	350	200/215		0.64
SCBH-08	ST19A	480	350	465/500		1.47

PERFORMANCE CURVES

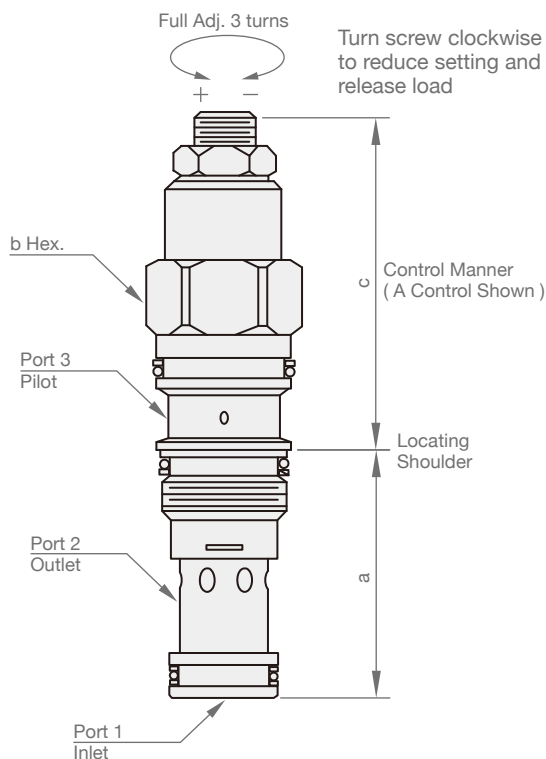
► Free Flow & Piloted Open Pressure Drop



SCBC

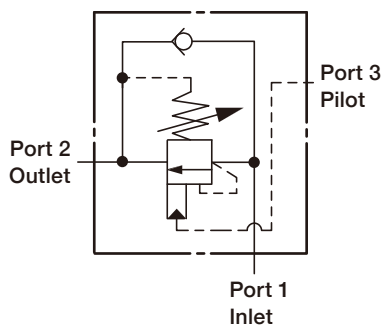
DIMENSION

(UNIT : mm)



Model	a	b	c
			A
SCBC-02	34.9	22.2	50
SCBC-03	34.9	28.6	61
SCBC-06	46.0	31.8	70

SYMBOLS



ORDER CODES

SCB **C** - **02** - **ST11A** - **I** **N** **A**

1 2 3 4 5 6 7

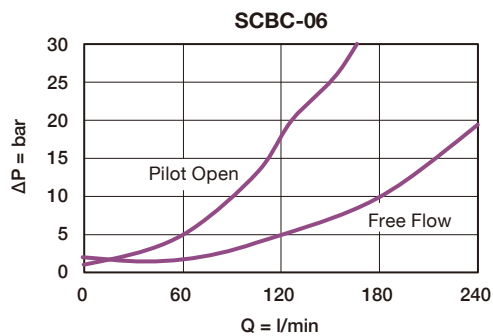
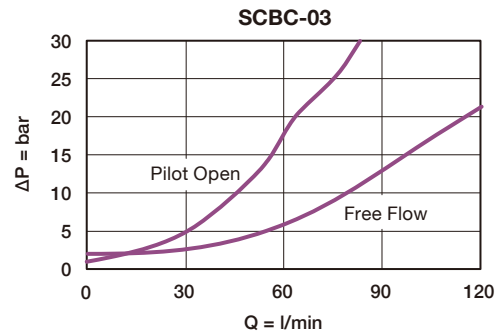
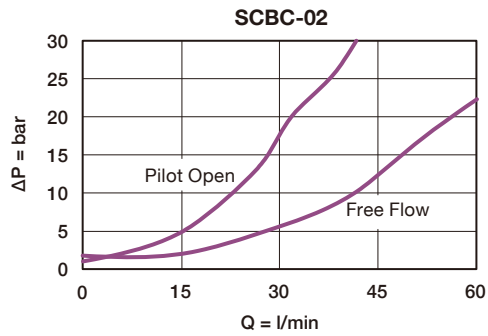
1	Model Name	SCB
2	Pilot Ratio	C 3:1
3	Valve Size	02, 03, 06
4	Cavity	ST11A, ST2A, ST17A
5	Adjustable Range	H 70 ~ 280 bar, w/1.7 bar check, 210 bar initially setting
		I 25 ~ 105 bar, w/1.7 bar check, 70 bar initially setting
		A 70 ~ 280 bar, w/0.3 bar check, 210 bar initially setting
		B 25 ~ 105 bar, w/0.3 bar check, 70 bar initially setting
6	Material of Seal	N buna-N
		V viton
		E EPDM
		H HNBR
		U polyurethane
7	Control Manner	A adjustable screw

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SCBC-02	ST11A	40	350	40/50	-35 ~ 100°C (-31 ~ 212°F)	0.17
SCBC-03	ST2A	80	350	60/70		0.30
SCBC-06	ST17A	160	350	200/215		0.64

PERFORMANCE CURVES

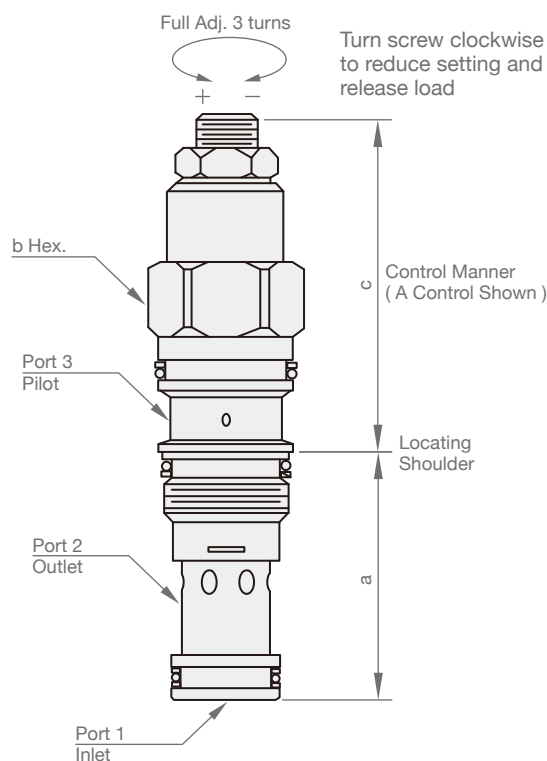
► Free Flow & Piloted Open Pressure Drop



SCBD

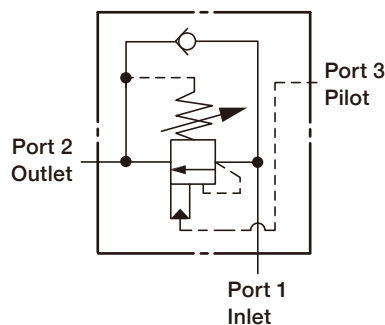
DIMENSION

(UNIT : mm)



Model	a	b	c
			A
SCBD-02	34.9	22.2	50
SCBD-03	34.9	28.6	61
SCBD-06	46.0	31.8	70

SYMBOLS



ORDER CODES

SCB **D** - **02** - **ST11A** - **J** **N** **A**

1 2 3 4 5 6 7

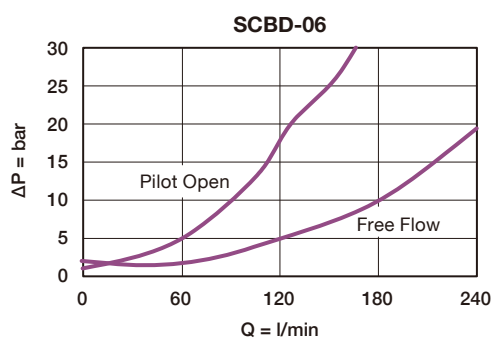
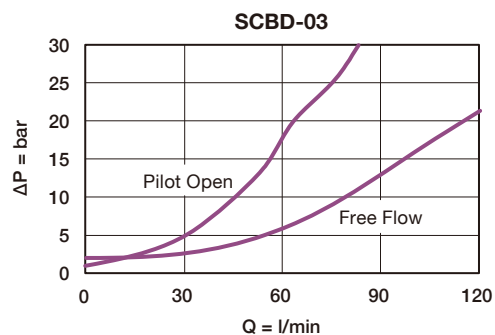
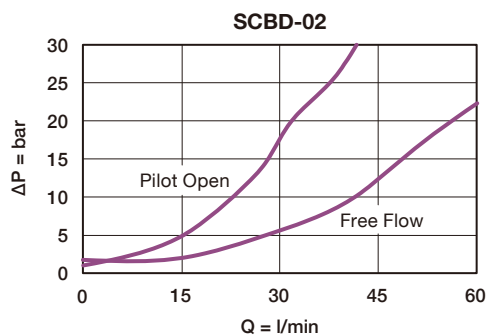
1	Model Name	SCB
2	Pilot Ratio	D 4.5:1
3	Valve Size	02, 03, 06
4	Cavity	ST11A, ST2A, ST17A
5	Adjustable Range	J 140 ~ 350 bar, w/1.7 bar check, 210 bar initially setting
		K 70 ~ 175 bar, w/1.7 bar check, 140 bar initially setting
		C 140 ~ 350 bar, w/0.3 bar check, 210 bar initially setting
		D 70 ~ 175 bar, w/0.3 bar check, 140 bar initially setting
6	Material of Seal	N buna-N
		V viton
		E EPDM
		H HNBR
		U polyurethane
7	Control Manner	A adjustable screw

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SCBD-02	ST11A	40	350	40/50	-35 ~ 100°C (-31 ~ 212°F)	0.17
SCBD-03	ST2A	80	350	60/70		0.30
SCBD-06	ST17A	160	350	200/215		0.64

PERFORMANCE CURVES

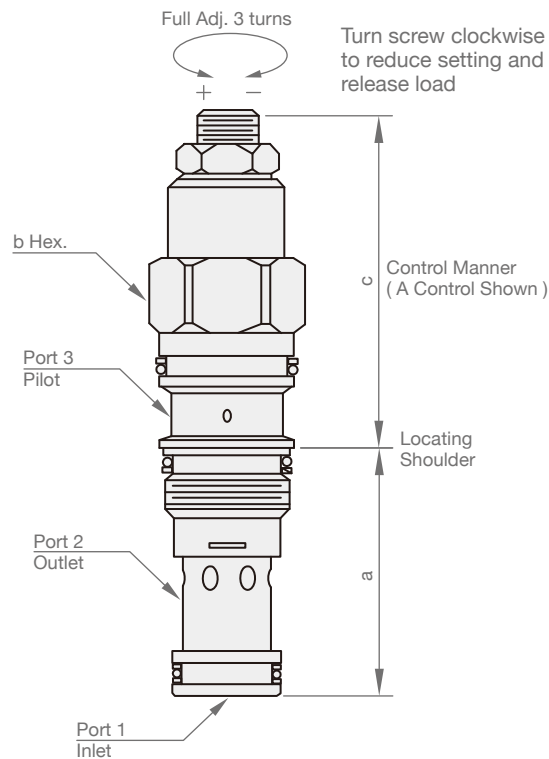
► Free Flow & Piloted Open Pressure Drop



SCBE

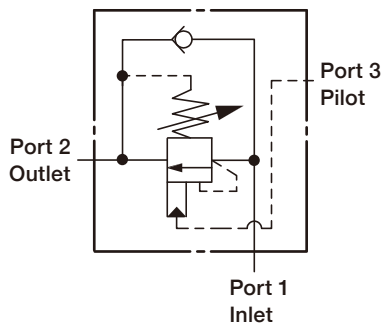
DIMENSION

(UNIT : mm)



Model	a	b	c
			A
SCBE-02	34.9	22.2	50
SCBE-03	34.9	28.6	61
SCBE-06	46.0	31.8	70
SCBE-08	63.5	41.3	90

SYMBOLS



ORDER CODES

SCB E - 02 - ST11A - I N A

1 2 3 4 5 6 7

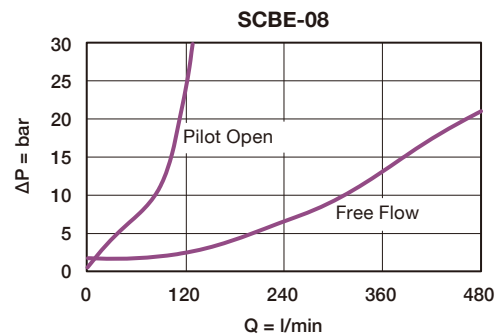
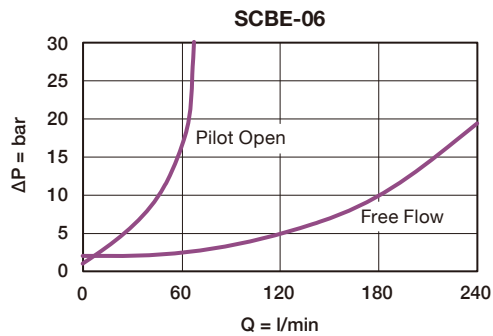
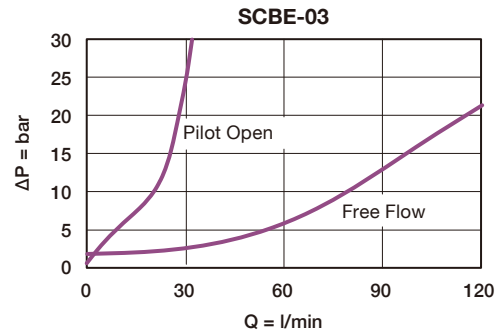
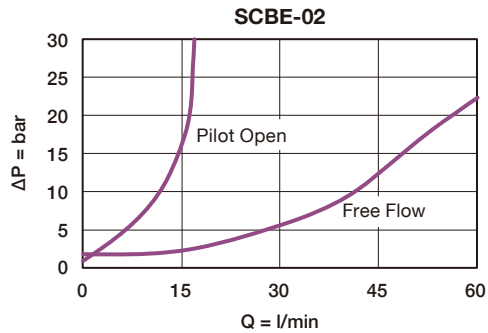
1	Model Name	SCB	
2	Pilot Ratio	E	3:1
3	Valve Size	02, 03, 06, 08	
4	Cavity	ST11A, ST2A, ST17A, ST19A	
5	Adjustable Range	H	70 ~ 280 bar, w/1.7 bar check, 210 bar initially setting
		I	25 ~ 105 bar, w/1.7 bar check, 70 bar initially setting
		A	70 ~ 280 bar, w/0.3 bar check, 210 bar initially setting
		B	25 ~ 105 bar, w/0.3 bar check, 70 bar initially setting
6	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
7	Control Manner	A	adjustable screw

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SCBE-02	ST11A	15	350	40/50	-35 ~ 100°C (-31 ~ 212°F)	0.17
SCBE-03	ST2A	30	350	60/70		0.30
SCBE-06	ST17A	60	350	200/215		0.64
SCBE-08	ST19A	80	350	465/500		1.47

PERFORMANCE CURVES

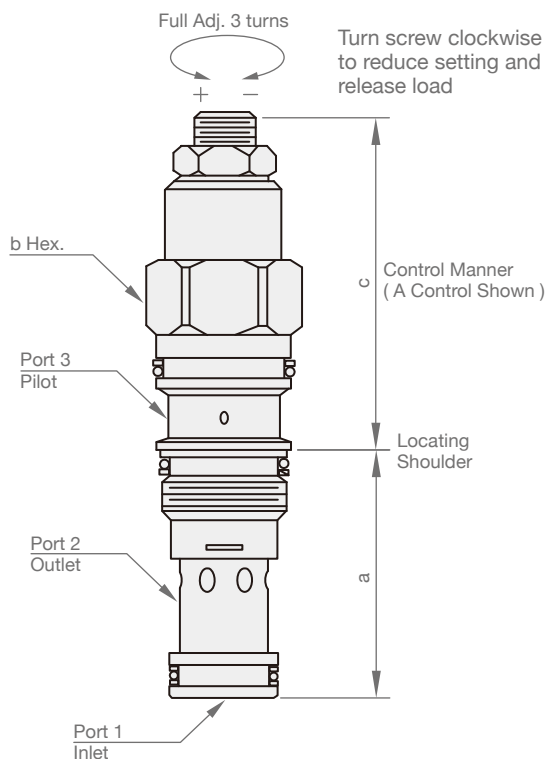
► Free Flow & Piloted Open Pressure Drop



SCBF

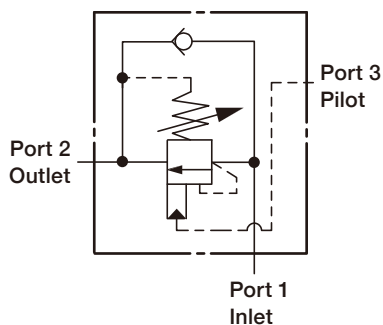
DIMENSION

(UNIT : mm)



Model	a	b	c
			A
SCBF-02	34.9	22.2	50
SCBF-03	34.9	28.6	61
SCBF-06	46.0	31.8	70
SCBF-08	63.5	41.3	90

SYMBOLS



ORDER CODES

SCB F - 02 - ST11A - K N A

1 2 3 4 5 6 7

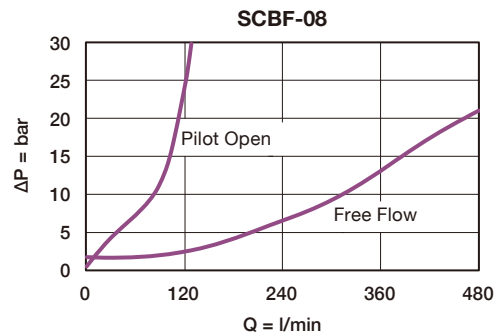
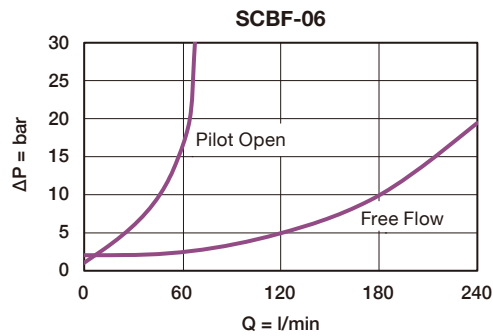
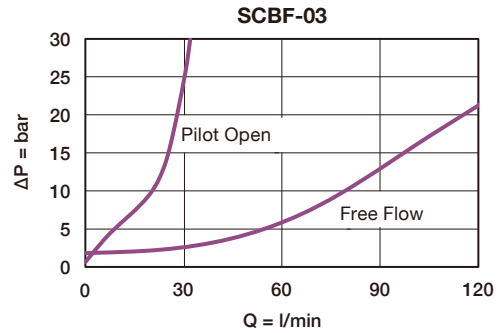
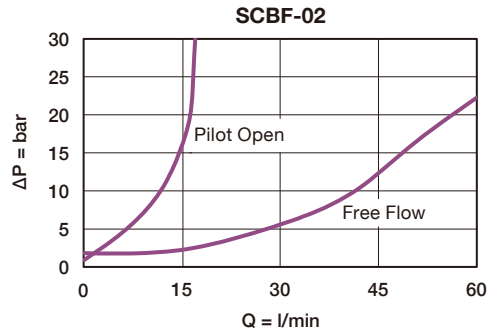
1	Model Name	SCB	
2	Pilot Ratio	F	4.5:1
3	Valve Size	02, 03, 06, 08	
4	Cavity	ST11A, ST2A, ST17A, ST19A	
5	Adjustable Range	J	140 ~ 350 bar, w/1.7 bar check, 210 bar initially setting
		K	70 ~ 175 bar, w/1.7 bar check, 140 bar initially setting
		C	140 ~ 350 bar, w/0.3 bar check, 210 bar initially setting
		D	70 ~ 175 bar, w/0.3 bar check, 140 bar initially setting
6	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
7	Control Manner	A	adjustable screw

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SCBF-02	ST11A	15	350	40/50	-35 ~ 100°C (-31 ~ 212°F)	0.17
SCBF-03	ST2A	30	350	60/70		0.30
SCBF-06	ST17A	60	350	200/215		0.64
SCBF-08	ST19A	80	350	465/500		1.47

PERFORMANCE CURVES

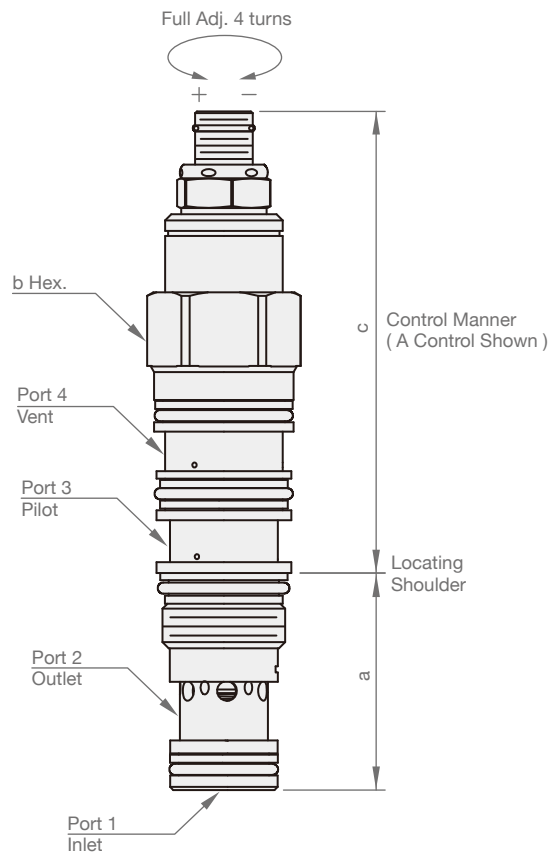
► Free Flow & Piloted Open Pressure Drop



SCWA

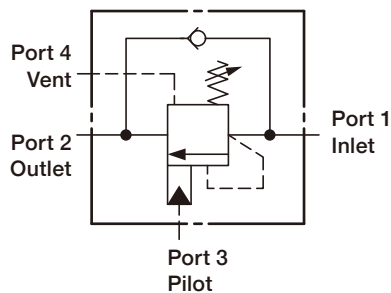
DIMENSION

(UNIT : mm)



Model	a	b	c
			A
SCWA-02	34.9	22.2	74.0
SCWA-03	34.9	28.6	84.0
SCWA-06	46.0	31.8	95.3
SCWA-08	63.5	41.3	117.0

SYMBOLS



ORDER CODES

SCW **A** - **02** - **ST21A** - **I** **N** **A**

1 2 3 4 5 6 7

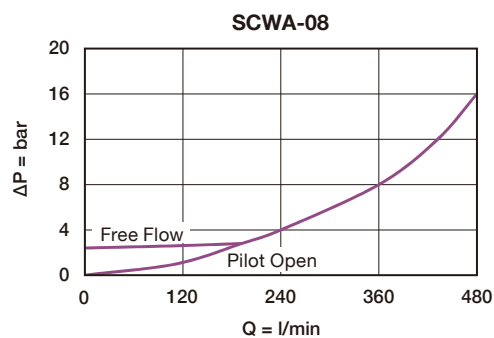
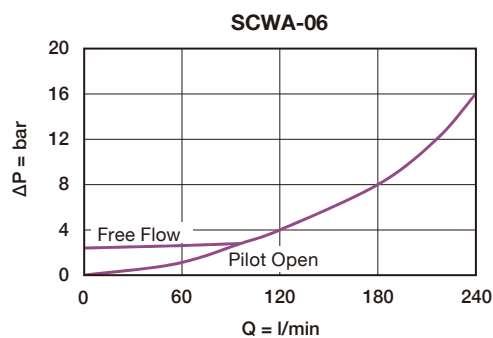
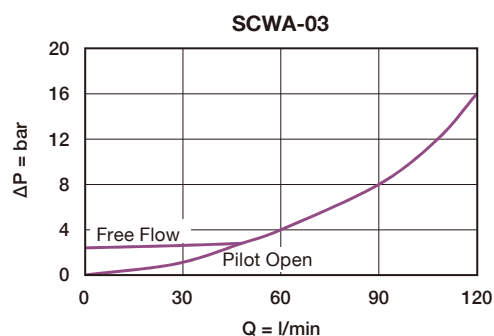
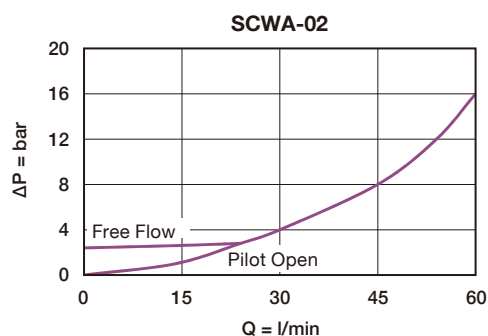
1	Model Name	SCW
2	Pilot Ratio	A 3:1
3	Valve Size	02, 03, 06, 08
4	Cavity	ST21A, ST22A, ST23A, ST24A
5	Adjustable Range	H 70 ~ 280 bar, 210 bar initially setting
		I 25 ~ 105 bar, 70 bar initially setting
6	Material of Seal	N buna-N
		V viton
		E EPDM
		H HNBR
		U polyurethane
7	Control Manner	A adjustable screw

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SCWA-02	ST21A	60	350	45/50	-35 ~ 100°C (-31 ~ 212°F)	0.19
SCWA-03	ST22A	120	350	60/70		0.36
SCWA-06	ST23A	240	350	200/215		0.72
SCWA-08	ST24A	480	350	465/500		1.60

PERFORMANCE CURVES

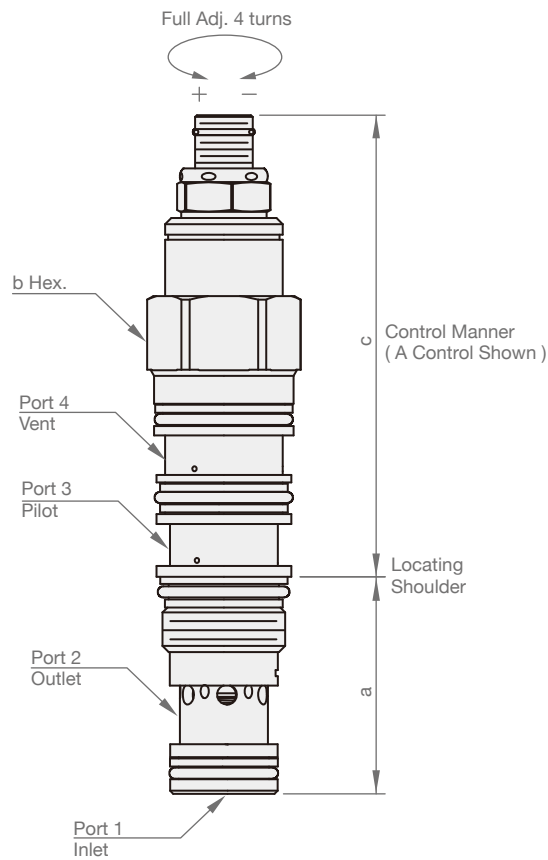
► Free Flow & Piloted Open Pressure Drop



SCWG

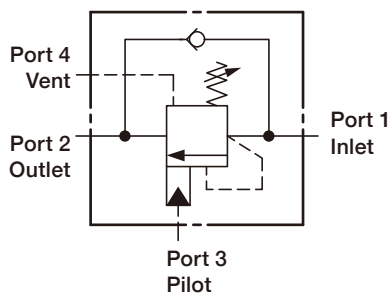
DIMENSION

(UNIT : mm)



Model	a	b	c
			A
SCWG-02	34.9	22.2	74.0
SCWG-03	34.9	28.6	84.0
SCWG-06	46.0	31.8	95.3
SCWG-08	63.5	41.3	117.0

SYMBOLS



ORDER CODES

SCW **G** - **02** - **ST21A** - **F** **N** **A**

1 2 3 4 5 6 7

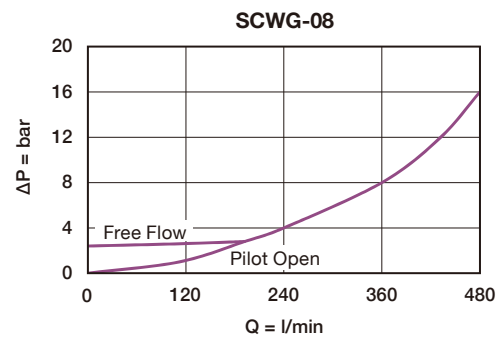
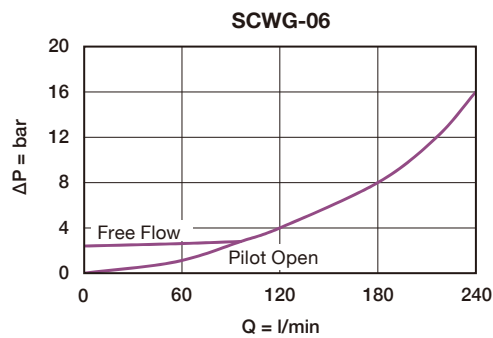
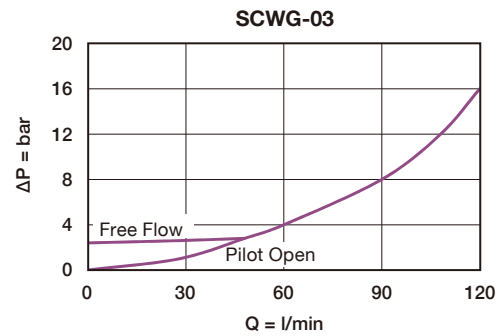
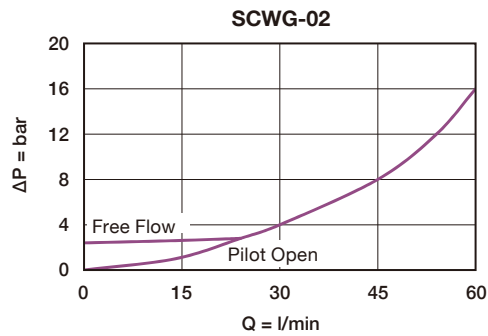
1	Model Name	SCW
2	Pilot Ratio	G 5:1
3	Valve Size	02, 03, 06, 08
4	Cavity	ST21A, ST22A, ST23A, ST24A
5	Adjustable Range	G 140 ~ 420 bar, 280 bar initially setting
		F 70 ~ 175 bar, 140 bar initially setting
6	Material of Seal	N buna-N
		V viton
		E EPDM
		H HNBR
		U polyurethane
7	Control Manner	A adjustable screw

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SCWG-02	ST21A	60	350	45/50	-35 ~ 100°C (-31 ~ 212°F)	0.19
SCWG-03	ST22A	120	350	60/70		0.36
SCWG-06	ST23A	240	350	200/215		0.72
SCWG-08	ST24A	480	350	465/500		1.60

PERFORMANCE CURVES

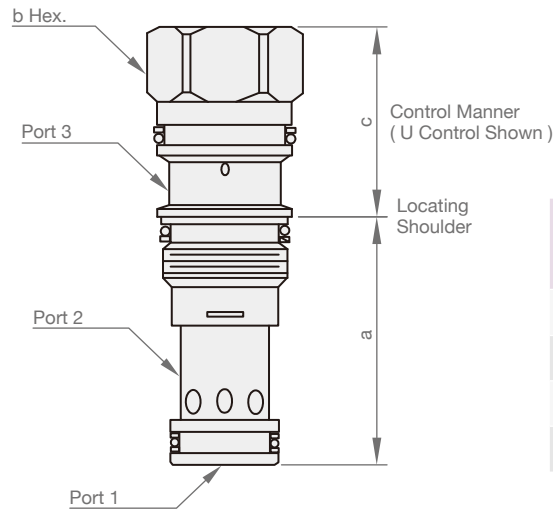
► Free Flow & Piloted Open Pressure Drop



SLO

DIMENSION

(UNIT : mm)



Model	a	b	c	
			U	A
SLO*-02	34.9	22.2	31	64
SLO*-03	34.9	28.6	35	72
SLO*-06	46.0	31.8	46	84
SLO*-08	63.5	41.3	59	100

SYMBOLS

SLOA	SLOB	SLOC	SLOD	SLOO
Vent-to-Open 	Vent-to-Open 	Pilot-to-Close 	Vent-to-Open 	Pilot-to-Close
Spring biased closed, pilot source from port 1	Spring biased closed, pilot source from port 2	Spring biased closed, pilot source from port 3	Spring biased closed, higher of port 1 or 2 pilot source	Spring biased open, pilot source from port 3

ORDER CODES

SLO **C** - **02** - **ST11A** - **D** **N** **U**

1 2 3 4 5 6 7

1 ▶	Model Name	SLO	6 ▶	Material of Seal	N	buna-N
2 ▶	Operation	A, B, C, D, O			V	viton
3 ▶	Valve Size	02, 03, 06, 08			E	EPDM
4 ▶	Cavity	ST11A, ST2A, ST17A, ST19A			H	HNBR
5 ▶	Cracking Pressure (bar)	D Type A, B, C, D, Port 1 : 3.5 Type O, Port 3 : 2			U	polyurethane
			7 ▶	Control Manner	U	unadjustable
					A	adjustable screw

MODEL SPEC.

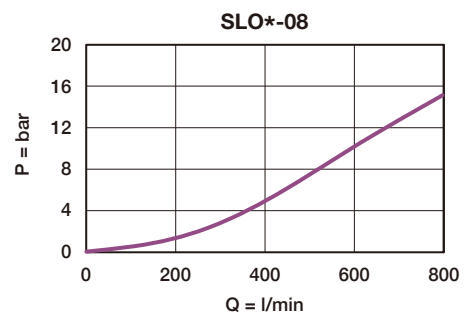
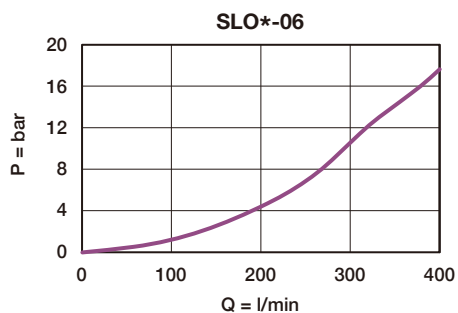
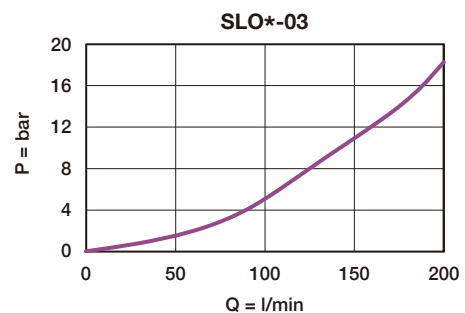
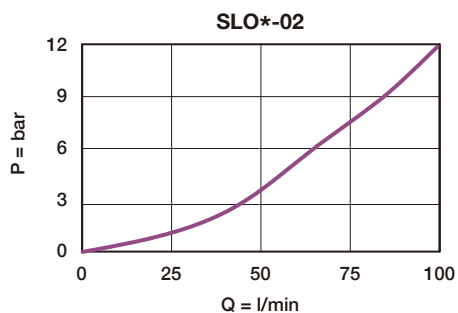
Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Control Orifice Diameter (mm)	Operating Temperature	Weight (kg)
SLO*-02	ST11A	80	350	40/50	Ø0.5	-35 ~ 100°C (-31 ~ 212°F)	0.12
SLO*-03	ST2A	160	350	60/70	Ø0.5		0.22
SLO*-06	ST17A	320	350	200/215	Ø0.8		0.50
SLO*-08	ST19A	640	350	465/500	Ø0.9		1.15

Area ratio, A3 to A1 : 1.8:1 (with sealed piston)

Area ratio, A3 to A2 : 2.25:1 (with sealed piston)

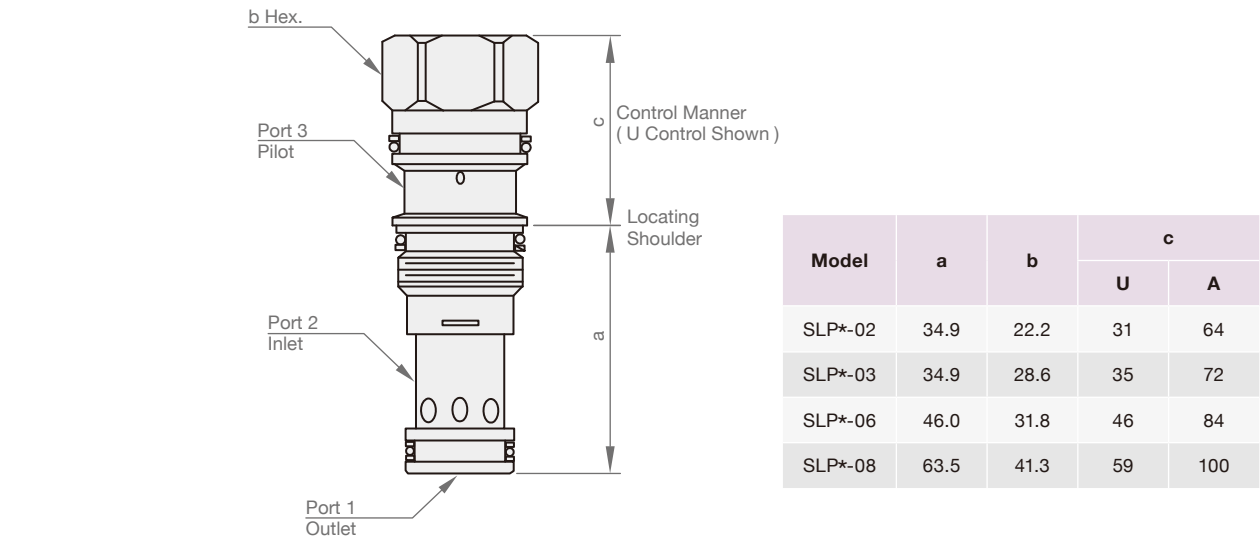
PERFORMANCE CURVES

▶ Typical Pressure Drop

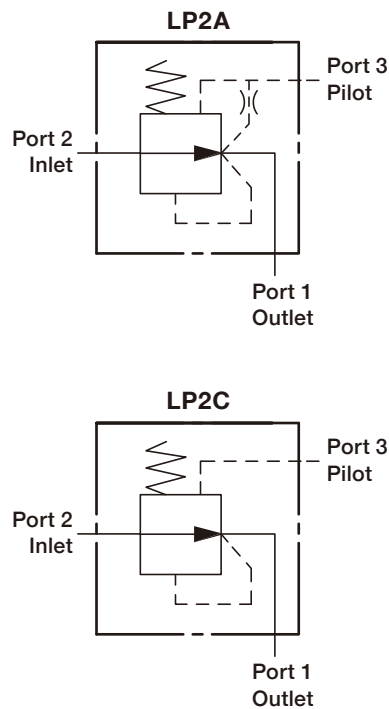


SLP

DIMENSION
 (UNIT : mm)



SYMBOLS



ORDER CODES

SLP C - 02 - ST11A - D N U

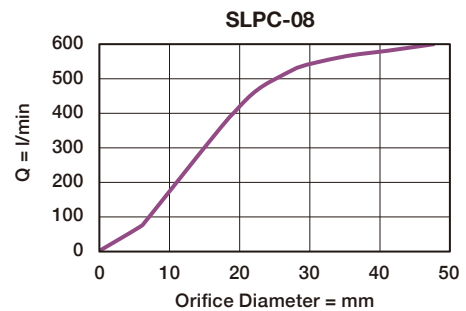
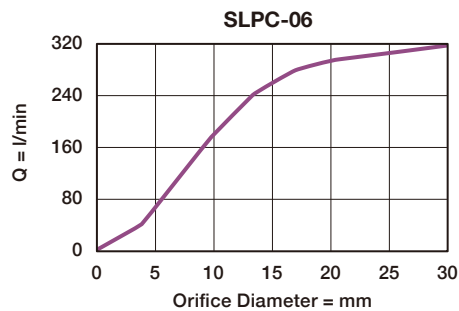
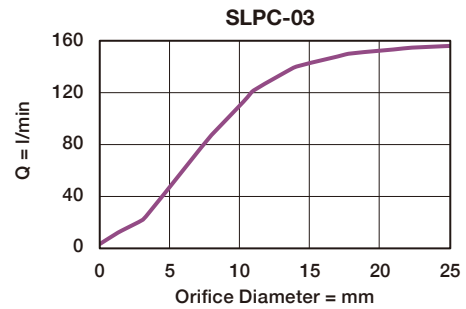
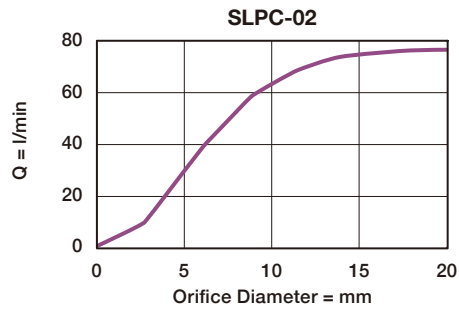
1	Model Name	SLP	
2	Type	A	internal pilot
		C	external pilot
3	Valve Size	02, 03, 06, 08	
4	Cavity	ST11A, ST2A, ST17A, ST19A	
5	Cracking Pressure	D	3.5 bar
		F	7.0 bar
		G	10.0 bar
		H	14.0 bar
6	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
7	Control Manner	U	unadjustable
		A	adjustable screw

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SLP*-02	ST11A	60	350	45/50	-35 ~ 100°C (-31 ~ 212°F)	0.15
SLP*-03	ST2A	120	350	60/70		0.25
SLP*-06	ST17A	240	350	200/215		0.55
SLP*-08	ST19A	480	350	465/500		1.17

PERFORMANCE CURVES

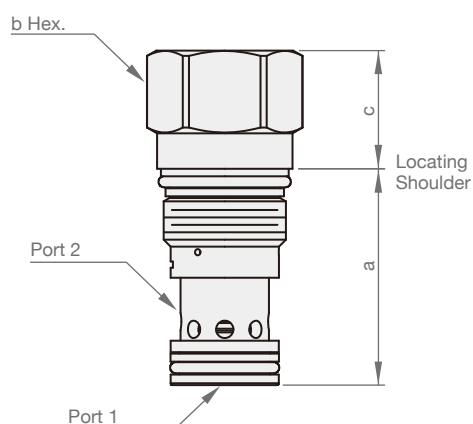
► Capacity as a Restrictive Compensator



SFQ

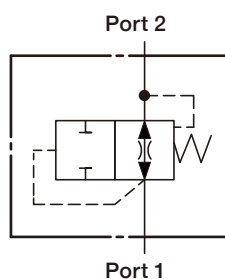
DIMENSION

(UNIT : mm)



Model	a	b	c
			U
SFQA-02	35.1	22.2	19.1
SFQA-03	41.1	28.6	17.5
SFQA-06	62.0	31.8	24.6
SFQA-08	79.5	41.3	30.2

SYMBOLS



ORDER CODES

SFQA - **02** - **ST13A** - **A** **N** **U**

1 2 3 4 5 6

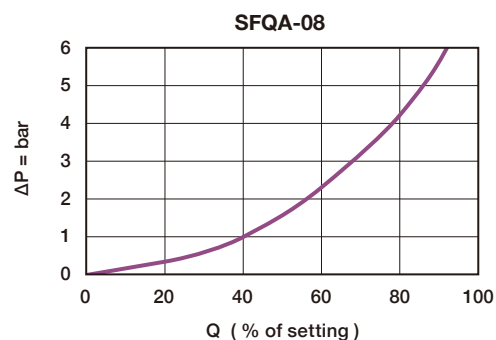
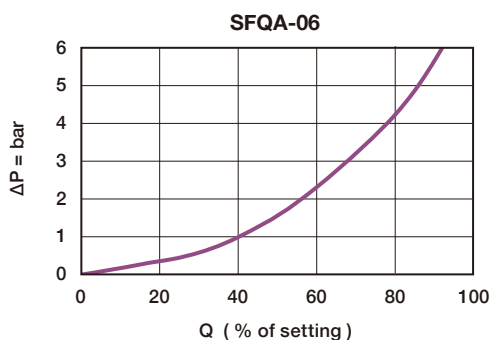
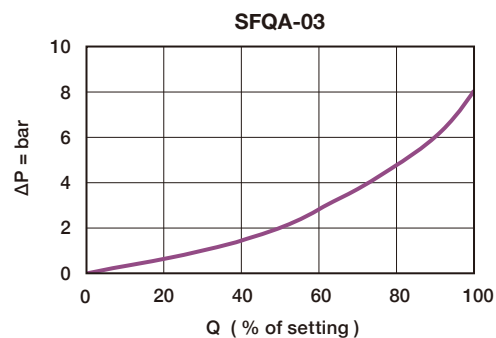
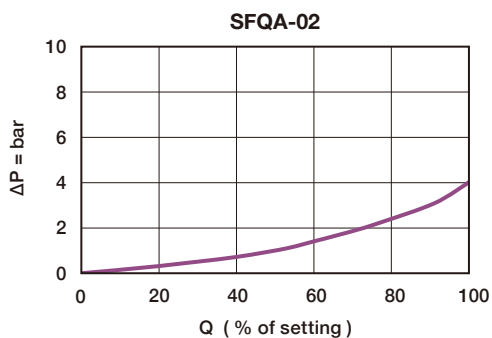
1	Model Name	SFQA	
2	Valve Size	02, 03, 06, 08	
3	Cavity	ST13A, ST5A, ST16A, ST18A	
4	Orifice Type	A	replaceable
		B	permanent
5	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
6	Control Manner	U	unadjustable

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SFQA-02	ST13A	23	350	45/50	-35 ~ 100°C (-31 ~ 212°F)	0.10
SFQA-03	ST5A	60	350	60/70		0.19
SFQA-06	ST16A	95	350	200/215		0.46
SFQA-08	ST18A	200	350	465/500		0.92

PERFORMANCE CURVES

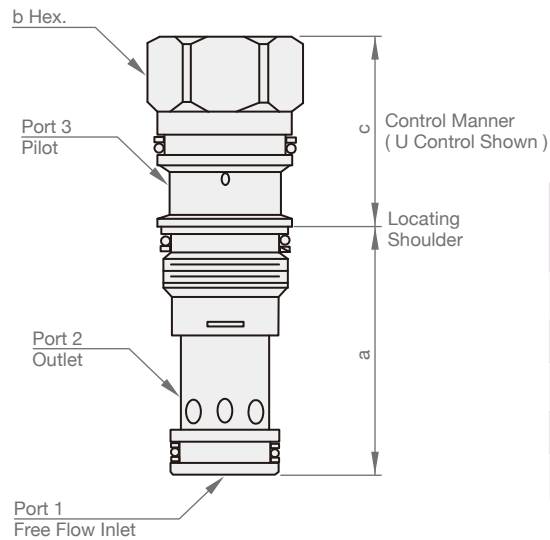
► Typical Pressure Drop



SCOA

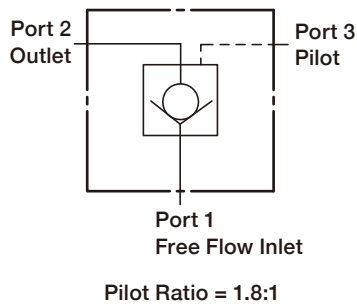
DIMENSION

(UNIT : mm)



Model	a	b	c
			U
SCOA-01	31.0	19.1	32
SCOA-02	34.9	22.2	31
SCOA-03	34.9	28.6	35
SCOA-06	46.0	31.8	46
SCOA-08	63.5	41.3	59

SYMBOLS



ORDER CODES

SCO **A** - **02** - **ST11A** - **C** **N** **U**

1 2 3 4 5 6 7

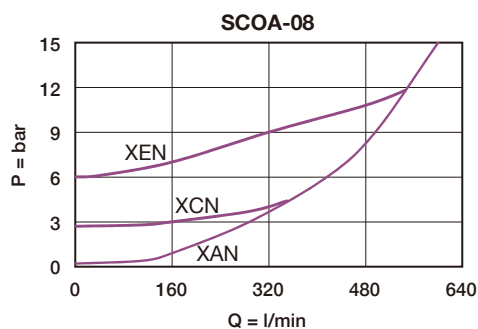
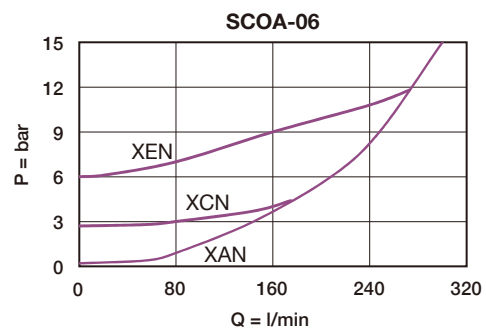
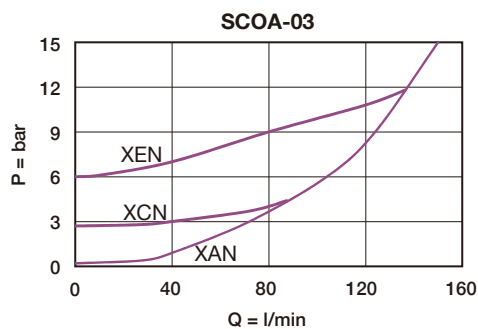
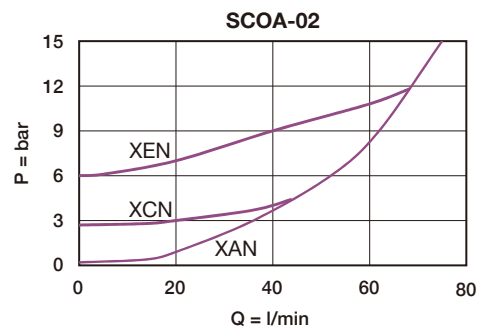
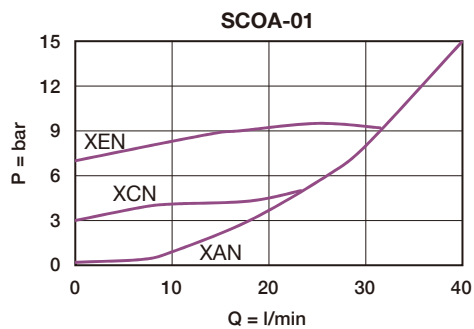
1	Model Name	SCO	
2	Pilot Ratio	A	1.8:1
3	Valve Size	01, 02, 03, 06, 08	
4	Cavity	ST163A, ST11A, ST2A, ST17A, ST19A	
5	Cracking Pressure	A	0.3 bar
		C	2.0 bar
		E	5.0 bar
6	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
7	Control Manner	U	standard pilot

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SCOA-01	ST163A	40	350	30/40	-35 ~ 100°C (-31 ~ 212°F)	0.10
SCOA-02	ST11A	80	350	40/50		0.13
SCOA-03	ST2A	160	350	60/70		0.24
SCOA-06	ST17A	320	350	200/215		0.53
SCOA-08	ST19A	640	350	465/500		1.19

PERFORMANCE CURVES

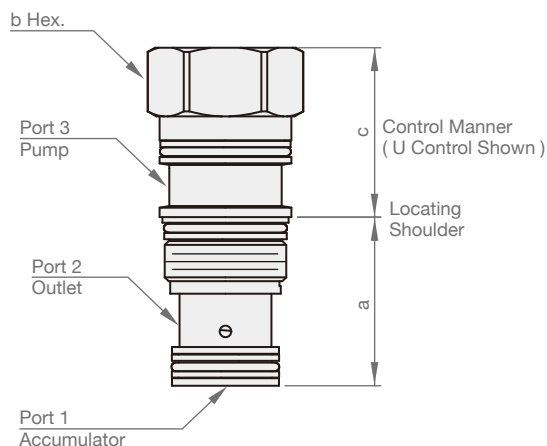
► Typical Pressure Drop



SCOO

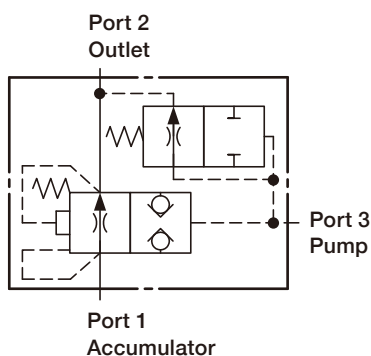
DIMENSION

(UNIT : mm)



Model	a	b	c
			U
SCOO-03	35.1	28.6	35.1

SYMBOLS



Pilot Ratio = 120:1

ORDER CODES

SCO	O	- 03	- ST2A	- D	N	U
1	2	3	4	5	6	7

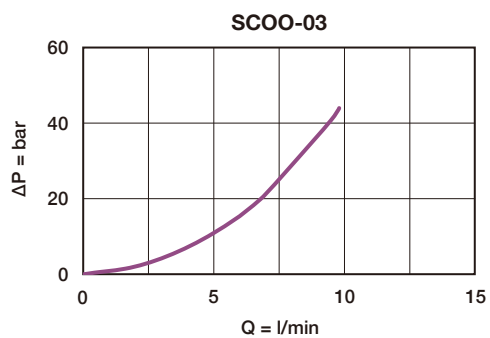
1	Model Name	SCO
2	Pilot Ratio	O 120:1
3	Valve Size	03
4	Cavity	ST2A
5	Min. Pilot Pressure	D 4 bar
6	Material of Seal	N buna-N
		V viton
		E EPDM
		H HNBR
		U polyurethane
7	Control Manner	U standard pilot

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SCOO-03	ST2A	4	350	60/70	-35 ~ 100°C (-31 ~ 212°F)	0.22

PERFORMANCE CURVES

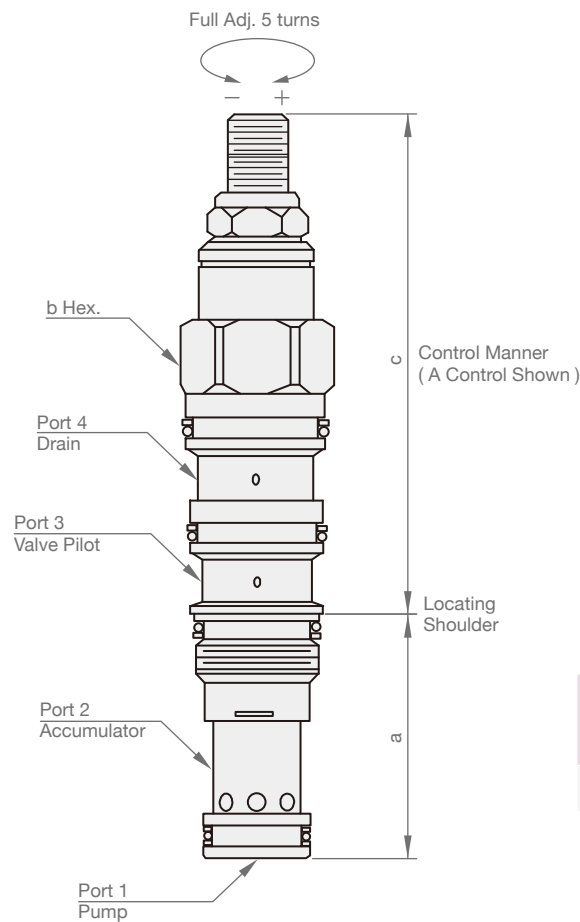
► Pressure Differential v.s. Flow



SQC

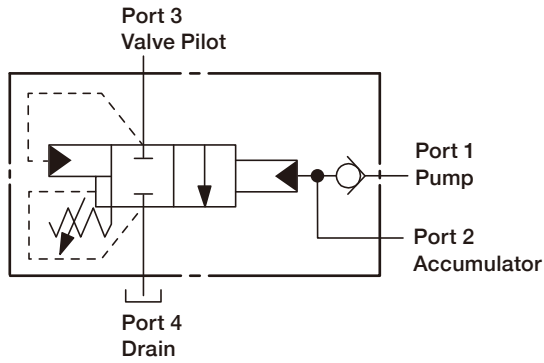
DIMENSION

(UNIT : mm)



Model	a	b	c	
			A	B
SQC*-02	34.9	22.2	78.5	84.8

SYMBOLS



ORDER CODES

SQC **C** - **02** - **ST21A** - **A** **N** **A**

1 2 3 4 5 6 7

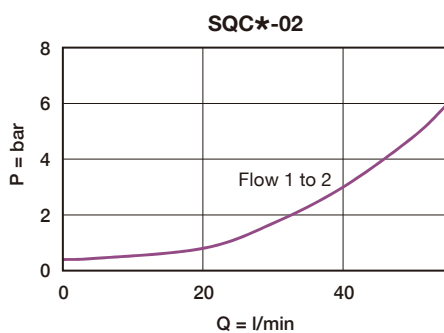
1	Model Name	SQC	
2	Pressure Differential Ratio btw. Unload & Reset	A	10%
		B	15%
		C	30%
3	Capacity (l/min)	02	60
4	Cavity	ST21A	
5	Adjustable Range	A	7 ~ 210 bar
		B	3.5 ~ 105 bar
		C	140 ~ 350 bar
		D	18 ~ 55 bar
6	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
7	Control Manner	A	adjustable screw
		B	control knob

MODEL SPEC.

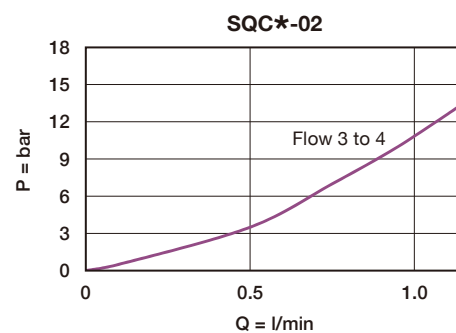
Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
SQC*-02	ST21A	60	350	60/70	-35 ~ 100°C (-31 ~ 212°F)	0.22

PERFORMANCE CURVES

► Pressure Differential vs. Flow



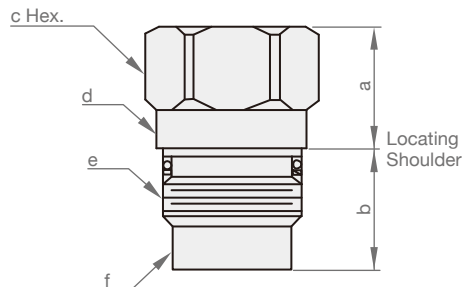
► Pressure Differential vs. Flow (Full Piloted Open)



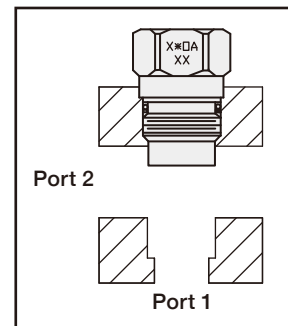
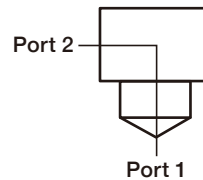
OA2

DIMENSION

(UNIT : mm)



SYMBOLS



Model	a	b	c	d	e	f
X2OA2	20.3	16.3	22.2	Ø21.7	M16 P1.5-6H	Ø17.4
X3OA2	17.8	22.2	28.6	Ø27.3	1"-14UNS-2B	Ø22.6
X6OA2	26	25	31.7	Ø39.7	M36 P2.0-6H	Ø33
X8OA2	30.4	26.8	41.2	Ø52.5	M48 P2.0-6H	Ø43

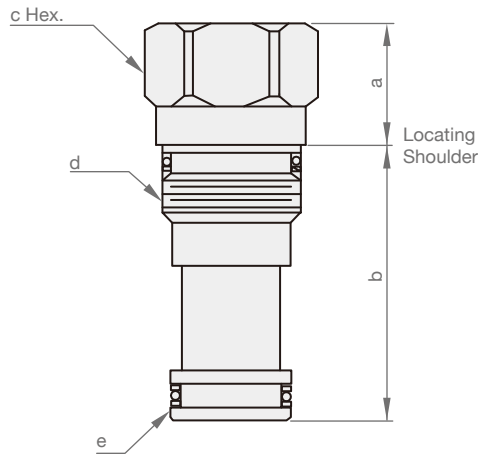
MODEL SPEC.

Model	Cavity	Thread	Material of Seal	Weight (kg)
X1OA2-ST162A-XX	ST162A	M16 P1.5	buna-N	0.05
X2OA2-ST10A-XX	ST10A	M20 P1.5		0.09
X2OA2-ST13A-XX	ST13A	M20 P1.5		0.09
X3OA2-ST3A-XX	ST3A	1"-14UNS-2B		0.13
X3OA2-ST5A-XX	ST5A	1"-14UNS-2B		0.13
X6OA2-ST16A-XX	ST16A	M36 P2		0.28
X8OA2-ST18A-XX	ST18A	M48 P2		0.57

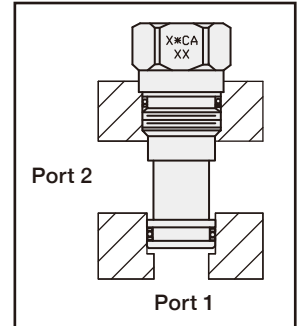
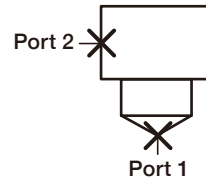
CA2

DIMENSION

(UNIT : mm)



SYMBOLS



Model	a	b	c	d	e
X2CA2	20.2	38.2	22.2	M16 P1.5-6H	Ø17.4
X3CA2	17.8	47.7	28.6	1"-14UNS-2B	Ø22.2
X6CA2	25.7	60.8	31.7	M32 P2.0-6H	Ø31.7
X8CA2	30	79.6	41.2	M48 P2.0-6H	Ø41.2

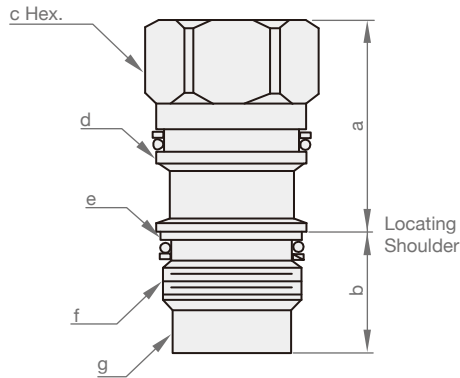
MODEL SPEC.

Model	Cavity	Thread	Material of Seal	Weight (kg)
X1CA2-ST162A-XX	ST162A	M16 P1.5	buna-N	0.07
X2CA2-ST10A-XX	ST10A	M20 P1.5		0.12
X2CA2-ST13A-XX	ST13A	M20 P1.5		0.12
X3CA2-ST3A-XX	ST3A	1"-14UNS-2B		0.21
X3CA2-ST5A-XX	ST5A	1"-14UNS-2B		0.20
X6CA2-ST16A-XX	ST16A	M36 P2		0.49
X8CA2-ST18A-XX	ST18A	M48 P2		1.10

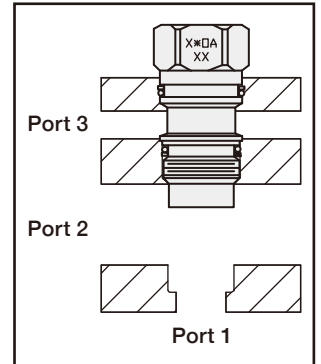
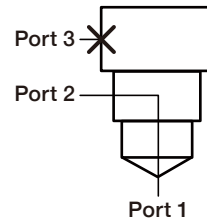
OA3

DIMENSION

(UNIT : mm)



SYMBOLS



Model	a	b	c	d	e	f	g
X1OA3	31.86	14.54	19.1	Ø17.8	Ø16.6	M16 P1.5-6H	Ø13.9
X2OA3	30	17.8	22.2	Ø21.7	Ø20.5	M16 P1.5-6H	Ø17.4
X3OA3	35.2	15.2	28.6	Ø27.3	Ø26	1"-14UNS-2B	Ø22.8
X6OA3	46.2	18.3	31.6	Ø39.6	Ø36.4	M36 P2.0-6H	Ø32.5
X8OA3	59	23.5	41	Ø52.4	Ø48.2	M36 P2.0-6H	Ø43

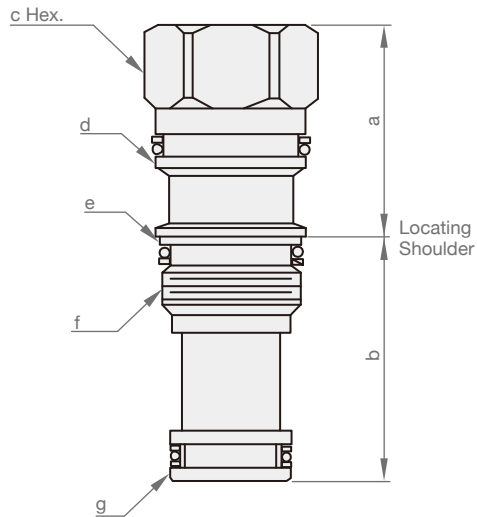
MODEL SPEC.

Model	Cavity	Thread	Material of Seal	Weight (kg)
X1OA3-ST163A-XX	ST163A	M16 P1.5	buna-N	0.06
X2OA3-ST11A-XX	ST11A	M20 P1.5		0.09
X3OA3-ST2A-XX	ST2A	1"-14UNS-2B		0.16
X6OA3-ST17A-XX	ST17A	M36 P2		0.31
X8OA3-ST19A-XX	ST19A	M48 P2		0.68

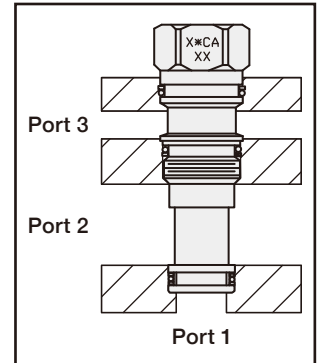
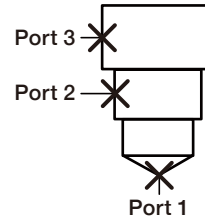
CA3

DIMENSION

(UNIT : mm)



SYMBOLS



Model	a	b	c	d	e	f	g
X1CA3	32	31	19.1	Ø17.8	Ø16.6	M16 P1.5-6H	Ø13.9
X2CA3	30.5	34.8	22.2	Ø21.8	Ø20.5	M16 P1.5-6H	Ø17.3
X3CA3	35	35	28.6	Ø27.3	Ø26	1"-14UNS-2B	Ø22.1
X6CA3	46.4	46	31.6	Ø39.6	Ø36.4	M36 P2.0-6H	Ø31.6
X8CA3	46.4	46	31.6	Ø39.6	Ø36.4	M36 P2.0-6H	Ø31.6

MODEL SPEC.

Model	Cavity	Thread	Material of Seal	Weight (kg)
X1CA3-ST163A-XX	ST163A	M16 P1.5	buna-N	0.08
X2CA3-ST11A-XX	ST11A	M20 P1.5		0.12
X3CA3-ST2A-XX	ST2A	1"-14UNS-2B		0.22
X6CA3-ST17A-XX	ST17A	M36 P2		0.52
X8CA3-ST19A-XX	ST19A	M48 P2		1.20

SY-DPCA-C-1



FEATURES

1. Precise Control
Digital microprocessor
2. Simple Setup
Digital display and buttons
3. Full Function
Adjustable input signal and output current
4. Safety
Short, open circuit protection with error code

ORDER CODES

SY - **DPCA** - **C** - **1**

1 2 3 4

1	Model Name	SY	
2	Control Mode	DPCA	digital proportional controller
3	Type	C	case with DIN-35 rail clamps
4	Output	1	single coil

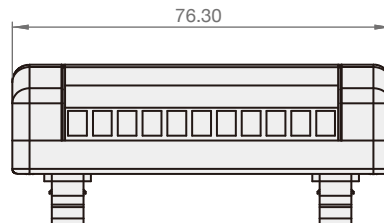
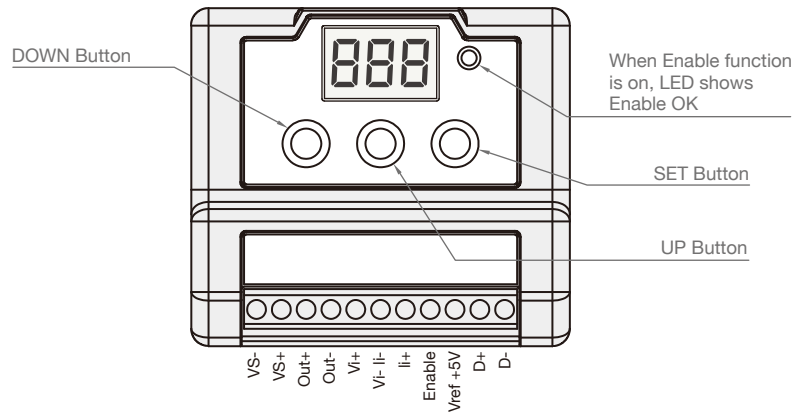
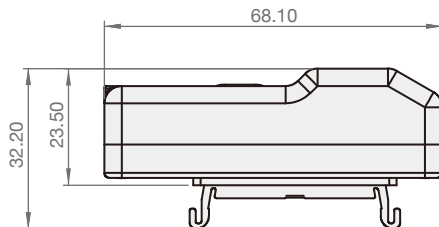
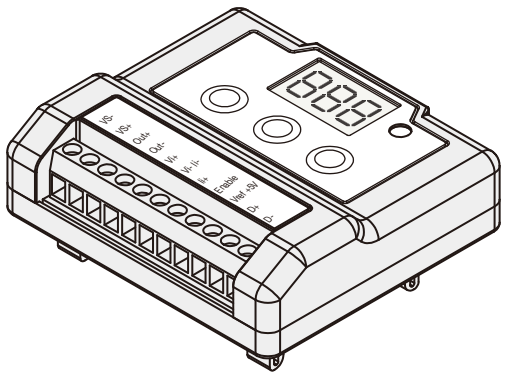
MODEL SPEC.

Model	SY-DPCA-C-1
Operating Voltage	9 ~ 32VDC
Voltage Tolerance	5%
Input Signal Options	0~5V, 0~10V, 4~20mA, RS485
Output Current	3A max.
Dither Frequency	70 ~ 350Hz
Ramp Up and Down	0.1 ~ 5.0s
Reference Voltage	5V (max. current 5mA)
Communication Interface	RS485
Communication Protocol	Modbus RTU
Operating Conditions	-20 ~ 60°C
Weight	0.1kg

Wiring Instruction

1	VS-	Power-
2	VS+	Power+
3	Out+	Coil+
4	Out-	Coil-
5	Vi+	Input voltage signal
6	Vi- li-	Signal ground
7	li+	Input current signal
8	Enable	Enable *
9	Vref +5V	+5V reference voltage
10	D+	RS485+ (optional)
11	D-	RS485- (optional)

* Default off. Ground this pin to enable controller when PEA function is on.



* A USB-RS485 converter (Purchase separately) is necessary to connect PC.

** Using a USB-RS485 converter, you can operate and configure parameters via the PC software provided by our company.

Please mail us to get the PC software : info@steedmachinery.com.tw.



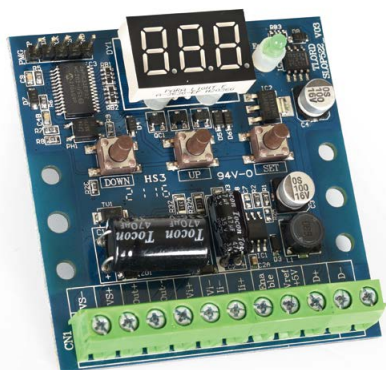
This product has been designed and tested to meet specific standards outlined in the European Electromagnetic Compatibility Directive (EMC)2014/30/EU.

Emission: EN 61000-6-4:2019

Immunity: EN 61000-6-2:2019; EN 61000-4-2:2009, EN 61000-4-3:2020, EN 61000-4-8:2010

Certificate No. NE1105240044

SY-DPCA-P-1



FEATURES

1. Precise Control
Digital microprocessor
2. Simple Setup
Digital display and buttons
3. Full Function
Adjustable input signal and output current
4. Safety
Short, open circuit protection with error code

ORDER CODES

SY - **DPCA** - **P** - **1**

1 2 3 4

1 ▶	Model Name	SY	
2 ▶	Control Mode	DPCA	digital proportional controller
3 ▶	Type	P	PCB only
4 ▶	Output	1	single coil

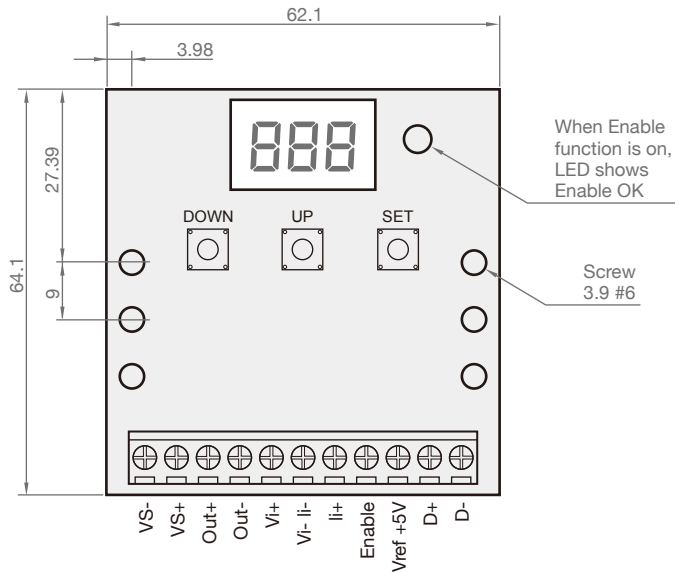
MODEL SPEC.

Model	SY-DPCA-P-1
Operating Voltage	9 ~ 32VDC
Voltage Tolerance	5%
Input Signal Options	0~5V, 0~10V, 4~20mA, RS485
Output Current	3A max.
Dither Frequency	70 ~ 350Hz
Ramp Up and Down	0.1 ~ 5.0s
Reference Voltage	5V (max. current 5mA)
Communication Interface	RS485
Communication Protocol	Modbus RTU
Operating Conditions	-20 ~ 60°C
Weight	0.06kg

Wiring Instruction

1	VS-	Power-
2	VS+	Power+
3	Out+	Coil+
4	Out-	Coil-
5	Vi+	Input voltage signal
6	Vi- li-	Signal ground
7	li+	Input current signal
8	Enable	Enable *
9	Vref +5V	+5V reference voltage
10	D+	RS485+ (optional)
11	D-	RS485- (optional)

* Default off. Ground this pin to enable controller when PEA function is on.



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Emission: EN 61000-6-4:2019

Immunity: EN 61000-6-2:2019; EN 61000-4-2:2009, EN 61000-4-3:2020, EN 61000-4-8:2010

Certificate No. NE1105240044

SY-DPCA-C-2



FEATURES

- Dual output with flexible switching
- Standard MODBUS RTU communication
- Advanced PID feedback control
- Independent PWM and dither frequency adjustment

ORDER CODES

SY - **DPCA** - **C** - **2**

1 2 3 4

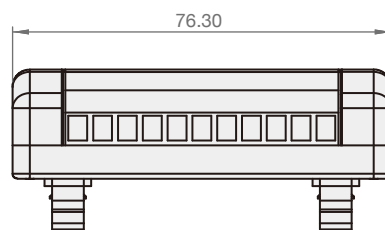
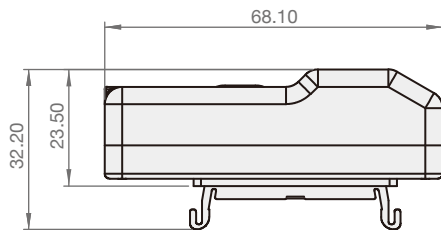
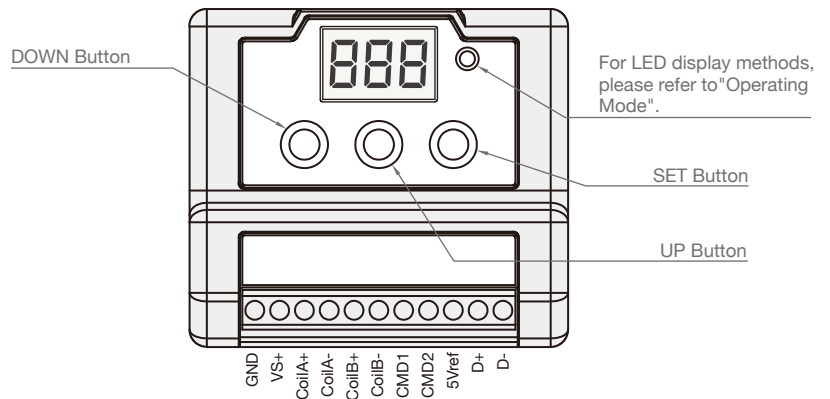
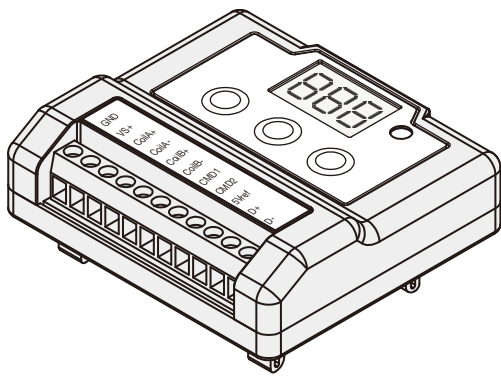
1	Model Name	SY	
2	Control Mode	DPCA	digital proportional controller
3	Type	C	case with DIN-35 rail clamps
		P	PCB only
4	Output	2	dual coil

MODEL SPEC.

Model	SY-DPCA-C-2
Operating Voltage	9 ~ 32VDC
Voltage Tolerance	5%
Input Signal Options	0~5V, 0~10V, 4~20mA, RS485
Output Current	3A max. for each output
PWM Frequency	70~1000Hz
Dither Frequency	70~500Hz
Ramp Up and Down	0.1 ~ 5.0s
Reference Voltage	5V (max. current 5mA)
Operating Conditions	-20 ~ 60°C
Communication Interface	RS485
Communication Protocol	Modbus RTU
Weight	0.1kg

Wiring Instruction

1	GND	Ground (VS+ / CMD)
2	VS+	Power source
3	CoilA+	Coil A output+
4	CoilA-	Coil A output-
5	CoilB+	Coil B output+
6	CoilB-	Coil B output-
7	CMD1	Command signal 1
8	CMD2	Command signal 2
9	5Vref	5V reference voltage
10	D+	RS485+
11	D-	RS485-



OPERATING MODE

	MODE 1	MODE 2	MODE 3
LED Color	Orange	Green	Red
Description	Single Command vs. Single Output	Dual Indep. Command vs. Dual Indep. Output	Single Command vs. Dual Linked Output

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** Using a USB-RS485 converter, you can operate and configure parameters via the PC software provided by our company.

Please mail us to get the PC software : info@steedmachinery.com.tw.



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Emission: EN 61000-6-4:2019

Immunity: EN 61000-6-2:2019; EN 61000-4-2:2009, EN 61000-4-3:2020, EN 61000-4-8:2010

Certificate No. NE1105240044

SY-DPCA-D-P9-1



FEATURES

- Direct assembly on the DIN43650 solenoid valve
- Control with digital microprocessor
- Simple setup via physical screen and button
- Short, open circuit protection with error code

ORDER CODES

SY - DPCA - D - P9 - 1

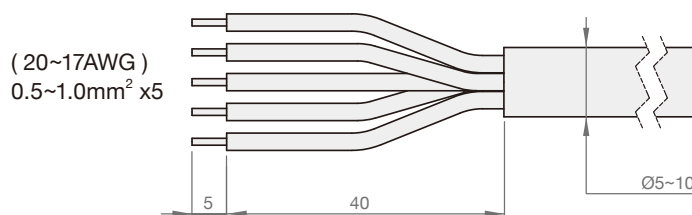
1 2 3 4 5

1	Model Name	SY	
2	Control Mode	DPCA	digital proportional controller
3	Type	D	DIN43650A plug
4	Connection	P9	PG9 cable gland
5	Output	1	single coil

MODEL SPEC.

Model	SY-DPCA-D-P9-1
Operating Voltage	9 ~ 32VDC
Voltage Tolerance	5%
Input Signal Options	0~5V, 0~10V, 4~20mA
Output Current	3A max.
Dither Frequency	70 ~ 350Hz
Ramp Up and Down	0.1 ~ 5.0s
Reference Voltage	5V (max. current 5mA)
Operating Conditions	-20 ~ 60°C
Weight	0.2kg

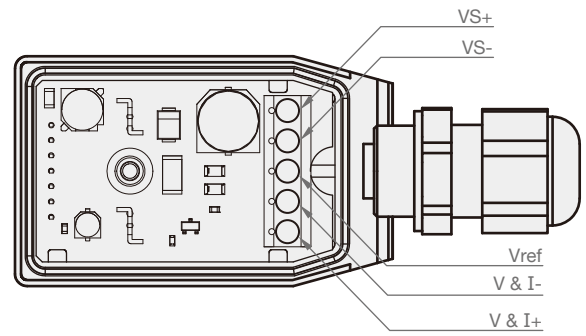
WIRING PREPARATION



CONNECTIONS

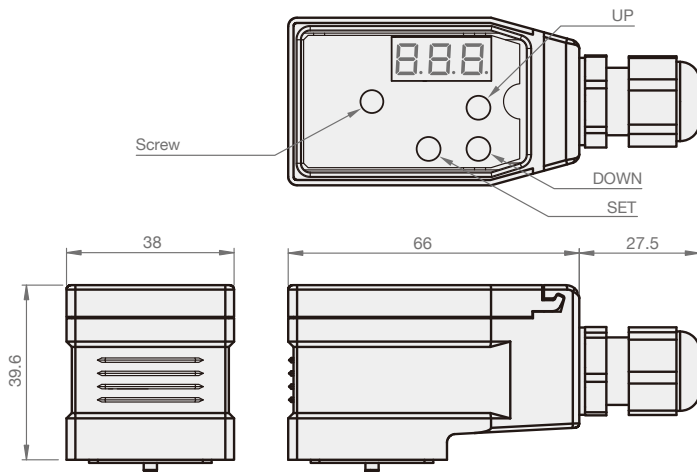
Wiring Instruction

1	VS+	Power+
2	VS-	Power-
3	Vref	+5V reference voltage
4	V & I-	Command ground
5	V & I+	Command

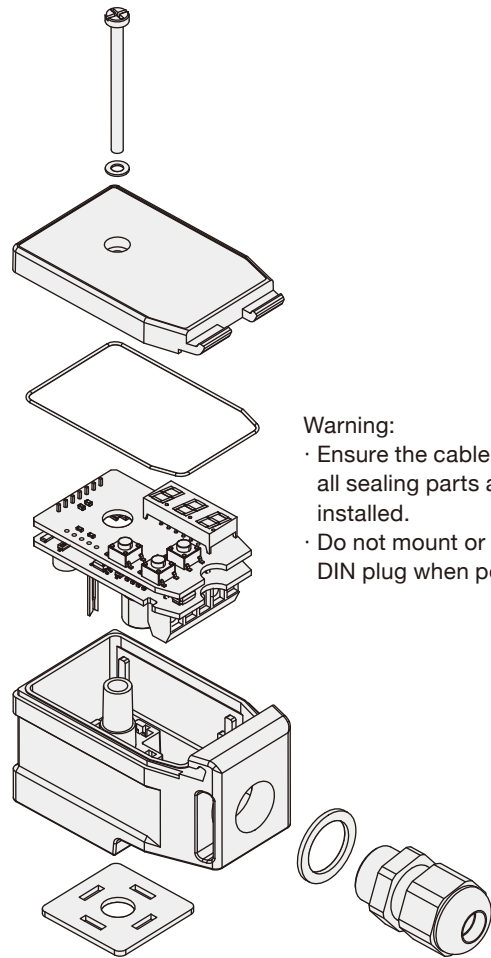


DIMENSIONS

(UNIT : mm)



ASSEMBLY



Warning:

- Ensure the cable gland and all sealing parts are properly installed.
- Do not mount or dismount the DIN plug when power is on.



This product has been designed and tested to meet specific standards outlined in the European Electromagnetic Compatibility Directive (EMC)2014/30/EU.

Emission: EN 61000-6-4:2019

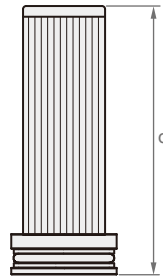
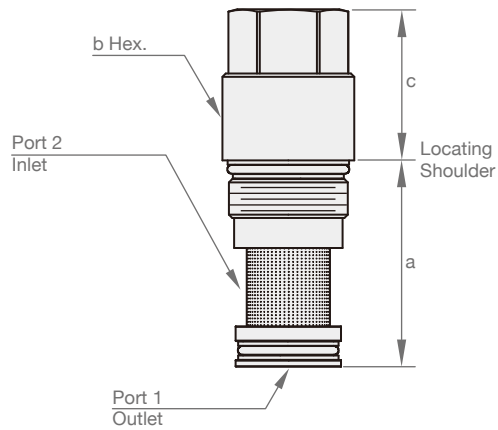
Immunity: EN 61000-6-2:2019; EN 61000-4-2:2009, EN 61000-4-3:2020, EN 61000-4-8:2010

Certificate No. NE1105240044

FLA

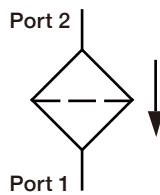
DIMENSION

(UNIT : mm)



Model	a	b	c	d
FLA-02	40.0	22.2	30.7	59.5
FLA-03	41.7	28.6	33.3	66.0
FLA-06	62.2	31.8	41.4	97.5
FLA-08	79.5	41.3	54.1	126

SYMBOLS



ORDER CODES

FLA - **02** - **ST13A** - **D** **N** **U**

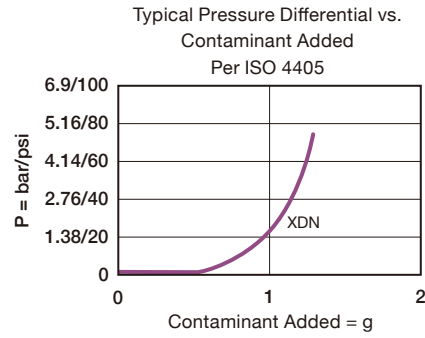
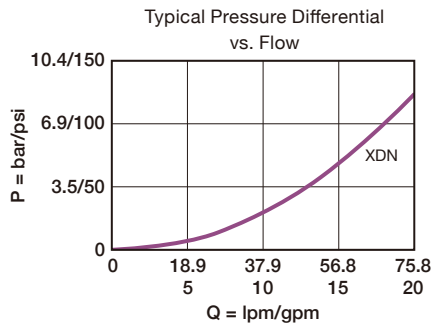
1 1 3 4 5 6

1	Model Name	FLA	
2	Valve Size	02, 03, 06, 08	
3	Cavity	ST13A, ST5A, ST16A, ST18A	
5	Filter Rating (FLA-02, 03)	D	40um (surface type)
5	Filter Rating (FLA-06, 08)	D	40um (surface type)
		A	3um (depth type)
		B	10um (depth type)
		C	25um (depth type)
6	Material of Seal	N	buna-N
		V	viton
4	Control Manner	U	unadjustable

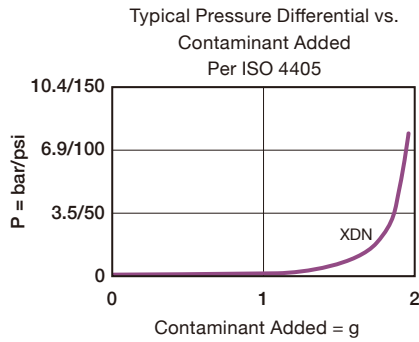
MODEL SPEC.

Model	Cavity	Capacity	Max. Pressure	Installation Torque (Nm)	Operating Temperature	Weight (kg)
FLA-02	ST13A	37.9 l/min / 10 gpm	345 bar / 5000 psi	40/50	-35 ~ 100°C (-31 ~ 212°F)	0.09
FLA-03	ST5A	75.7 l/min / 20 gpm		60/70		0.19
FLA-06	ST16A	151.4 l/min / 40 gpm		200/215		0.315
FLA-08	ST18A	302.8 l/min / 80 gpm		465/500		0.71

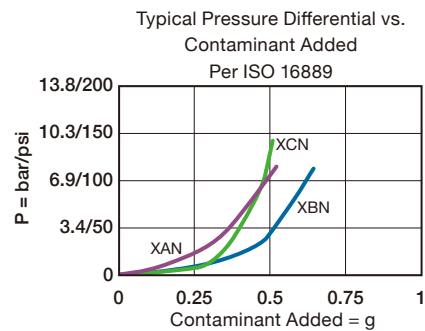
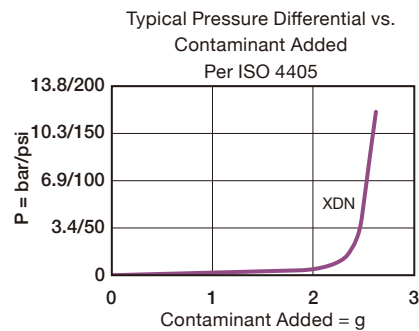
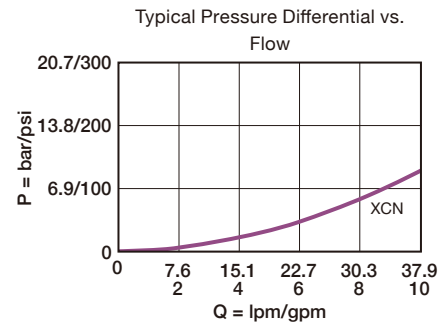
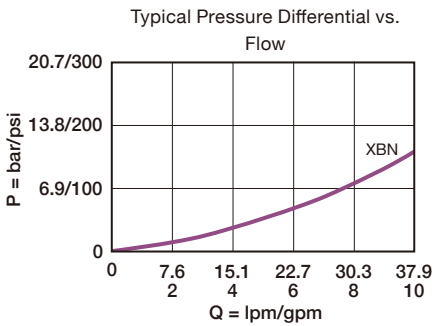
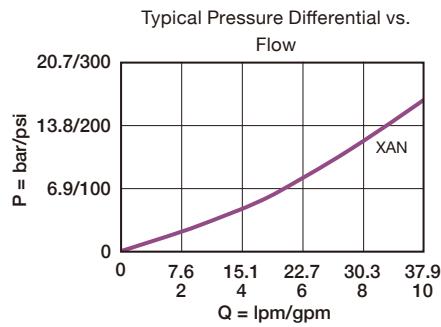
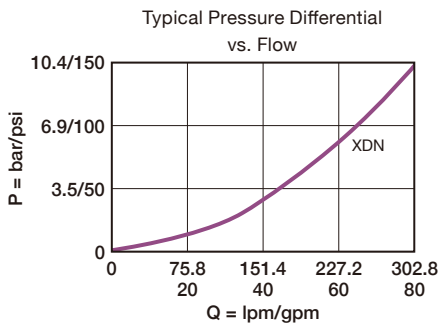
► FLA-02



► FLA-03

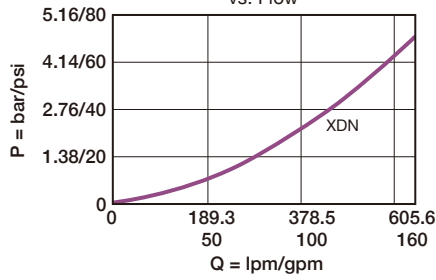


► FLA-06

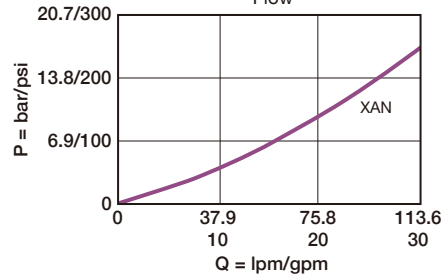


► FLA-08

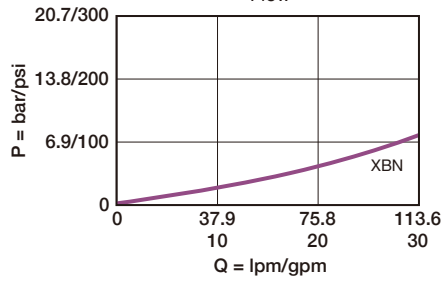
Typical Pressure Differential
vs. Flow



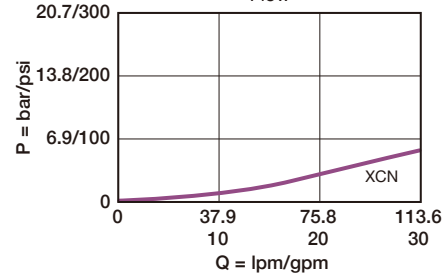
Typical Pressure Differential vs.
Flow



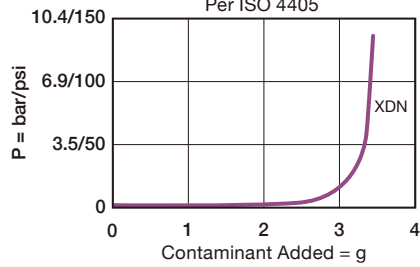
Typical Pressure Differential vs.
Flow



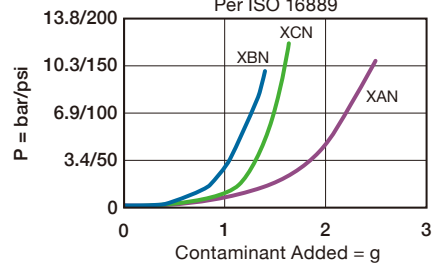
Typical Pressure Differential vs.
Flow

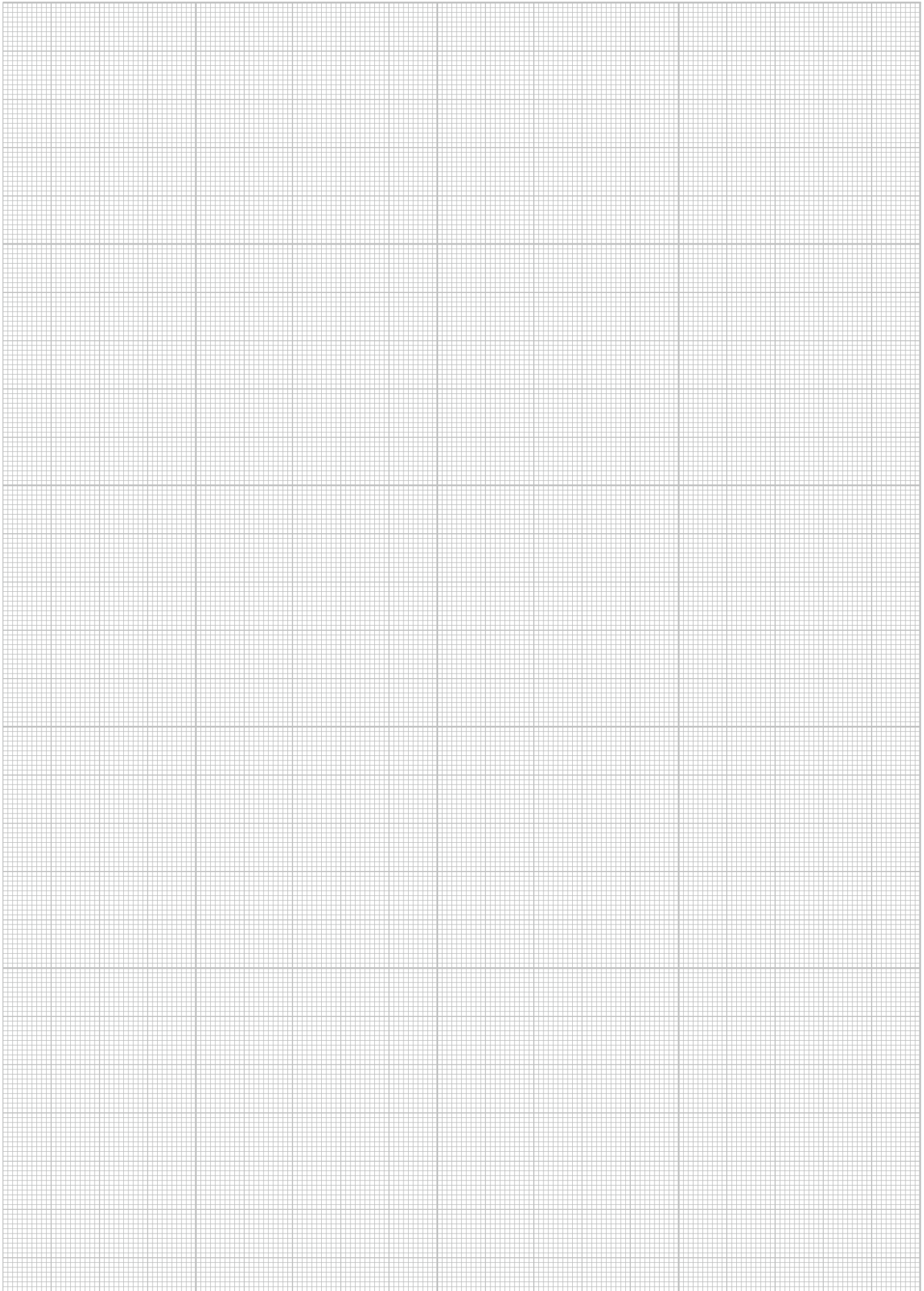


Typical Pressure Differential vs.
Contaminant Added
Per ISO 4405



Typical Pressure Differential vs.
Contaminant Added
Per ISO 16889

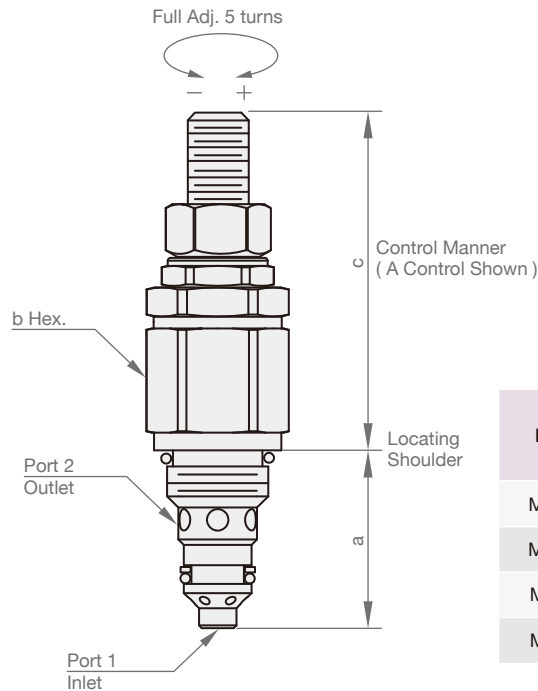




MH

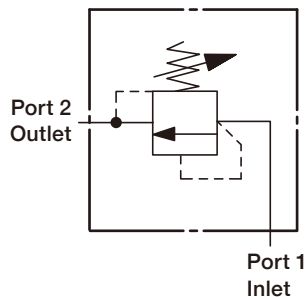
DIMENSION

(UNIT : mm)



Model	a	b	c		
			A	B	C
MH-082	34	24	60	66	48
MH-092	54	26	58	93	36
MH-102	38.8	25.4	58	64	36
MH-122	59	31.8	61	-	67

SYMBOLS



ORDER CODES

MH - **082** - **A** **N** **A**

1 2 3 4 5

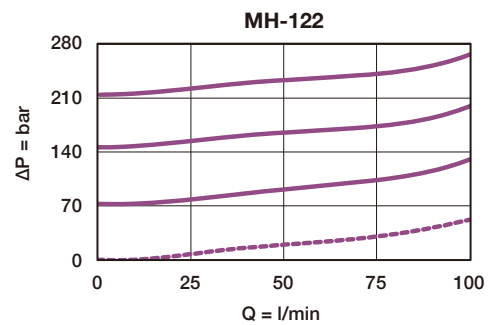
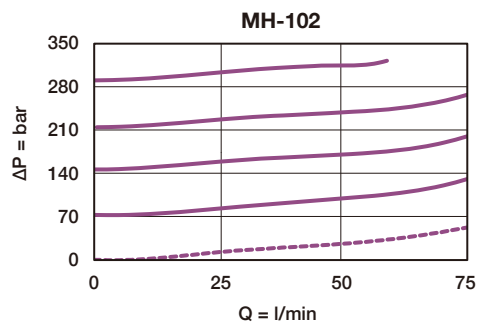
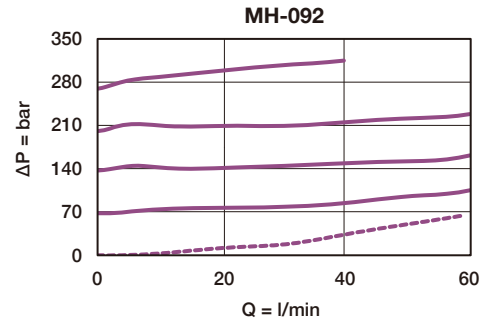
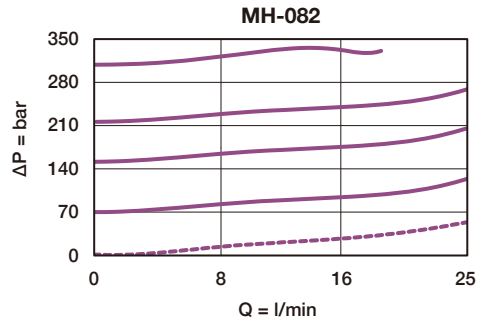
1	Model Name	MH
2	Valve Size & Cavity	082, 092, 102, 122
3	Adjustable Range	A 7 ~ 210 bar
		B 3.5 ~ 105 bar
		C 90 ~ 350 bar
4	Material of Seal	N buna-N
		V viton
		E EPDM
		H HNBR
		U polyurethane
5	Control Manner	A adjustable screw
		B control knob
		C tamper resistant cover

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
MH-082	ST082	25	350	40/50	-35 ~ 100°C (-31 ~ 212°F)	0.15
MH-092	ST092	45	350	40/50		0.25
MH-102	ST102	55	350	40/50		0.20
MH-122	ST122	85	280	45/50		0.32

PERFORMANCE CURVES

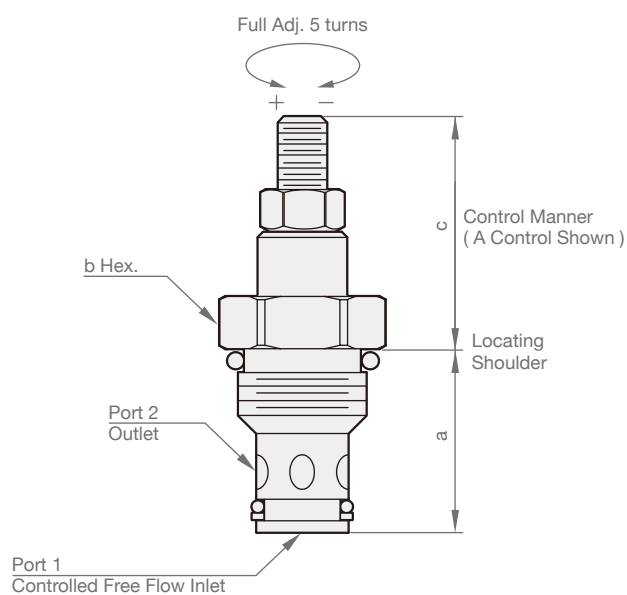
► Typical Pressure Rise



CN

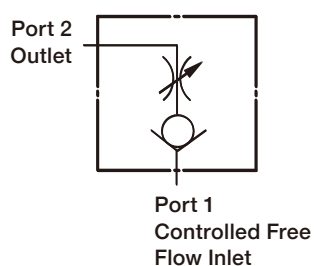
DIMENSION

(UNIT : mm)



Model	a	b	c	
			A	B
CN-082	27.7	22.4	48	53
CN-102	31.8	25.4	51	56
CN-122	46.0	31.8	53	58
CN-162	44.5	38.1	59	64

SYMBOLS



ORDER CODES

CN - **082** - **A** **N** **A**

1 2 3 4 5

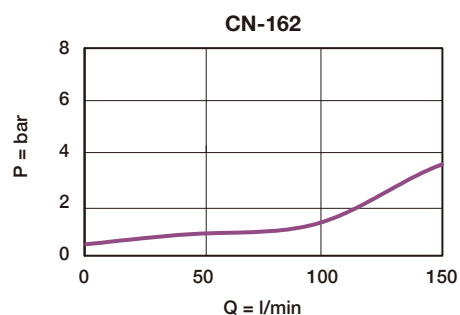
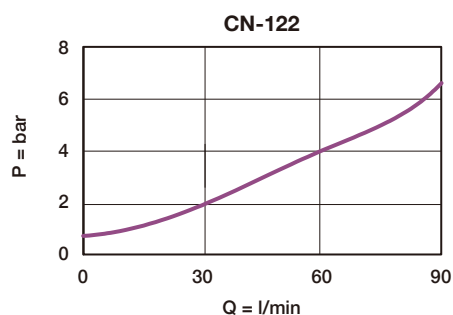
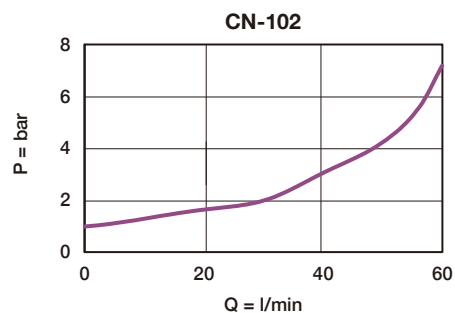
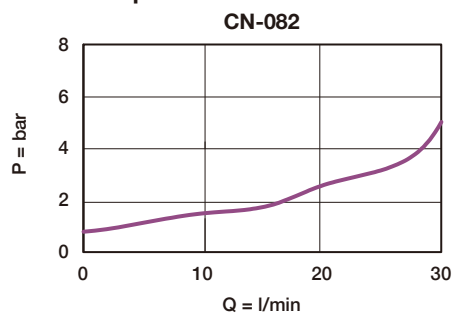
1	Model Name	CN	
2	Cavity & Max. Orifice	082, 102, 122, 162	
3	Cracking Pressure	A	0.3 bar
		C	2.0 bar
		E	5.0 bar
4	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
5	Control Manner	A	adjustable screw
		B	control knob

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
CN-082	ST082	30	300	40/50	-35 ~ 100°C (-31 ~ 212°F)	0.11
CN-102	ST102	50	300	40/50		0.14
CN-122	ST122	80	300	40/50		0.26
CN-162	ST162	150	300	40/50		0.39

PERFORMANCE CURVES

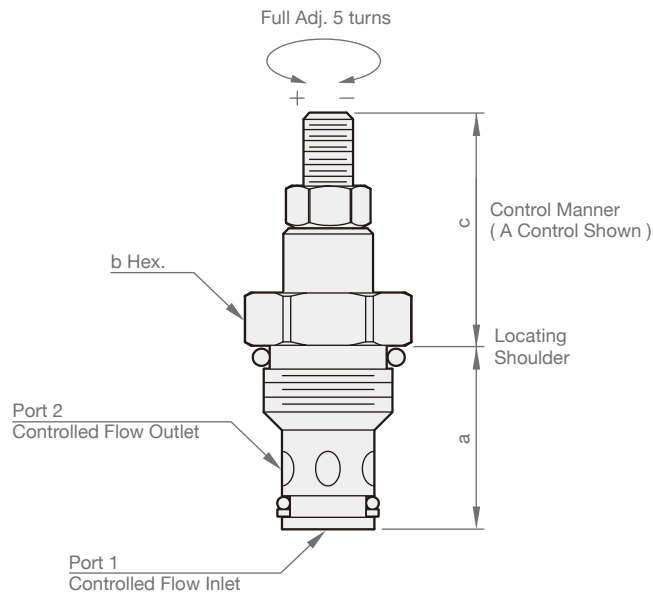
► Typical Pressure Drop



NV

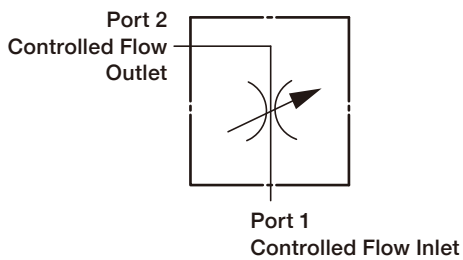
DIMENSION

(UNIT : mm)



Model	a	b	c	
			A	B
NV-082	27.7	22.4	48	53
NV-102	31.8	25.4	51	56
NV-122	46.0	31.8	53	58
NV-162	44.5	38.1	59	64

SYMBOLS



ORDER CODES

NV - **082** - **A** **N** **A**

① ② ③ ④

① ▶ Model Name	NV	
② ▶ Cavity & Max. Orifice	082	ST082, 6.5mm
	102	ST102, 8.5mm
	122	ST122, 12.5mm
	162	ST162, 16mm
③ ▶ Material of Seal	N	buna-N
	V	viton
	E	EPDM
	H	HNBR
	U	polyurethane
④ ▶ Control Manner	A	adjustable screw
	B	control knob

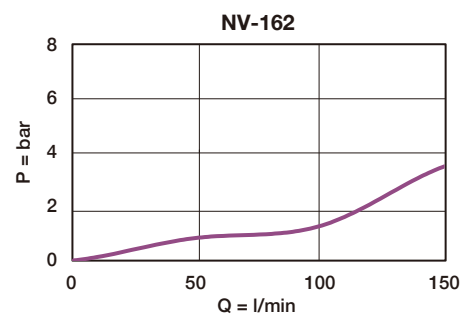
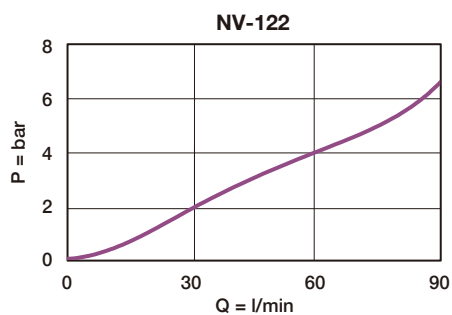
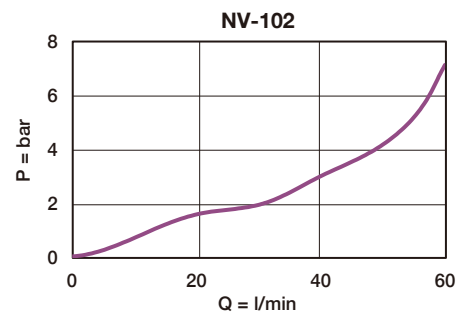
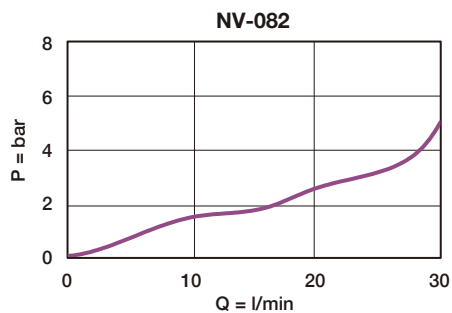
MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
NV-082	ST082	30	300	40/50	-35 ~ 100°C (-31 ~ 212°F)	0.11
NV-102	ST102	50	300	40/50		0.14
NV-122	ST122	80	300	40/50		0.26
NV-162	ST162	150	300	40/50		0.39

PERFORMANCE CURVES

► Typical Pressure Drop

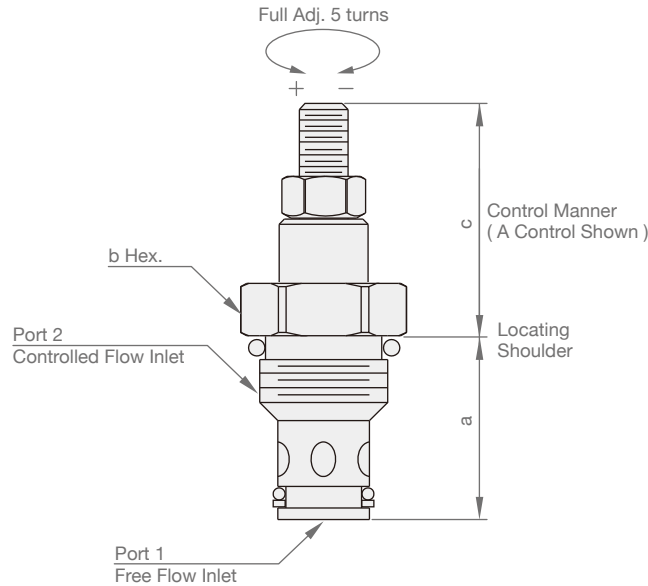
— Fully Open, Port1 ~ Port2



NC

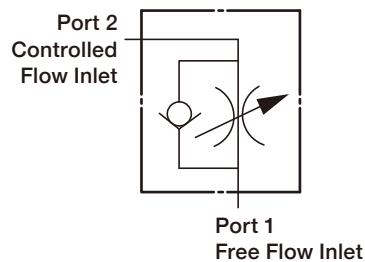
DIMENSION

(UNIT : mm)



Model	a	b	c	
			A	B
NC-082	27.7	22.4	48	53
NC-102	31.8	25.4	51	56
NC-122	46.0	31.8	53	58
NC-162	44.5	38.1	59	64

SYMBOLS



ORDER CODES

NC - **082** - **C** **N** **A**

1 2 3 4 5

1	Model Name	NC	
2	Cavity & Max. Orifice	082	ST082, 5.9mm
		102	ST102, 8mm
		122	ST122, 11mm
		162	ST162, 13mm
3	Cracking Pressure	C	2.0 bar
4	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
5	Control Manner	A	adjustable screw
		B	control knob

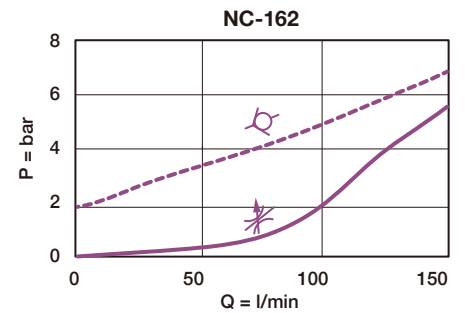
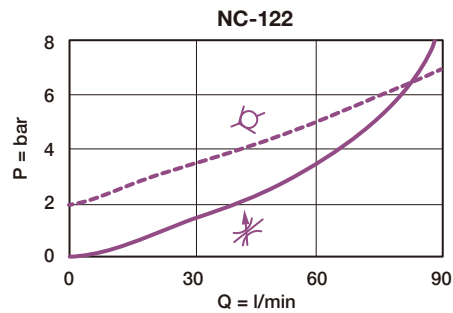
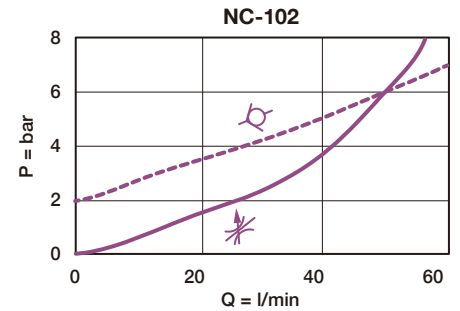
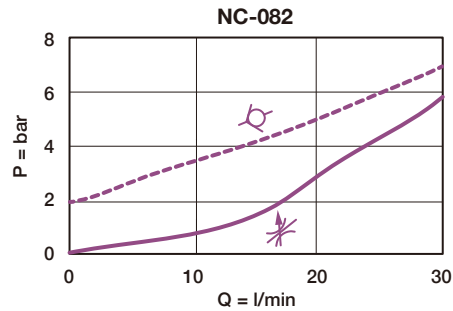
MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
NC-082	ST082	30	300	40/50	-35 ~ 100°C (-31 ~ 212°F)	0.11
NC-102	ST102	50	300	40/50		0.14
NC-122	ST122	80	300	40/50		0.26
NC-162	ST162	150	300	40/50		0.39

PERFORMANCE CURVES

► Typical Pressure Drop

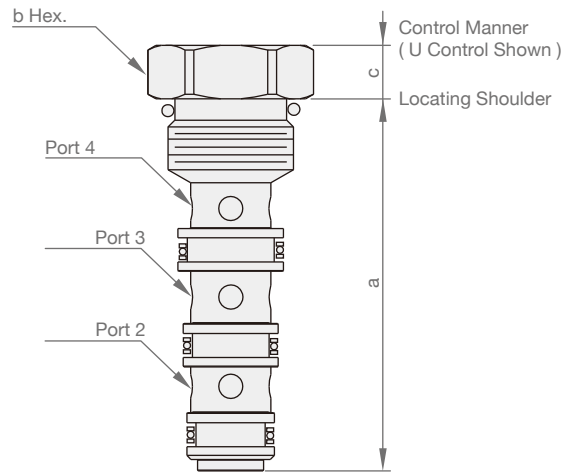
- Free Flow, Port1 ~ Port2
- Fully Open, Port2 ~ Port1



CP

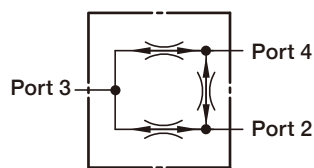
DIMENSION

(UNIT : mm)



Model	a	b	c
			U
CP-104	64.8	25.4	7.9
CP-124	85.1	31.8	9.5
CP-164	105.0	38.1	12.7

SYMBOLS



Flow Ratio:
Port 2 : Port 4 = 1:1

ORDER CODES

CP - **104** - **2** - **C** **N** **U**

1 2 3 4 5 6

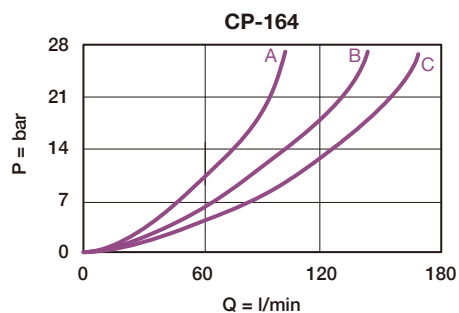
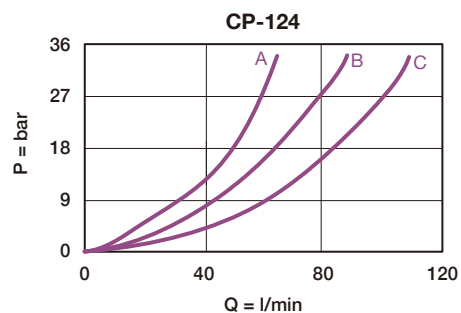
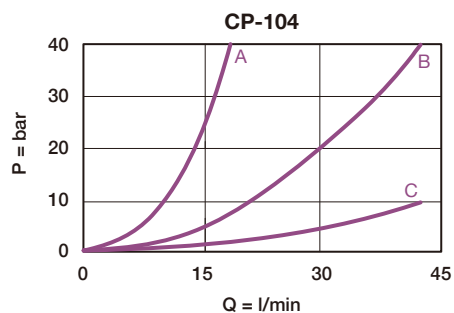
1	Model Name	CP	
2	Valve Size & Cavity	104, 124, 164	
3	Type	none	standard
		2	anti-stall
4	Capacity (l/min)	A	CP-104: 7.6, CP-124: 38, CP-164: 91
		B	CP-104: 23, CP-124: 53, CP-164: 114
		C	CP-104: 45, CP-124: 90, CP-164: 150
5	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
6	Control Manner	U	unadjustable

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
CP-104	ST104	45	210	35/45	-35 ~ 100°C (-31 ~ 212°F)	0.11
CP-124	ST124	90	210	45/55		0.23
CP-164	ST164	150	210	60/70		0.37

PERFORMANCE CURVES

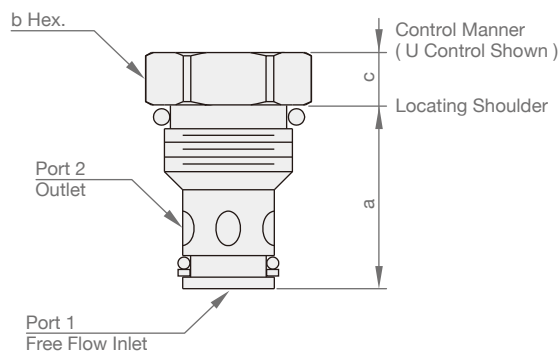
► Typical Pressure Drop



CV

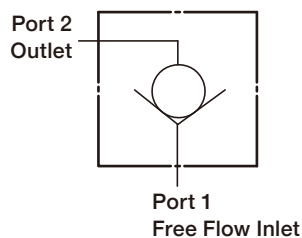
DIMENSION

(UNIT : mm)



Model	a	b	c
			U
CV-082	27.7	22.4	7.9
CV-102	31.8	25.4	7.9
CV-122	46.0	31.8	9.5
CV-162	44.5	38.1	14.0

SYMBOLS



ORDER CODES

CV - **082** - **A** **N** **U**

① ② ③ ④ ⑤

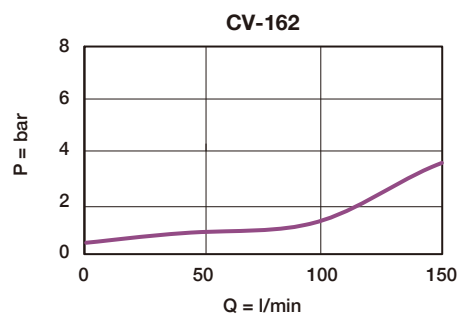
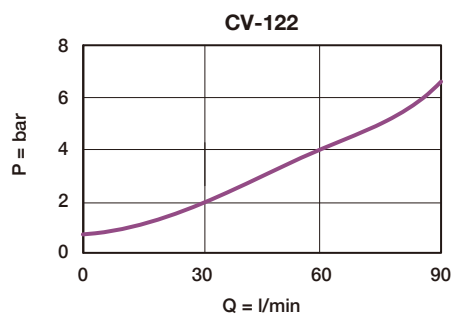
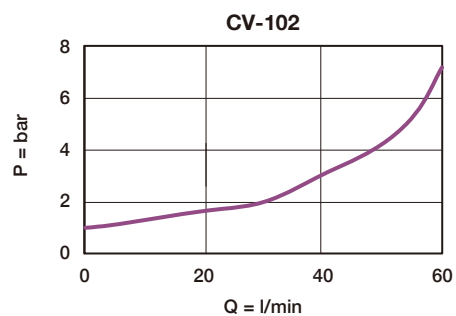
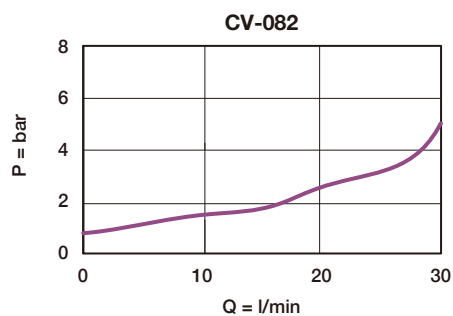
① ▶ Model Name	CV	
② ▶ Valve Size & Cavity	082, 102, 122, 162	
③ ▶ Cracking Pressure	A	0.3 bar
	C	2.0 bar
	E	5.0 bar
④ ▶ Material of Seal	N	buna-N
	V	viton
	E	EPDM
	H	HNBR
	U	polyurethane
⑤ ▶ Control Manner	U	unadjustable

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
CV-082	ST082	30	300	40/50	-35 ~ 100°C (-31 ~ 212°F)	0.06
CV-102	ST102	50	300	40/50		0.09
CV-122	ST122	80	300	40/50		0.15
CV-162	ST162	150	300	40/50		0.27

PERFORMANCE CURVES

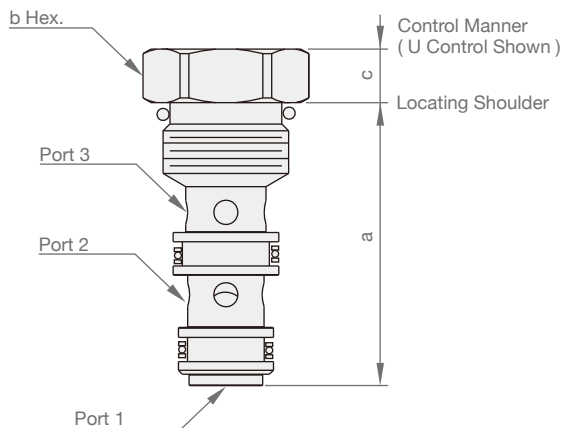
► Typical Pressure Drop



LS

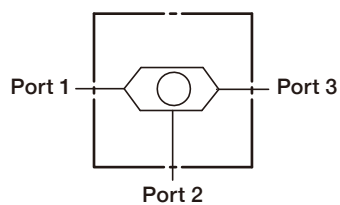
DIMENSION

(UNIT : mm)



Model	a	b	c
			U
LS-083	42.2	22.4	8
LS-103	46.0	25.4	8

SYMBOLS



ORDER CODES

LS - **083** - X **N** **U**

1 2 3 4

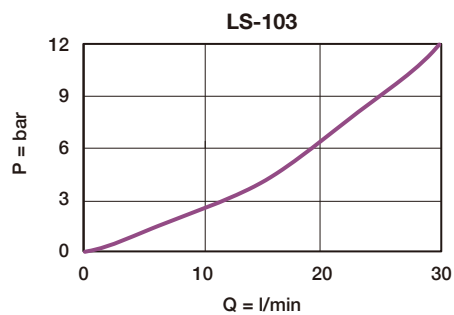
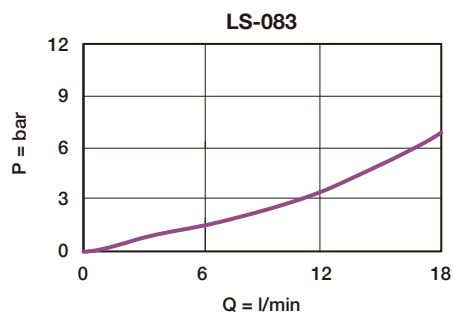
1	Model Name	LS	
2	Valve Size & Cavity	083, 103	
3	Material of Seal	N	buna-N
		V	viton
		E	EPDM
		H	HNBR
		U	polyurethane
4	Control Manner	U	unadjustable

MODEL SPEC.

Model	Cavity	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Operating Temperature	Weight (kg)
LS-083	ST083	15	240	30/40	-35 ~ 100°C (-31 ~ 212°F)	0.06
LS-103	ST103	30	240	40/50		0.10

PERFORMANCE CURVES

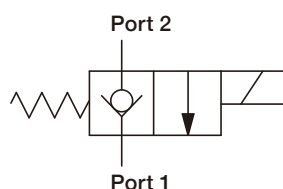
► Typical Pressure Drop



HS, JS, LS, PS-2A



SYMBOLS



ORDER CODES

HS - **2A** - **16** - **A1**

1 2 3 4

1 ▶ Cavity	HS	ST082
	JS	ST102
	LS	ST122
	PS	ST162
2 ▶ Type of Valve	2A	
3 ▶ Tube Diameter	16	
4 ▶ Power Source	A1	RAC110V
	A2	RAC220V
	D1	DC12V
	D2	DC24V

MODEL SPEC.

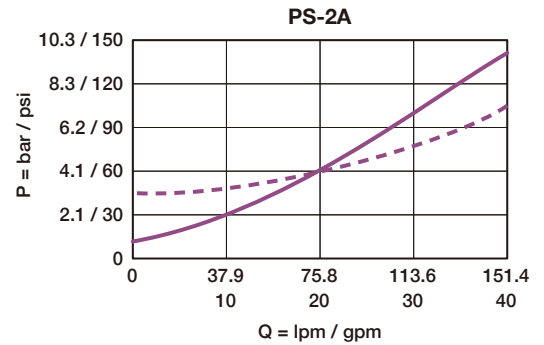
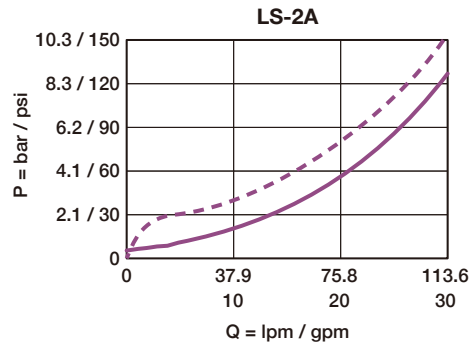
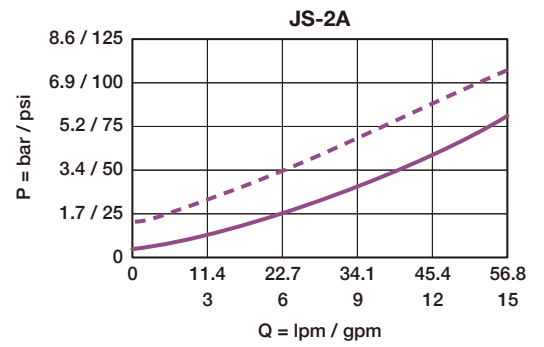
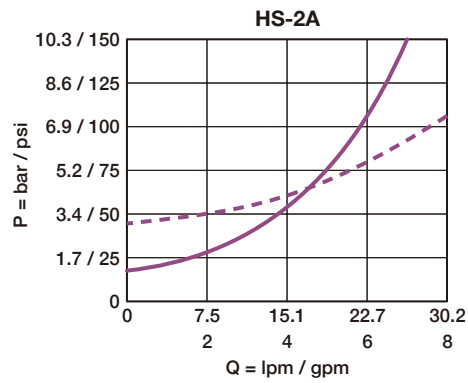
Model	Cavity	Tube Diameter	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Weight (kg)
HS-2A	ST082	16	28	250	39/51	0.41
JS-2A	ST102	16	50	250	39/51	0.43
LS-2A	ST122	16	100	250	39/51	0.53
PS-2A	ST162	16	150	250	39/51	0.62

PERFORMANCE CURVES

Typical Pressure Drop

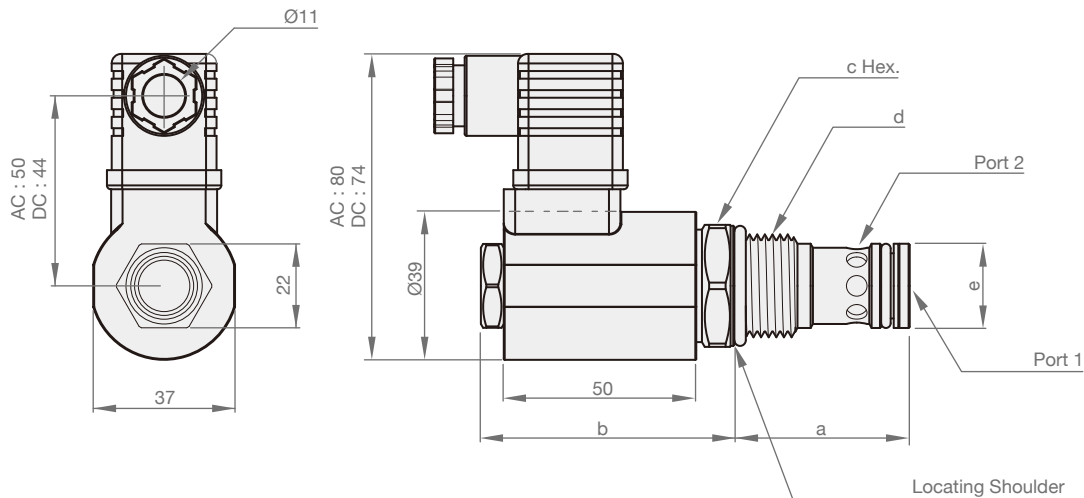
- de-energized,
Port 1 → Port 2
- energized,
Port 2 → Port 1

* 32cSt / 150 ssu oil at 40°C



DIMENSION

(UNIT : mm)

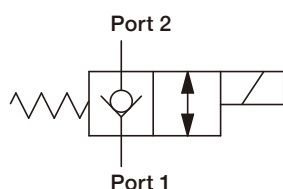


Model	a	b	c	d	e
HS-2A	28	64	22	3/4"-16UNF	12.7
JS-2A	32	64	25.4	7/8"-14UNF	15.8
LS-2A	45	64	32	1 1/16"-12UNF	22.2
PS-2A	45	65	38	1 5/16"-12UNF	28.6

HS, JS, LS, PS-2B



SYMBOLS



ORDER CODES

HS - **2B** - **16** - **A2**

1 2 3 4

1 ▶ Cavity	HS	ST082
	JS	ST102
	LS	ST122
	PS	ST162
2 ▶ Type of Valve	2B	
3 ▶ Tube Diameter	16	
4 ▶ Power Source	A1	RAC110V
	A2	RAC220V
	D1	DC12V
	D2	DC24V

MODEL SPEC.

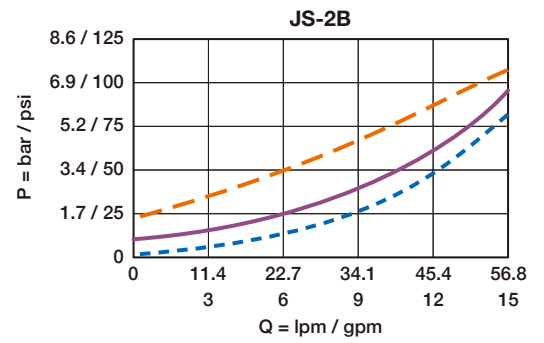
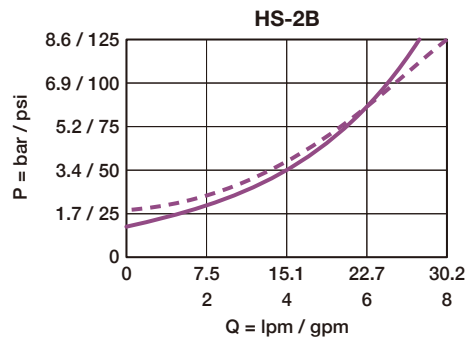
Model	Cavity	Tube Diameter	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Weight (kg)
HS-2B	ST082	16	28	250	39/51	0.41
JS-2B	ST102	16	50	250	39/51	0.43
LS-2B	ST122	16	100	250	39/51	0.53
PS-2B	ST162	16	150	250	39/51	0.62

PERFORMANCE CURVES

Typical Pressure Drop

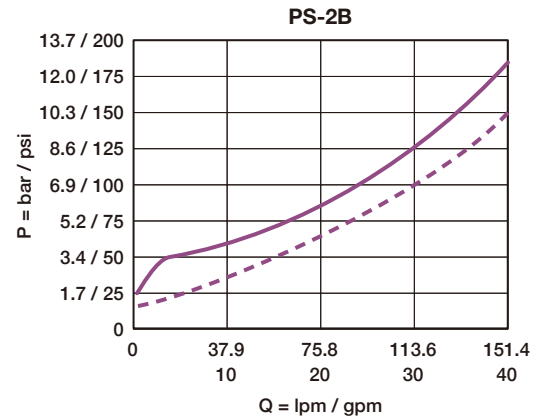
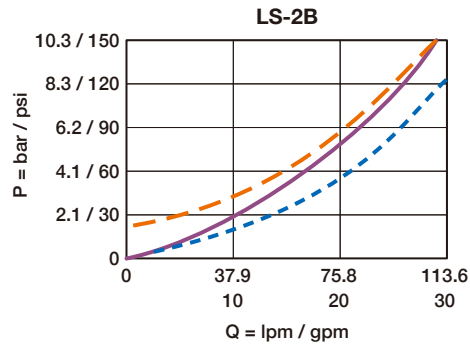
HS-2B, PS-2B

- de-energized,
Port 1 → Port 2
- energized,
Port 2 → Port 1



JS-2B, LS-2B

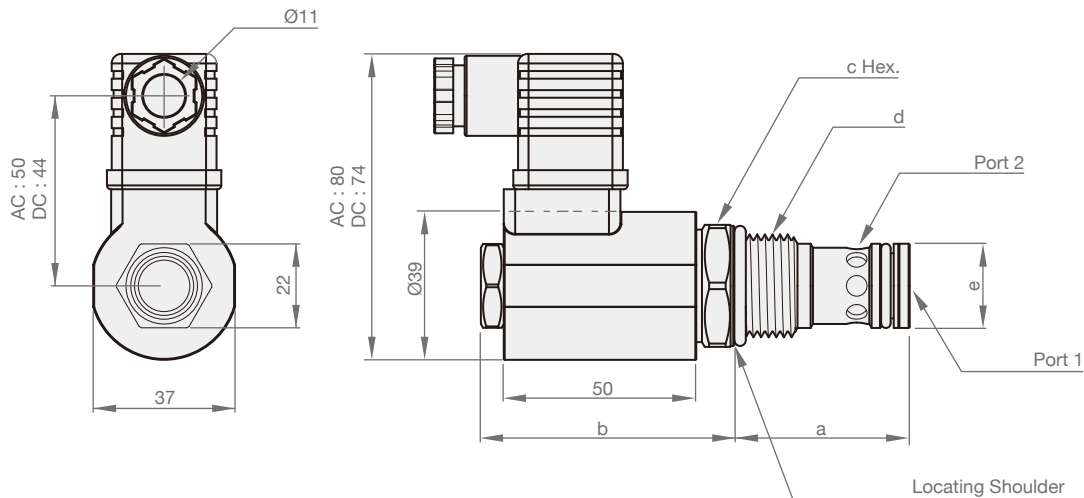
- de-energized,
Port 1 → Port 2
- energized,
Port 2 → Port 1
- energized,
Port 1 → Port 2



* 32cSt / 150 ssu oil at 40°C

DIMENSION

(UNIT : mm)

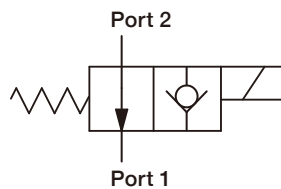


Model	a	b	c	d	e
HS-2B	28	64	22	3/4"-16UNF	12.7
JS-2B	32	64	25.4	7/8"-14UNF	15.8
LS-2B	45	64	32	1 1/16"-12UNF	22.2
PS-2B	45	65	38	1 5/16"-12UNF	28.6

HS, JS, LS, PS-2C



SYMBOLS



ORDER CODES

JS - **2C** - **16** - **A1**

1 2 3 4

1 ▶ Cavity	HS	ST082
	JS	ST102
	LS	ST122
	PS	ST162
2 ▶ Type of Valve	2C	
3 ▶ Tube Diameter	16	
4 ▶ Power Source	A1	RAC110V
	A2	RAC220V
	D1	DC12V
	D2	DC24V

MODEL SPEC.

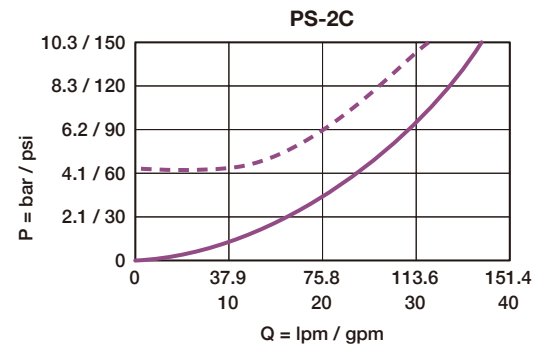
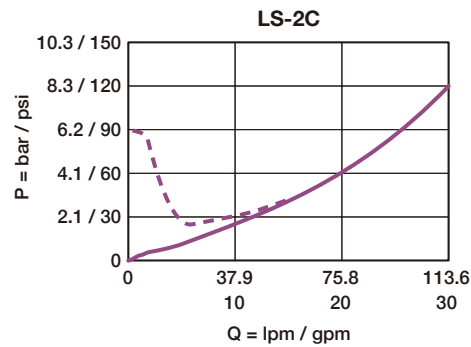
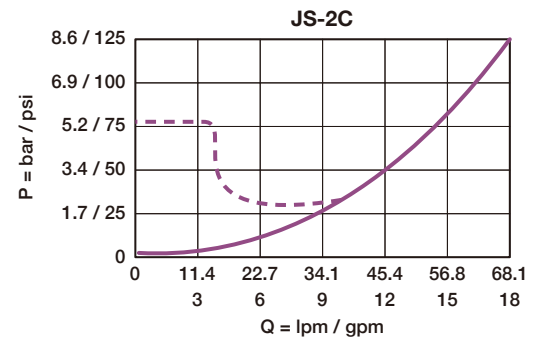
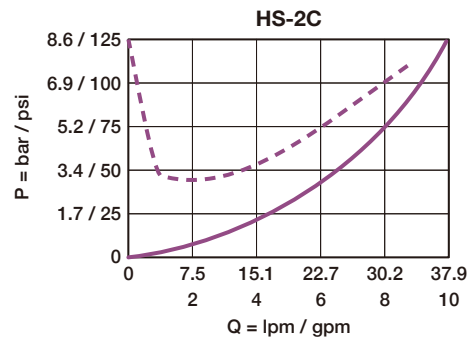
Model	Cavity	Tube Diameter	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Weight (kg)
HS-2C	ST082	16	28	250	39/51	0.41
JS-2C	ST102	16	50	250	39/51	0.43
LS-2C	ST122	16	100	250	39/51	0.56
PS-2C	ST162	16	150	250	39/51	0.67

PERFORMANCE CURVES

► Typical Pressure Drop

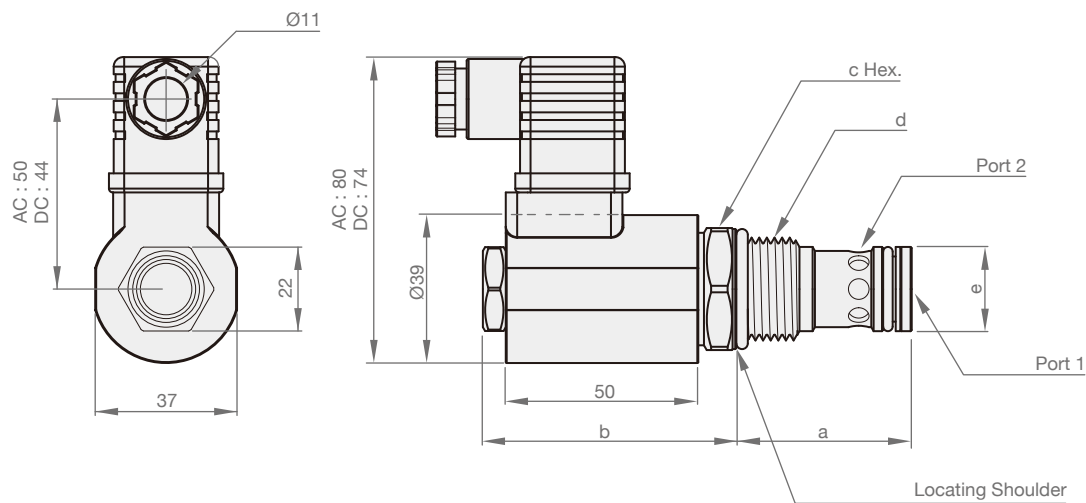
- energized,
Port 1 → Port 2
- de-energized,
Port 2 → Port 1

* 32cSt / 150 ssu oil at 40°C



DIMENSION

(UNIT : mm)

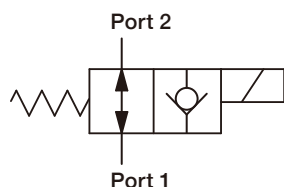


Model	a	b	c	d	e
HS-2C	28	64	22	3/4"-16UNF	12.7
JS-2C	32	64	25.4	7/8"-14UNF	15.8
LS-2C	45	64	32	1 1/16"-12UNF	22.2
PS-2C	45	65	38	1 5/16"-12UNF	28.6

HS, JS, LS, PS-2D



SYMBOLS



ORDER CODES

JS - **2D** - **16** - **A2**

1 2 3 4

1 ▶ Cavity	HS	ST082
	JS	ST102
	LS	ST122
	PS	ST162
2 ▶ Type of Valve	2D	
3 ▶ Tube Diameter	16	
4 ▶ Power Source	A1	RAC110V
	A2	RAC220V
	D1	DC12V
	D2	DC24V

MODEL SPEC.

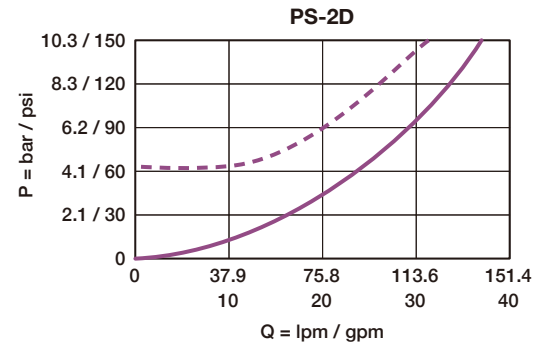
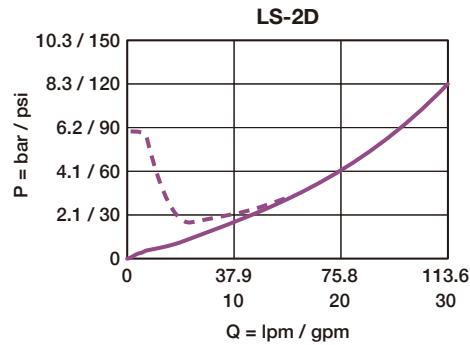
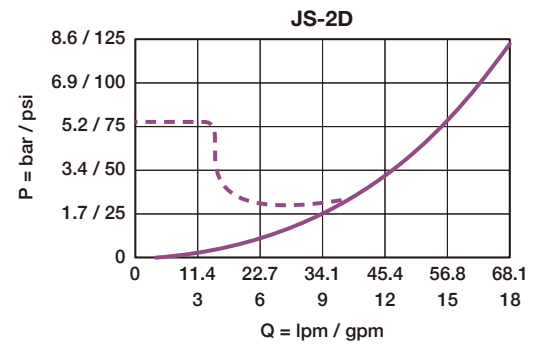
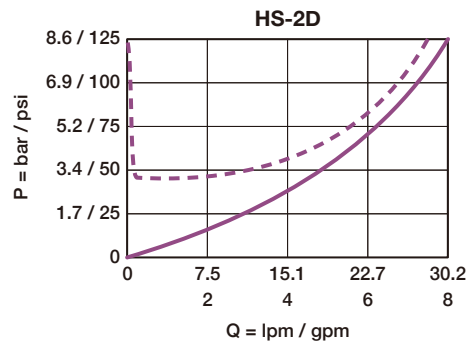
Model	Cavity	Tube Diameter	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Weight (kg)
HS-2D	ST082	16	28	250	39/51	0.41
JS-2D	ST102	16	50	250	39/51	0.46
LS-2D	ST122	16	100	250	39/51	0.56
PS-2D	ST162	16	150	250	39/51	0.67

PERFORMANCE CURVES

Typical Pressure Drop

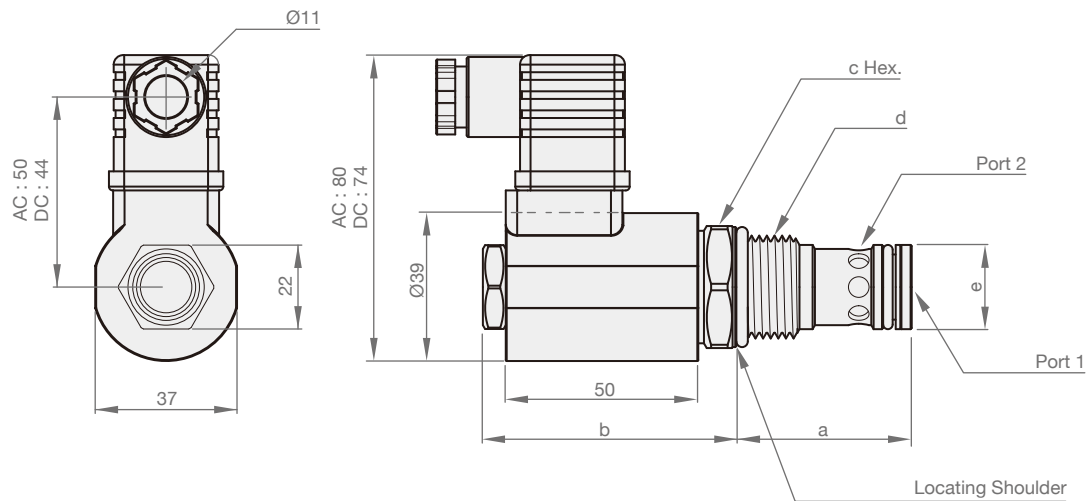
- energized,
Port 1 → Port 2
- de-energized,
Port 2 → Port 1

* 32cSt / 150 ssu oil at 40°C



DIMENSION

(UNIT : mm)

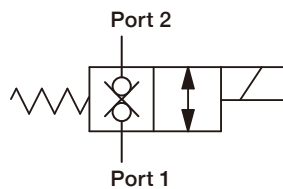


Model	a	b	c	d	e
HS-2D	28	64	22	3/4"-16UNF	12.7
JS-2D	32	64	25.4	7/8"-14UNF	15.8
LS-2D	45	64	32	1 1/16"-12UNF	22.2
PS-2D	45	65	38	1 5/16"-12UNF	28.6

HS, JS, LS, PS-2I



SYMBOLS



ORDER CODES

PS - **2I** - **19** - **D1**

1 2 3 4

1 ▶ Cavity	HS	ST082
	JS	ST102
	LS	ST122
	PS	ST162
2 ▶ Type of Valve	2I	
3 ▶ Tube Diameter	16, 19	
4 ▶ Power Source	A1	RAC110V
	A2	RAC220V
	D1	DC12V
	D2	DC24V

MODEL SPEC.

Model	Cavity	Tube Diameter	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Weight (kg)
HS-2I	ST082	16	28	250	39/51	0.41
JS-2I	ST102	16	50	250	39/51	0.45
LS-2I	ST122	16	100	250	39/51	0.56
PS-2I	ST162	19	150	250	39/51	0.67

PERFORMANCE CURVES

Typical Pressure Drop

HS-2I

energized,
Port 2 ↔ Port 1

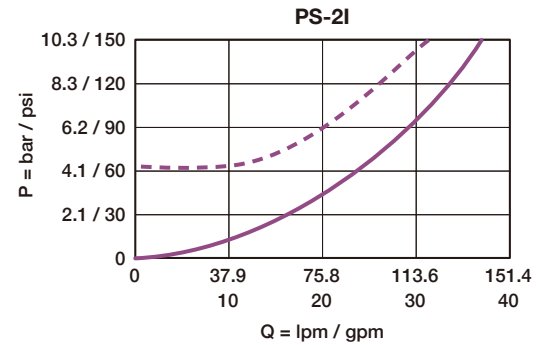
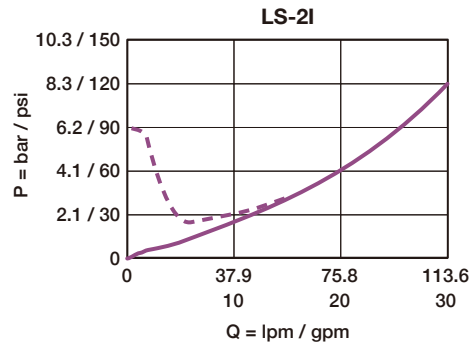
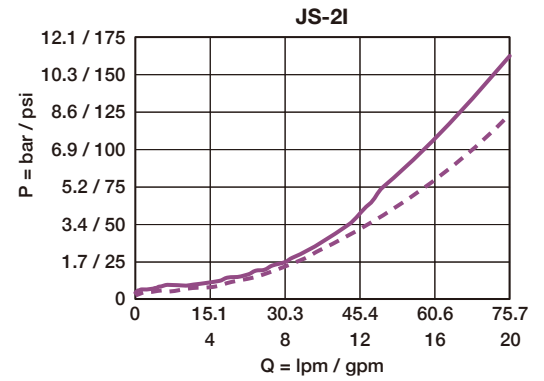
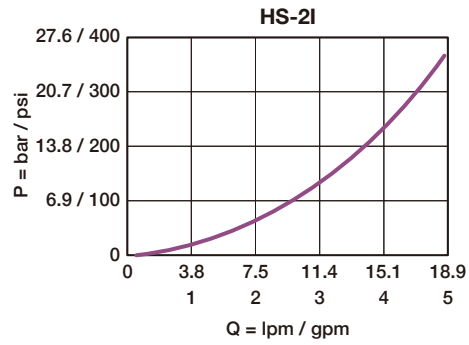
JS-2I

energized,
Port 1 → Port 2
energized,
Port 2 → Port 1

LS-2I, PS-2I

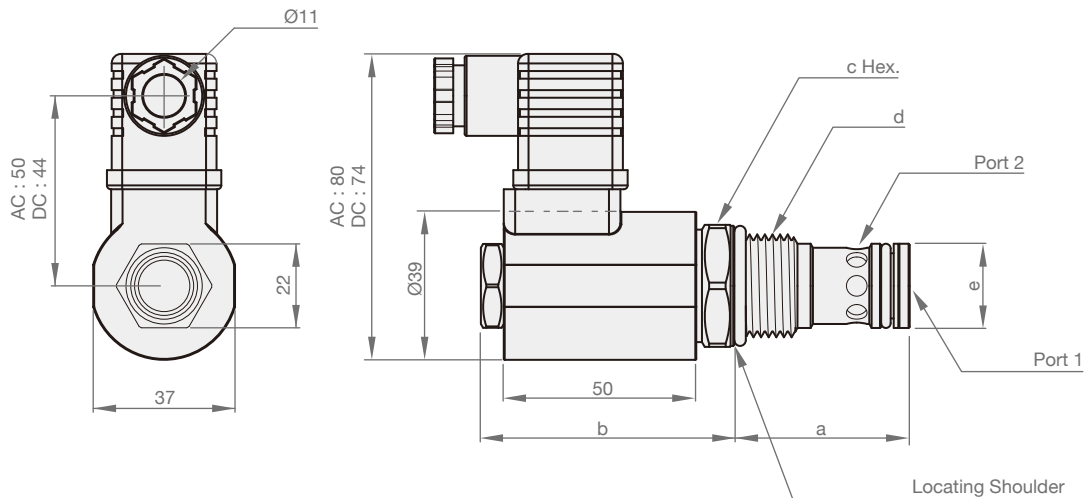
energized,
Port 1 → Port 2
de-energized,
Port 2 → Port 1

* 32cSt / 150 ssu oil at 40°C



DIMENSION

(UNIT : mm)

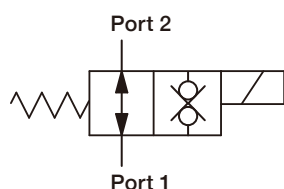


Model	a	b	c	d	e
HS-2I	28	64	22	3/4"-16UNF	12.7
JS-2I	32	64	25.4	7/8"-14UNF	15.8
LS-2I	45	64	32	1 1/16"-12UNF	22.2
PS-2I	45	65	38	1 5/16"-12UNF	28.6

HS, JS, LS, PS-2J



SYMBOLS



ORDER CODES

LS - **2J** - **16** - **D2**

1 2 3 4

1	Cavity	HS	ST082
		JS	ST102
		LS	ST122
		PS	ST162
2	Type of Valve	2J	
3	Tube Diameter	16	
4	Power Source	A1	RAC110V
		A2	RAC220V
		D1	DC12V
		D2	DC24V

MODEL SPEC.

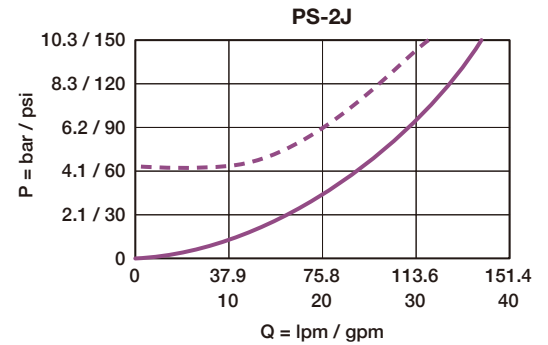
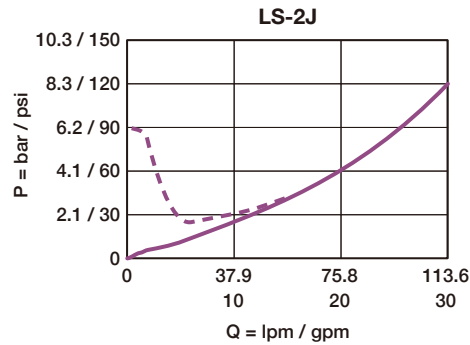
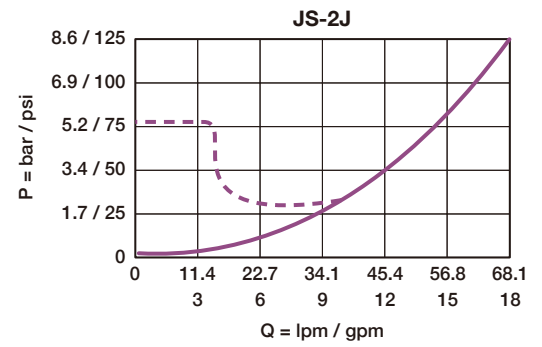
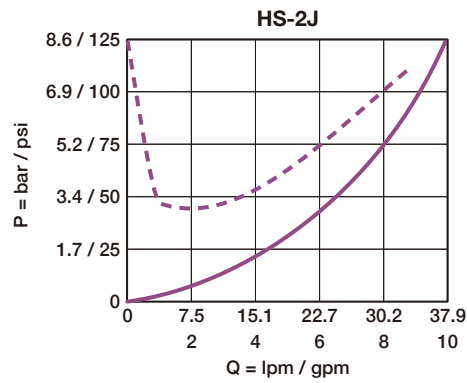
Model	Cavity	Tube Diameter	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Weight (kg)
HS-2J	ST082	16	28	250	39/51	0.41
JS-2J	ST102	16	50	250	39/51	0.43
LS-2J	ST122	16	100	250	39/51	0.56
PS-2J	ST162	16	150	250	39/51	0.67

PERFORMANCE CURVES

Typical Pressure Drop

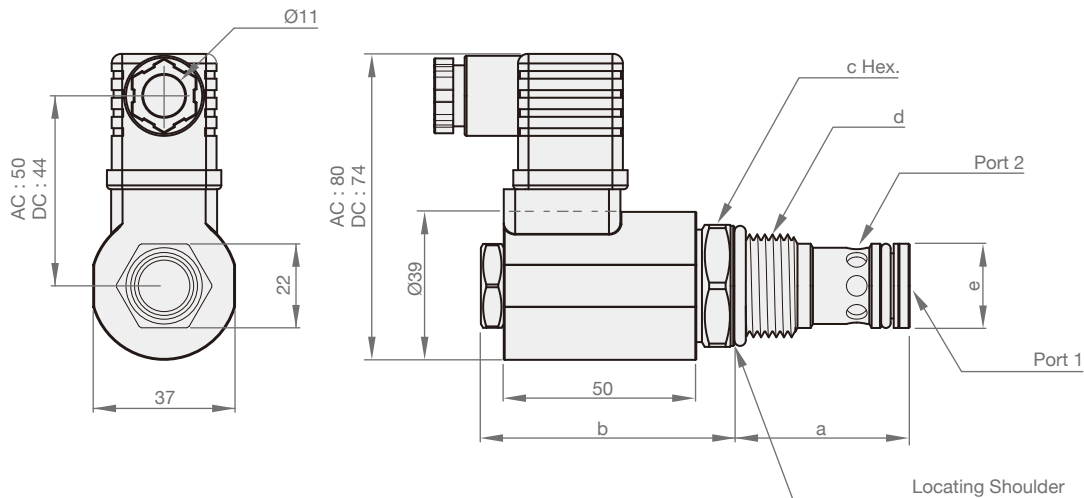
- energized,
Port 1 → Port 2
- de-energized,
Port 2 → Port 1

* 32cSt / 150 ssu oil at 40°C



DIMENSION

(UNIT : mm)

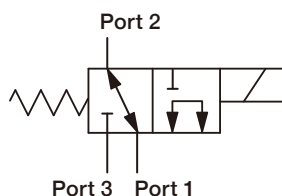


Model	a	b	c	d	e
HS-2J	28	64	22	3/4"-16UNF	12.7
JS-2J	32	64	25.4	7/8"-14UNF	15.8
LS-2J	45	64	32	1 1/16"-12UNF	22.2
PS-2J	45	65	38	1 5/16"-12UNF	28.6

HS-3A



SYMBOLS



ORDER CODES

HS - **3A** - **16** - **D2**

1 2 3 4

1	Cavity	HS	ST082
		JS	ST102
2	Type of Valve	3A	
3	Tube Diameter	16	
4	Power Source	A1	RAC110V
		A2	RAC220V
		D1	DC12V
		D2	DC24V

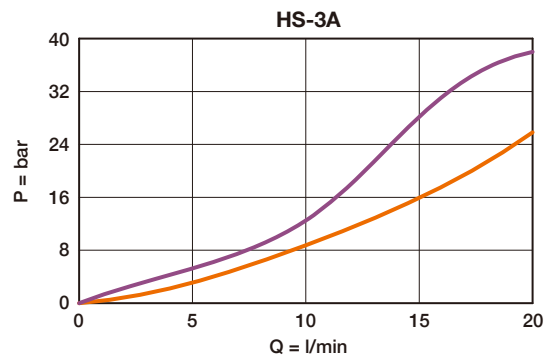
MODEL SPEC.

Model	Cavity	Tube Diameter	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Weight (kg)
HS-3A	ST082	16	15	250	39/51	0.43
JS-3A	ST102	16		250	39/51	

PERFORMANCE CURVES

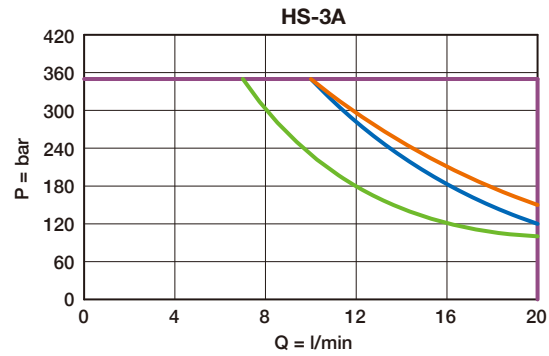
► Typical Pressure Drop

- Port 1 → Port 3
- Port 1 → Port 2
Port 2 → Port 1



► Limits of Application

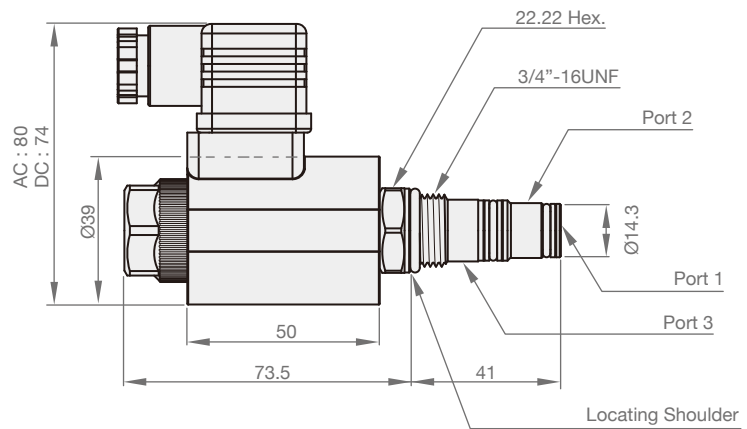
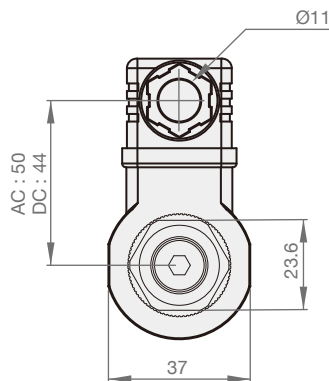
- Port 1 → Port 3
- Port 2 → Port 1
- Port 3 → Port 1
- Port 1 → Port 2



DIMENSION

(UNIT : mm)

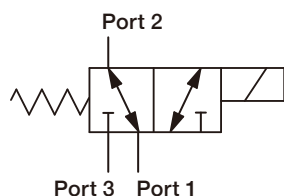
► HS-3A



HS-3X



SYMBOLS



ORDER CODES

HS - **3X** - **16** - **A2**

1 2 3 4

1	Cavity	HS	ST082
		JS	ST102
2	Type of Valve	3X	
3	Tube Diameter	16	
4	Power Source	A1	RAC110V
		A2	RAC220V
		D1	DC12V
		D2	DC24V

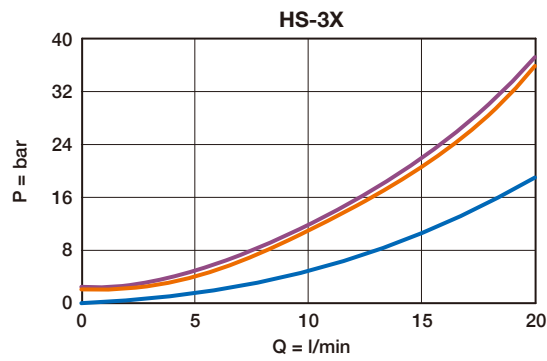
MODEL SPEC.

Model	Cavity	Tube Diameter	Capacity (l/min)	Max. Pressure (bar)	Installation Torque (Nm)	Weight (kg)
HS-3X	ST082	16	13	207	39/51	0.43
JS-3X	ST102	16	38	207	39/51	0.52

PERFORMANCE CURVES

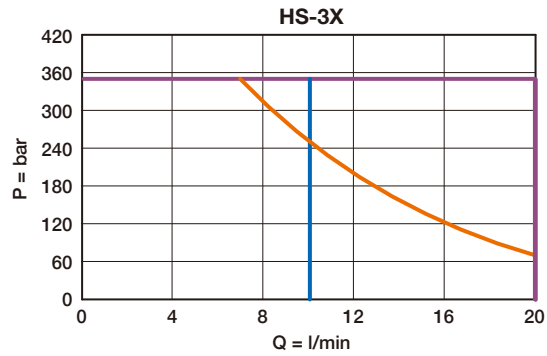
► Typical Pressure Drop

- Port 3 → Port 2
- Port 2 → Port 3
- Port 1 → Port 2
- Port 2 → Port 1



► Limits of Application

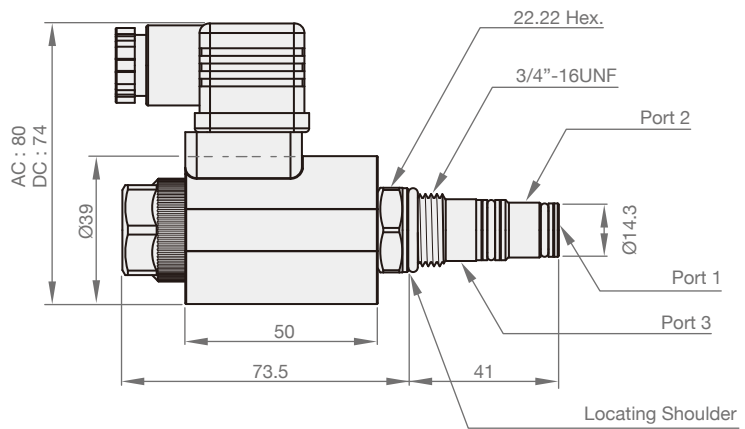
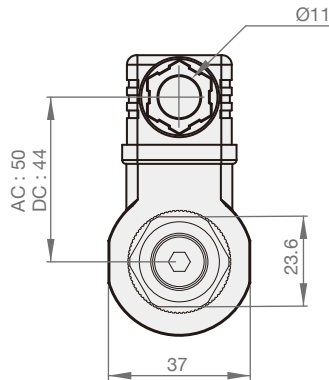
- Port 2 → Port 3
- Port 3 → Port 2
- Port 1 → Port 2
- Port 2 → Port 1



DIMENSION

(UNIT : mm)

► HS-3X

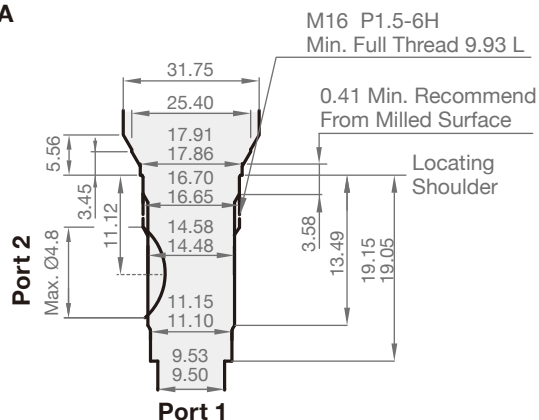


Cavities Tooling

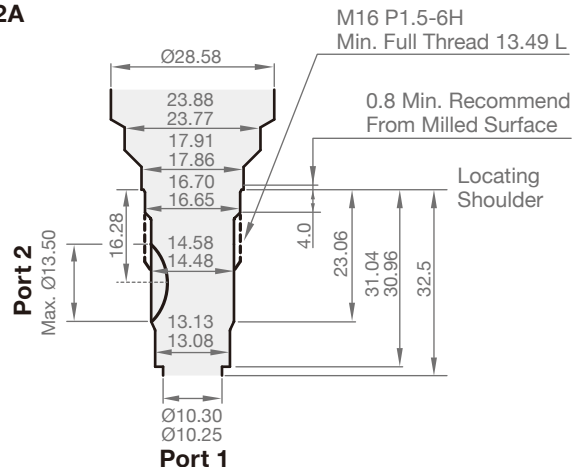
2 Port Cavities Tooling

(UNIT : mm)

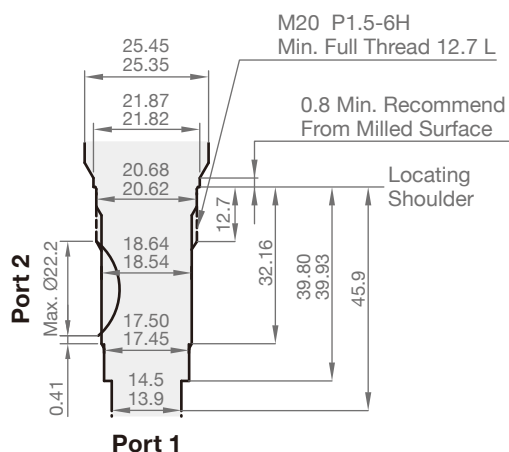
► ST8A



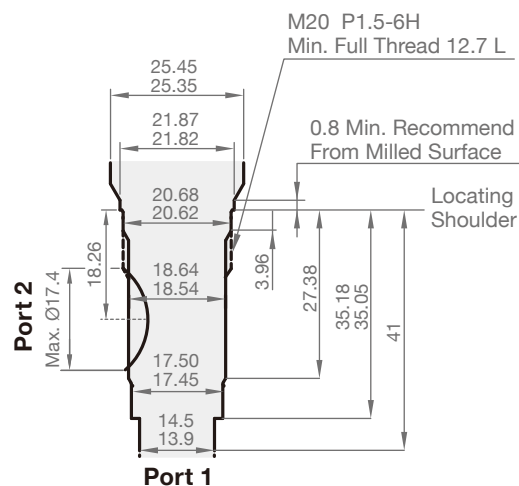
► ST162A



► ST10A

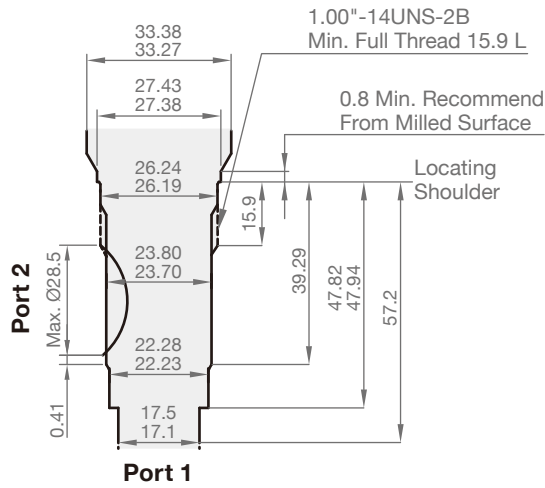


► ST13A

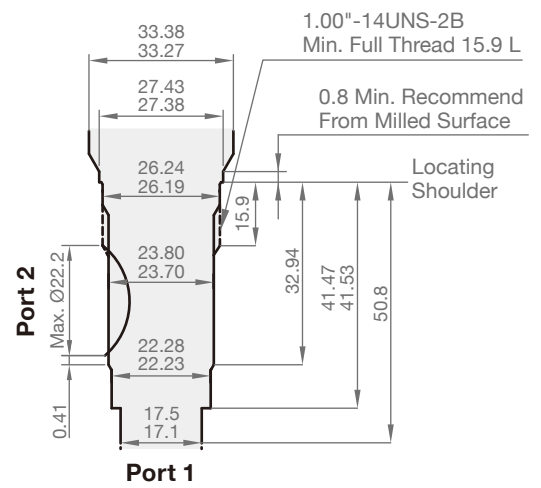


Size	Cavity
01	ST8A, ST162A
02	ST10A, ST13A
03	ST3A, ST5A
06	ST16A
08	ST18A

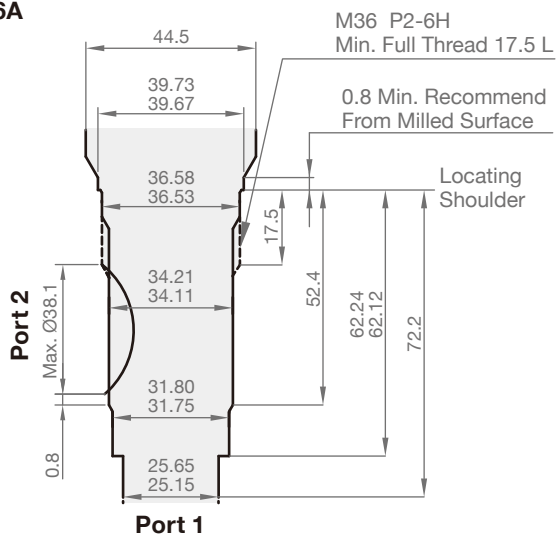
► ST3A



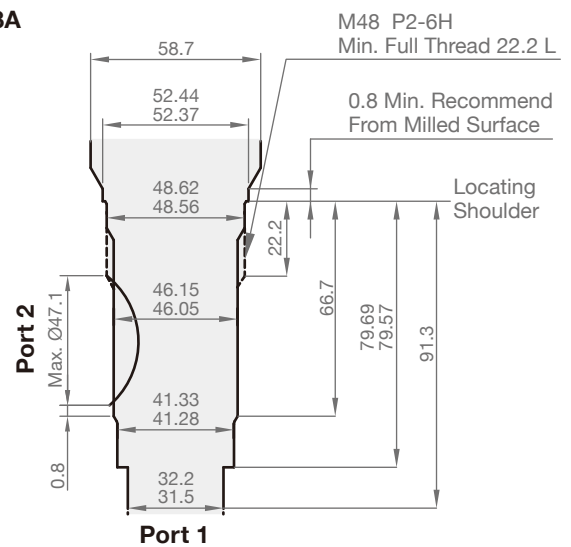
► ST5A



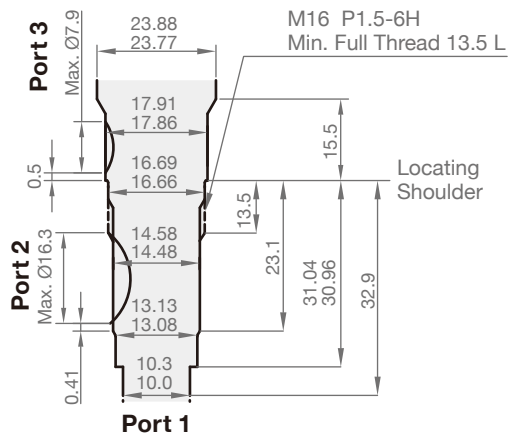
► ST16A



► ST18A

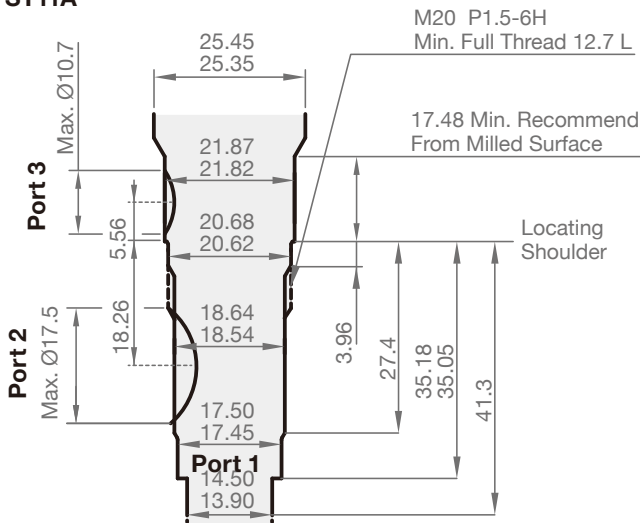


► ST163A

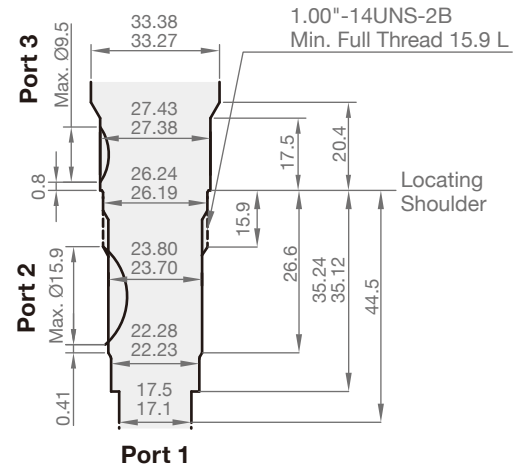


Size	Cavity
01	ST163A
02	ST11A
03	ST2A
06	ST17A
08	ST19A

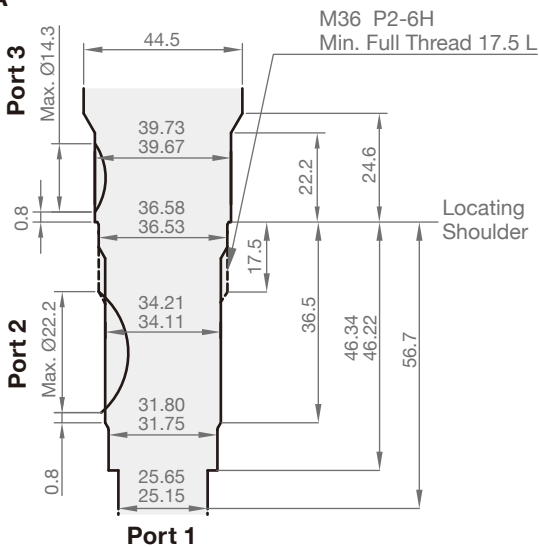
► ST11A



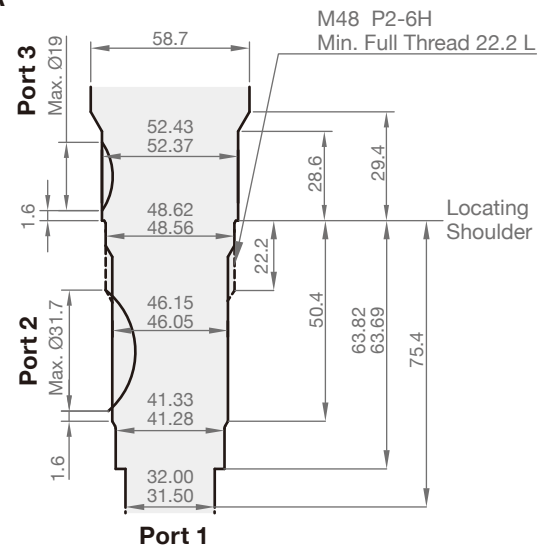
► ST2A



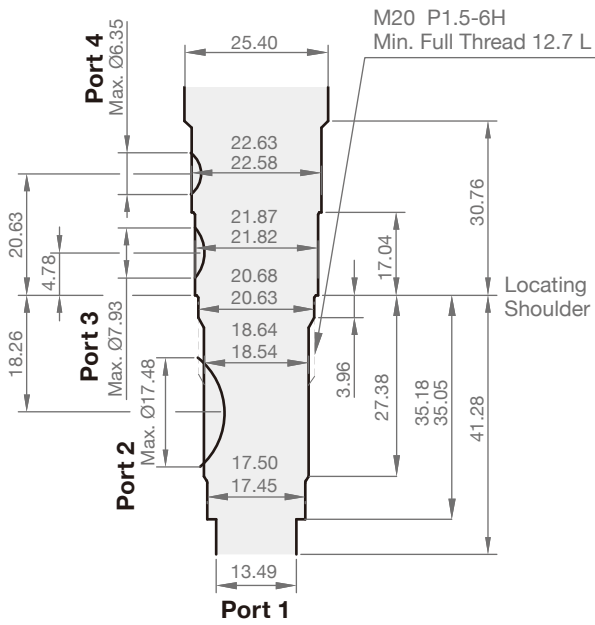
► ST17A



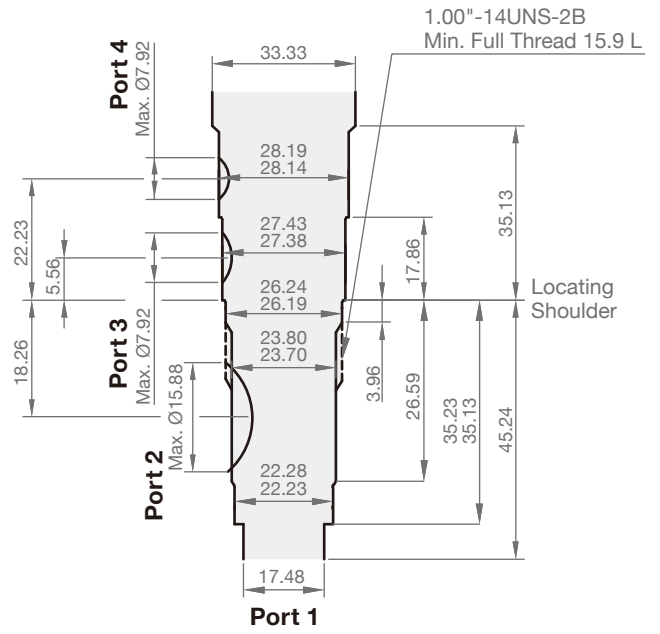
► ST19A



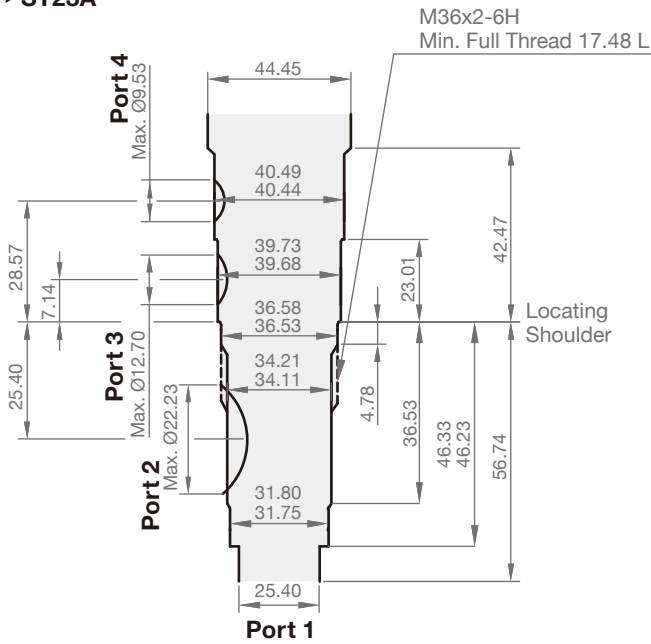
► ST21A



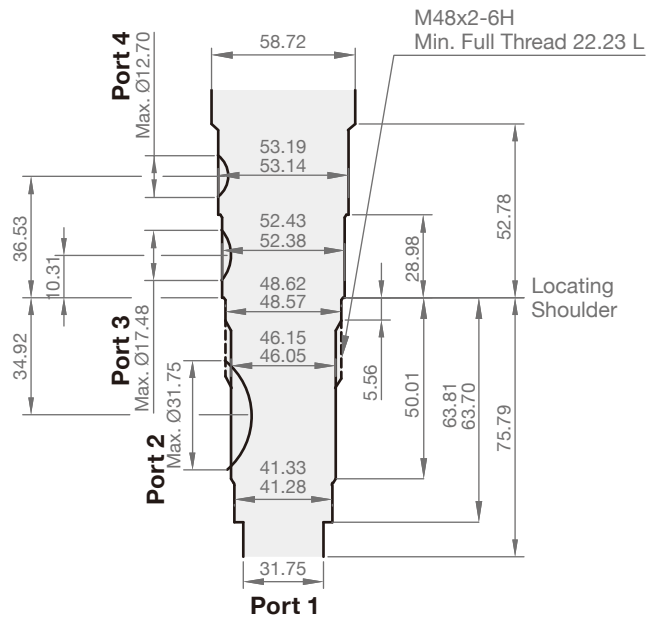
► ST22A



► ST23A



► ST24A

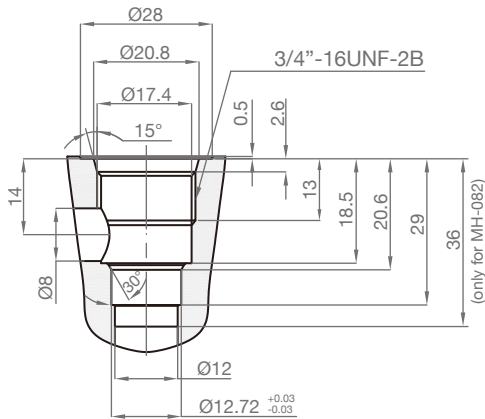


Cavities Tooling (SAE Cavity)

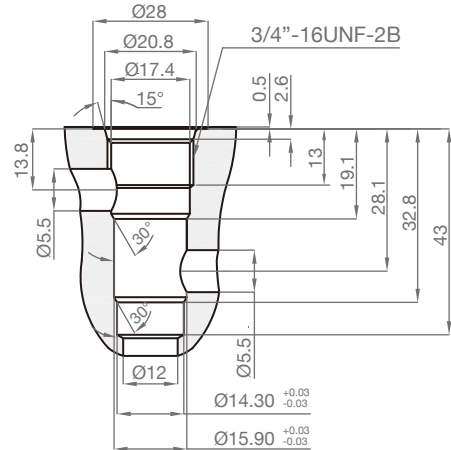
DIMENSION

(UNIT : mm)

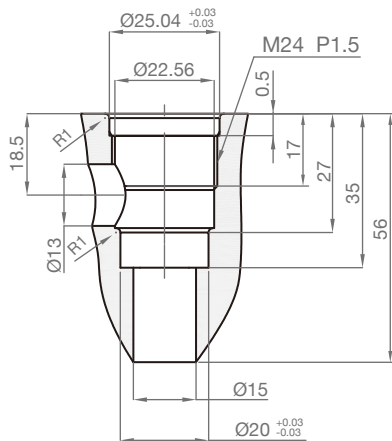
► ST82



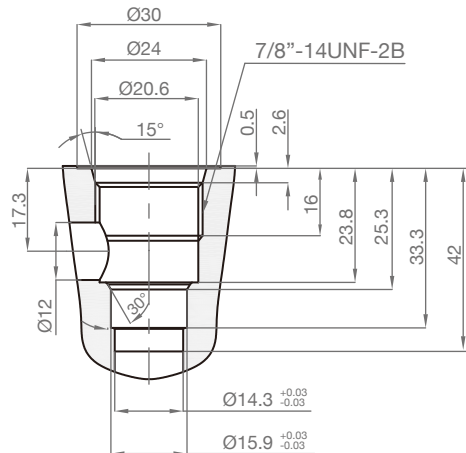
► ST83



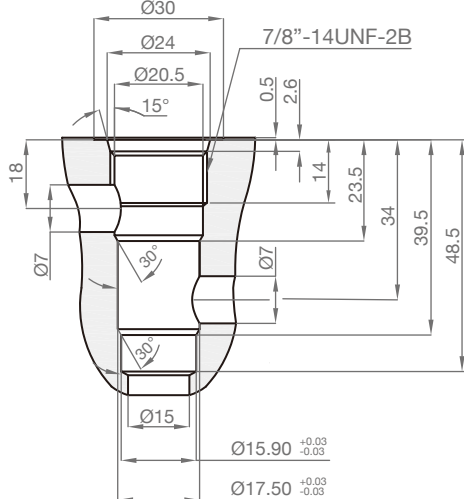
► ST092



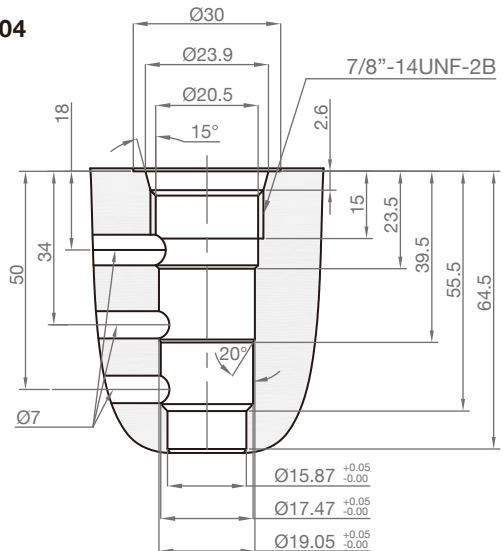
► ST102



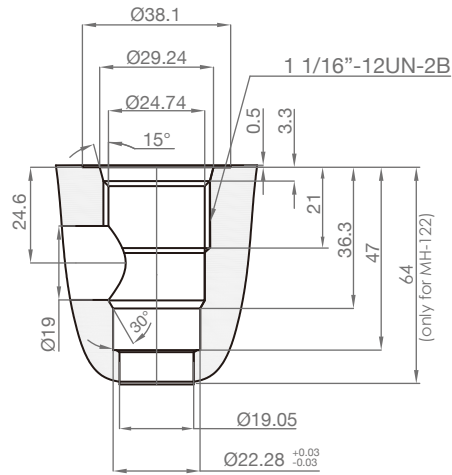
► ST103



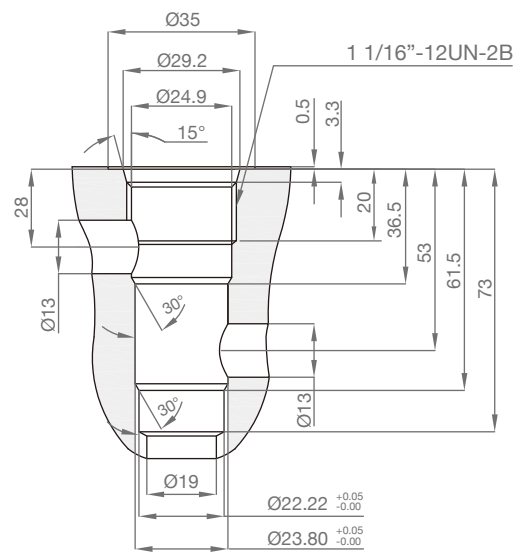
► ST104



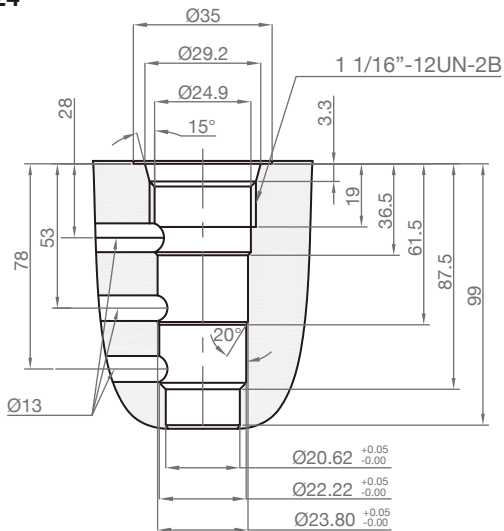
► ST122



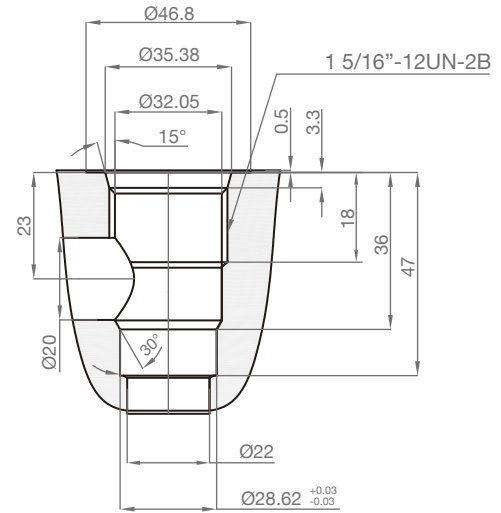
► ST123



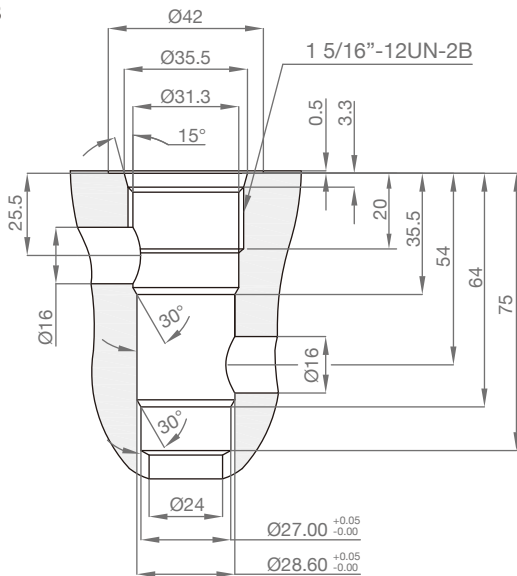
► ST124



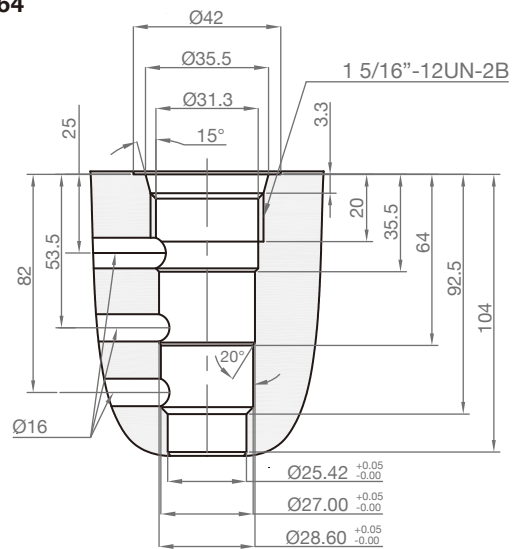
► ST162



► ST163



► ST164



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