

Series CP Pilot-Operated Check Valves

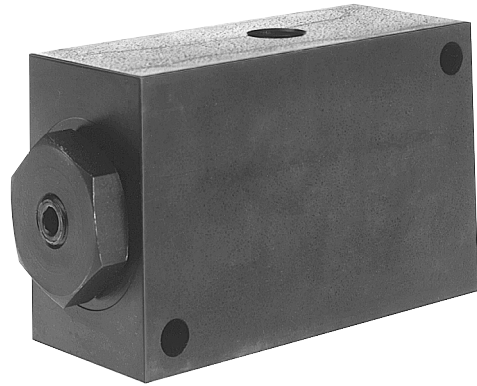
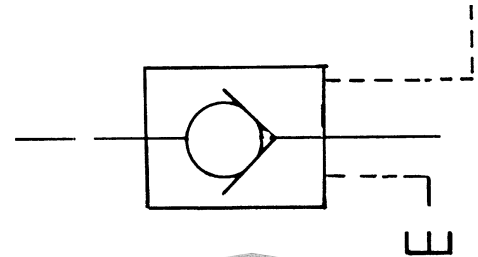
These Manatrol Check Valves permit free flow in one direction; flow in the opposite direction is blocked until pilot pressure unseats the poppet and permits flow in the opposite direction.

Choice of pilots operated by either air or oil.

For fast response without decompression, select the single-stage poppet having a 5-to-1 ratio of pilot-piston area to check-valve area.

To eliminate hydraulic shock and surge on opening, select the decompression-type two-stage poppet which has a 40-to-1 ratio of pilot-piston area to decompression-poppet area. This valve is ideal for controlling 3000-PSI line pressures by means of 80-PSI pilot pressure.

Choice of ports: 3/8" NPTF and 3/4" NPTF.



Cracking Pressure

Free Flow Direction — 5PSI (.4Bar)

Maximum Pilot Pressure

Pilot Media	Model	Maximum Pressure
Air	BACP, BACPS	80 PSI (6 Bar)
Oil	CP1200, CPS1200	1000 PSI (70 Bar)
Oil	CP600, CPS600	3000 PSI (210 Bar)

Poppet Type

Type	Material	Operating Pressure, Max. PSI (Bar)
B	Nitrile	100 (7)
N	Nylon	800 (60)
M	Solid Metal	3000 (210)

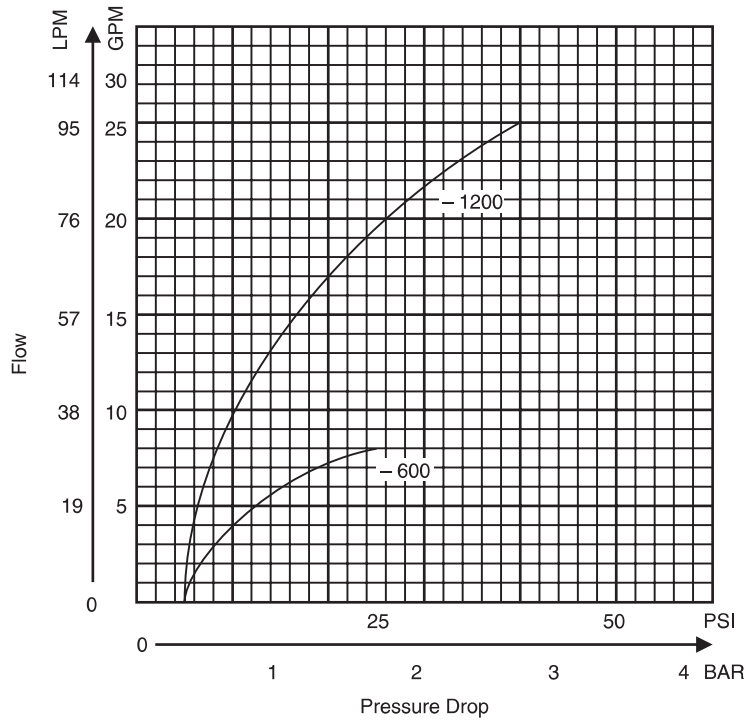
Quick Reference Data Chart

Valve Model	Flow, Max. GPM (L/M)	Pilot Piston Area To Decompression Poppet Area	Pilot Piston Area To Check Valve Area	Port Size
CP*600S5 BACP*600S5	8 (30)	—	5:1	3/8 NPTF
CP*600S40 BACP*600S40	8 (30)	40:1	5:1	3/8 NPTF
CP*1200S5 BACP*1200S5	25 (95)	—	5:1	3/4 NPTF
CP*1200S40 BACP*1200S40	25 (95)	40:1	5:1	3/4 NPTF

Note: Models CP/CPS are oil-operated pilot
Models BACP/BACPS are air-operated pilots

*Insert "S" in model code for subplate mounted valve.

Performance Data

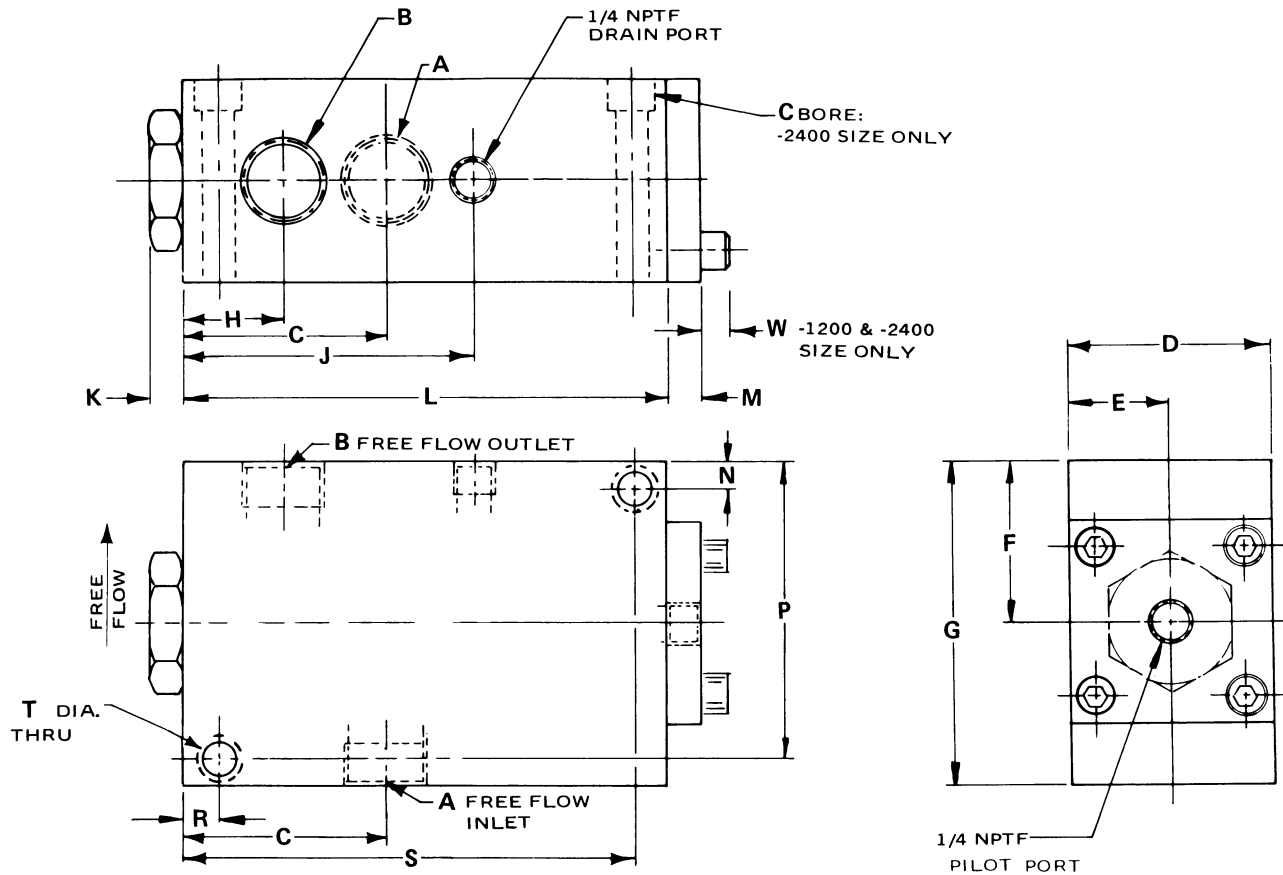


Flow vs. Pressure Drop



Dimensions

Models CP and BACP In-line, Pilot-operated Check Valves
Optional air- or oil-operated pilots

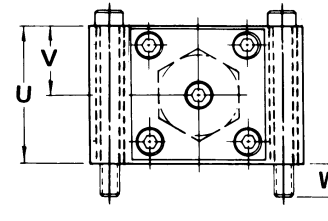
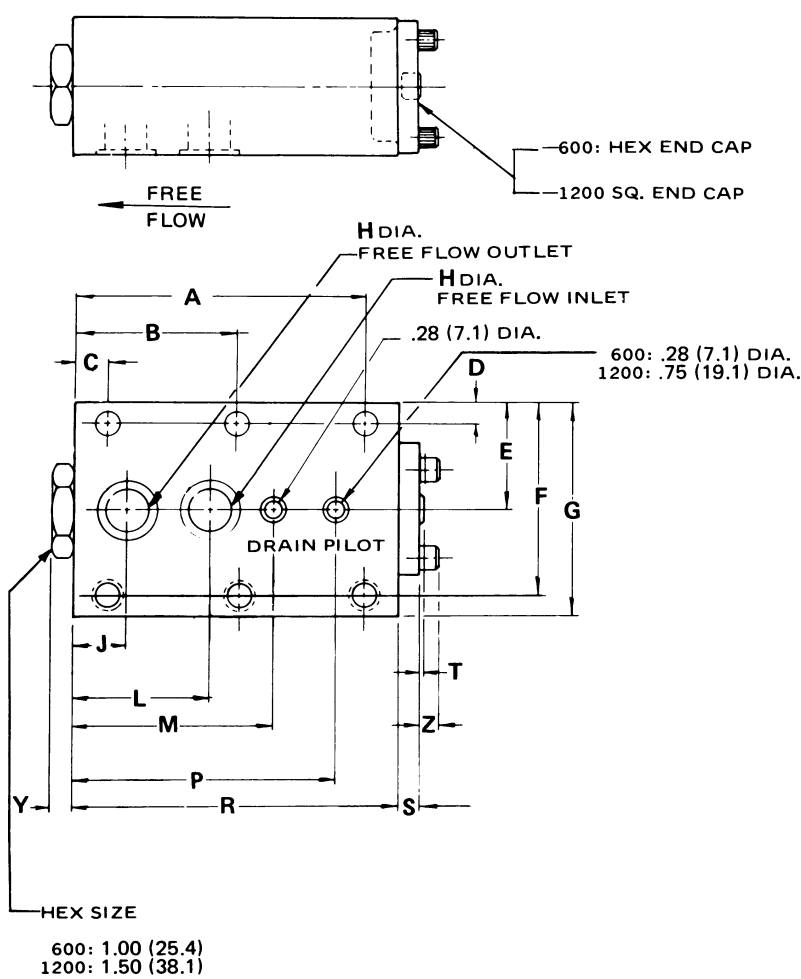


Valve Size	A&B Thread	C	D	E	F	G	H	J	K
CP600S BACP600S	3/8—18 NPTF	2.10 (53.3)	2.00 (50.8)	1.00 (25.4)	1.50 (38.1)	3.00 (76.2)	1.00 (25.4)	3.00 (76.2)	.41 (10.4)
CP1200S BACP1200S	3/4—14 NPTF	2.50 (63.5)	2.50 (63.5)	1.25 (31.8)	2.00 (50.8)	4.00 (101.6)	1.25 (31.8)	3.61 (91.2)	.42 (10.7)

Valve Size	A&B Thread	L	M	N	P	R	S	T	W
CP600S BACP600S	3/8—18 NPTF	4.75 (120.7)	.42 (10.7)	.37 (9.4)	2.62 (66.5)	.37 (9.4)	4.37 (111)	.36 (9.1)	—
CP1200S BACP1200S	3/4—14 NPTF	6.00 (152.4)	.45 (11.43)	.44 (11.2)	3.56 (90.4)	.44 (11.2)	5.56 (141.2)	.42 (10.7)	.31 (7.9)

Dimensions

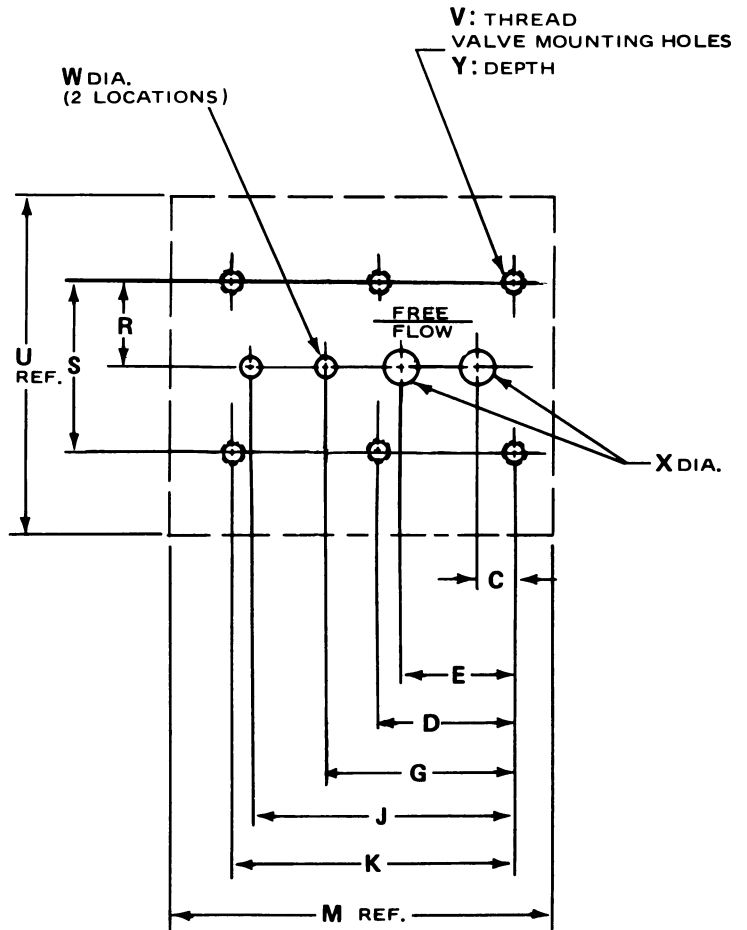
Models CP and BACP Manifold-mounted, Pilot-operated Check Valves
Optional air- or oil-operated pilots



	Valve Model	
	CPS600S BACPS600S	CPS1200S BACPS1200S
A	4.25 (108.0)	5.37 (136.4)
B	2.37 (60.2)	3.00 (76.2)
C	.50 (12.7)	.62 (15.7)
D	.34 (8.6)	.40 (10.2)
E	1.50 (38.1)	2.00 (50.8)
F	2.65 (67.3)	3.59 (91.2)
G	3.00 (76.2)	4.00 (101.6)
H	.44 (11.2)	.75 (19.1)
J	.84 (21.3)	1.00 (25.4)
L	2.10 (53.3)	2.50 (63.5)
M	3.00 (76.2)	3.69 (93.7)
P	4.00 (101.6)	5.00 (127.0)
R	4.75 (120.7)	6.00 (152.4)
S	.42 (10.7)	.45 (11.4)
T	.04 (1.0)	.04 (1.0)
U	2.00 (50.8)	2.50 (63.5)
V	1.00 (25.4)	1.25 (31.8)
W	.50 (12.7)	.50 (12.7)
Y	.31 (7.9)	.40 (10.2)
Z	—	.31 (7.9)
Weight Lb. (Kg)	7.7 (4)	16 (7)

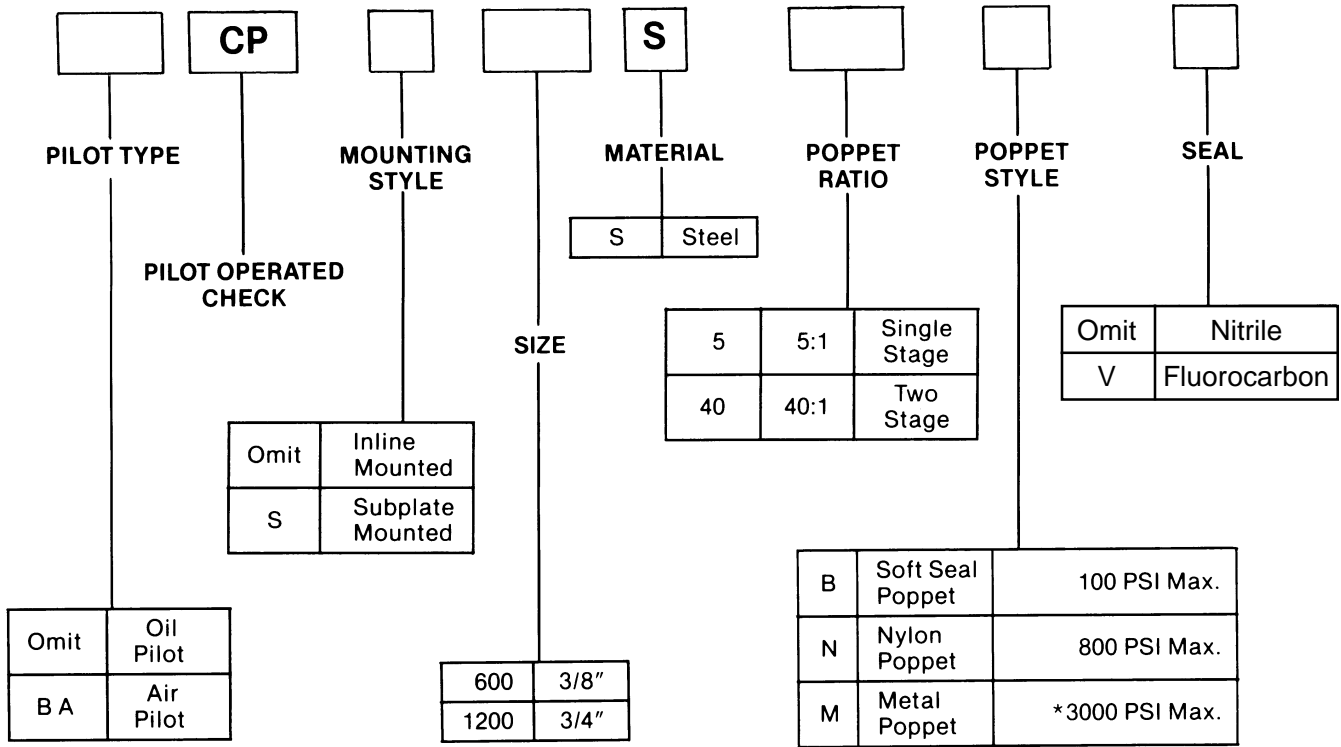
Recommended Mounting Surface

	Valve Model	
	600	1200
C	.344 (8.7)	.375 (9.5)
D	1.875 (47.6)	2.375 (60.3)
E	1.600 (40.6)	1.880 (47.8)
G	2.500 (63.5)	3.067 (77.9)
H	—	—
J	3.500 (88.9)	4.192 (106.5)
K	3.750 (95.3)	4.750 (120.7)
M	4.750 (120.7)	6.000 (152.4)
R	1.156 (29.4)	1.594 (40.5)
S	2.312 (58.7)	3.187 (81.0)
U	4.500 (114.3)	5.440 (138.2)
V	5/16-18	3/8-16
W	.281 (7.1)	.281 (7.1)
X	.469 (11.9)	.750 (19.1)
Y	.620 (15.7)	.620 (15.7)



Ordering Information

Example: "BACP600S40N" means air pilot-operated 3/8" in-line check valve, steel, two-stage 40-to-1 pilot ratio, nylon poppet for 800 PSI maximum line pressure, with nitrile seals.



*3000 PSI is the system pressure rating. The pilot pressure rating is 80 PSI for Air Pilot, 1000 PSI for Oil Pilot 1200 size and 3000 PSI for Oil Pilot 600 size.

Bolt Kits

Valve	Bolt Kit	Bolt Specification* SAE Grade 8 or Better	Bolt Torque
CPS600S BACPS600S	BK10	5/16-18 x 2-1/2"	20-25 FT.-LB.
CPS1200S BACPS1200S	BK14	3/8-16 x 3"	45-50 FT.-LB.

