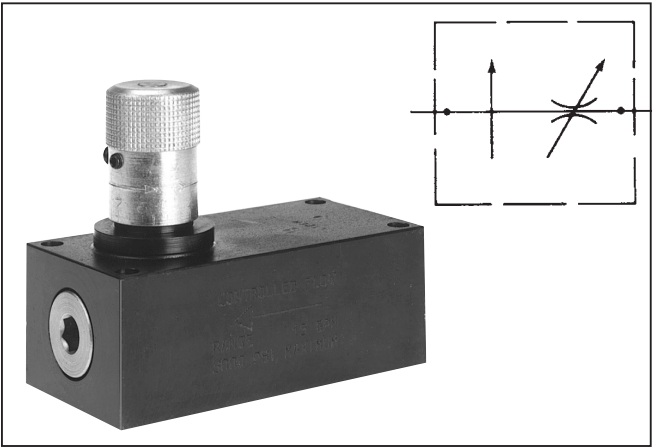


General Description

Series PC\*MS pressure compensated flow control valves are designed to regulate flow at a selected rate, then maintain this flow constant within  $\pm 5\%$  as inlet and outlet pressures vary. However, changes in fluid temperature will prevent flow from holding constant.

Series PCMS valves can be adjusted for required flows after being installed.



Features

- Available with reverse flow check.
- The exclusive “Colorflow” color-band reference scale on the valve stem is a great convenience and time-saver in setting the valve originally and in returning it to any previous setting.
- A simple set screw locks the valve on any desired setting.

Specifications

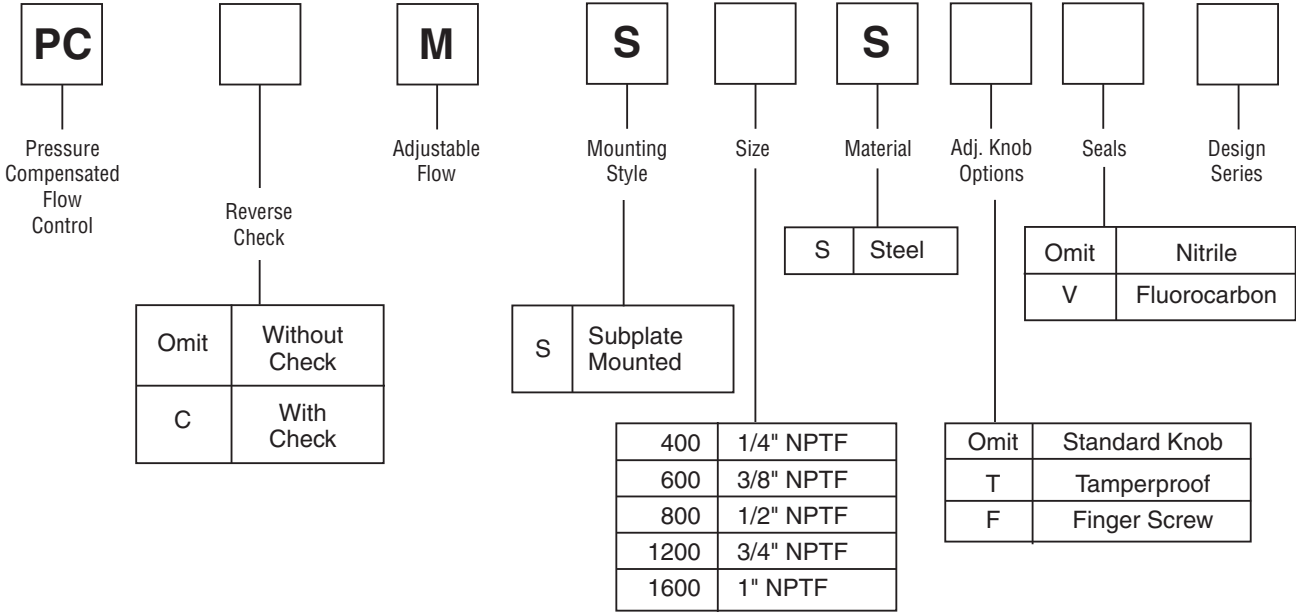
|  |  |
|--|--|
| Service App.                                 | Meter-in/meter-out and bleedoff circuits   |
| Maximum Operating Pressure                   | 210 Bar (3000 PSI)   |
| Minimum Pressure Inlet / Outlet Differential | 7 Bar (100 PSI) for sizes 1/4" and 3/8"<br>11 Bar (150 PSI) for sizes 1/2" through 1"<br>Reverse-flow check valve optional |

Flow Data

| Valve Model | Flow              |                   | Reverse Flow, max. thru check, GPM (LPM) | Pressure Drop $\Delta P$ at max. Reverse Flow thru check, PSI (Bar) | Mounting | Port Size, in. |
|-------------|-------------------|-------------------|--|---|----------|----------------|
|             | Minimum GPM (LPM) | Maximum GPM (LPM) |  |   |          |                |
| PC*MS400S   | 0.3 (1)           | 3.0 (11)          | 5 (19)                                   | 40 (3)  | Subplate | 1/4            |
| PC*MS600S   | 0.6 (2)           | 6.0 (23)          | 8 (30)                                   | 40 (3)  | Subplate | 3/8            |
| PC*MS800S   | 1/5 (6)           | 15.0 (57)         | 20 (76)                                  | 114 (8)   | Subplate | 1/2            |
| PC*MS1200S  | 2.5 (10)          | 25.0 (95)         | 35 (132)                                 | 120 (8)   | Subplate | 3/4            |
| PC*MS1600S  | 5.0 (19)          | 50.0 (189)        | 60 (227)                                 | 140 (10)  | Subplate | 1              |

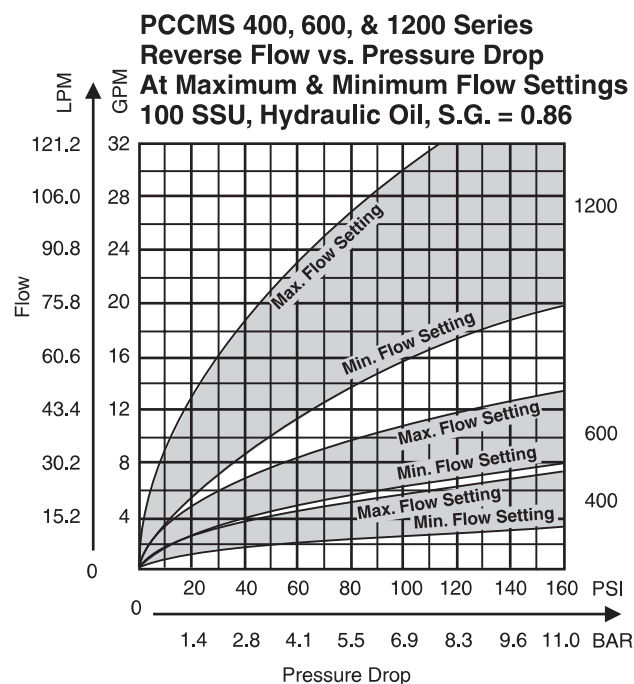
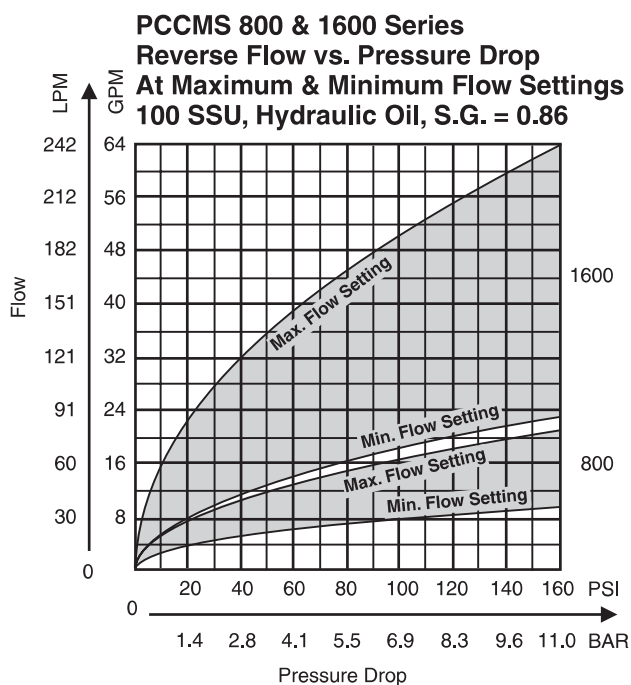
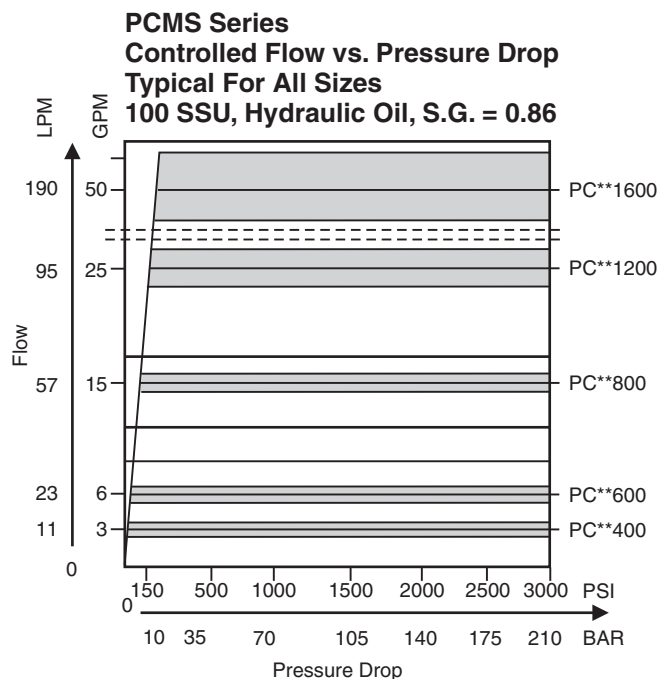
\* For optional reverse-flow check, insert “C” in model number at asterisk (\*).

D

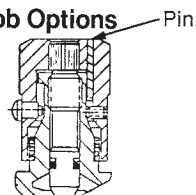


Bolt Kits

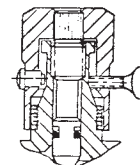
| Valve No. | Bolt Kit | Bolts<br>(SAE8 or better) | Torque<br>(ft. lb.) |
|-----------|----------|---------------------------|---------------------|
| PCMS400S  | BK02     | 1/4-20 x 1-1/2            | 15                  |
| PCMS600S  | BK04     | 1/4-20 x 1-3/4            | 15                  |
| PCMS800S  | BK60     | 1/4-20 x 2-1/4            | 15                  |
| PCMS1200S | BK25     | 5/16-18 x 2-3/4           | 30                  |
| PCMS1600S | BK46     | 5/16-18 x 3-1/4           | 30                  |



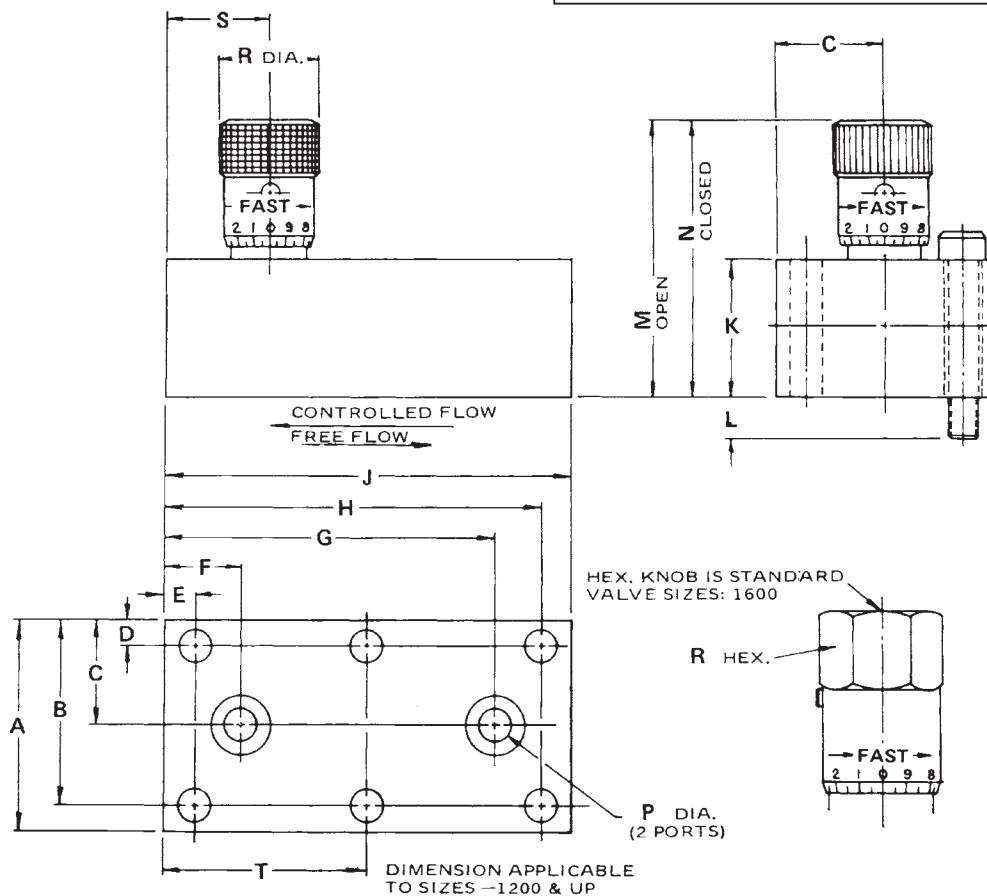
Millimeter equivalents for inch dimensions are shown in (\*\*)

**Model PCMS400S thru PCMS 1600S**Manifold mounted, pressure compensated  
Flow Control Valves**Knob Options**

Tamperproof  
Option (Code "T")  
permanently locks  
knob at desired  
flow setting by  
installing a pin  
in predrilled hole.



Finger screw  
option (Code "F")  
provides this  
thumbscrew in  
place of set screw.



| Valve Model | A              | B              | C              | D            | E             | F              | G               | H               | J               | K              | L             | M               | N               | P             | R                   | S              | T              |
|-------------|----------------|----------------|----------------|--------------|---------------|----------------|-----------------|-----------------|-----------------|----------------|---------------|-----------------|-----------------|---------------|---------------------|----------------|----------------|
| PC*MS400S   | 1.75<br>(44.5) | 1.53<br>(38.9) | .88<br>(22.4)  | .22<br>(5.6) | .25<br>(6.4)  | .62<br>(15.7)  | 2.75<br>(69.9)  | 3.12<br>(79.2)  | 3.38<br>(85.9)  | 1.12<br>(28.4) | .38<br>(9.7)  | 2.47<br>(62.7)  | 2.27<br>(57.7)  | .28<br>(7.1)  | .81 Dia.<br>(20.6)  | .84<br>(21.3)  | —              |
| PC*MS600S   | 2.00<br>(50.8) | 1.75<br>(44.5) | 1.00<br>(25.4) | .25<br>(6.4) | .25<br>(6.4)  | .66<br>(16.8)  | 3.34<br>(84.8)  | 3.75<br>(95.3)  | 4.00<br>(101.6) | 1.25<br>(31.8) | .50<br>(12.7) | 2.89<br>(73.4)  | 2.67<br>(67.8)  | .34<br>(8.6)  | 1.00 Dia.<br>(25.4) | 1.00<br>(25.4) | —              |
| PC*MS800S   | 2.25<br>(57.2) | 2.00<br>(50.8) | 1.12<br>(28.4) | .25<br>(6.4) | .25<br>(6.4)  | .75<br>(19.1)  | 3.88<br>(98.6)  | 4.38<br>(111.3) | 4.62<br>(117.3) | 1.75<br>(44.5) | .50<br>(12.7) | 4.04<br>(102.6) | 3.74<br>(95.0)  | .47<br>(11.9) | 1.19 Dia.<br>(30.2) | 1.75<br>(44.5) | —              |
| PC*MS1200S  | 2.75<br>(69.9) | 2.44<br>(62.0) | 1.38<br>(35.1) | .31<br>(7.9) | .38<br>(9.7)  | 1.00<br>(25.4) | 4.62<br>(117.3) | 5.25<br>(133.4) | 5.62<br>(142.7) | 2.25<br>(57.2) | .50<br>(12.7) | 5.06<br>(128.5) | 4.56<br>(115.8) | .66<br>(16.8) | 1.38 Dia.<br>(35.1) | 1.59<br>(40.4) | 2.81<br>(71.4) |
| PC*MS1600S  | 3.00<br>(76.2) | 2.69<br>(68.3) | 1.50<br>(38.1) | .31<br>(7.9) | .50<br>(12.7) | 1.25<br>(31.8) | 5.50<br>(139.7) | 6.25<br>(158.8) | 6.75<br>(171.5) | 2.75<br>(69.9) | .50<br>(12.7) | 6.90<br>(175.3) | 6.23<br>(158.2) | .88<br>(22.4) | 1.88 Hex.<br>(47.8) | 1.94<br>(49.3) | 3.38<br>(85.9) |

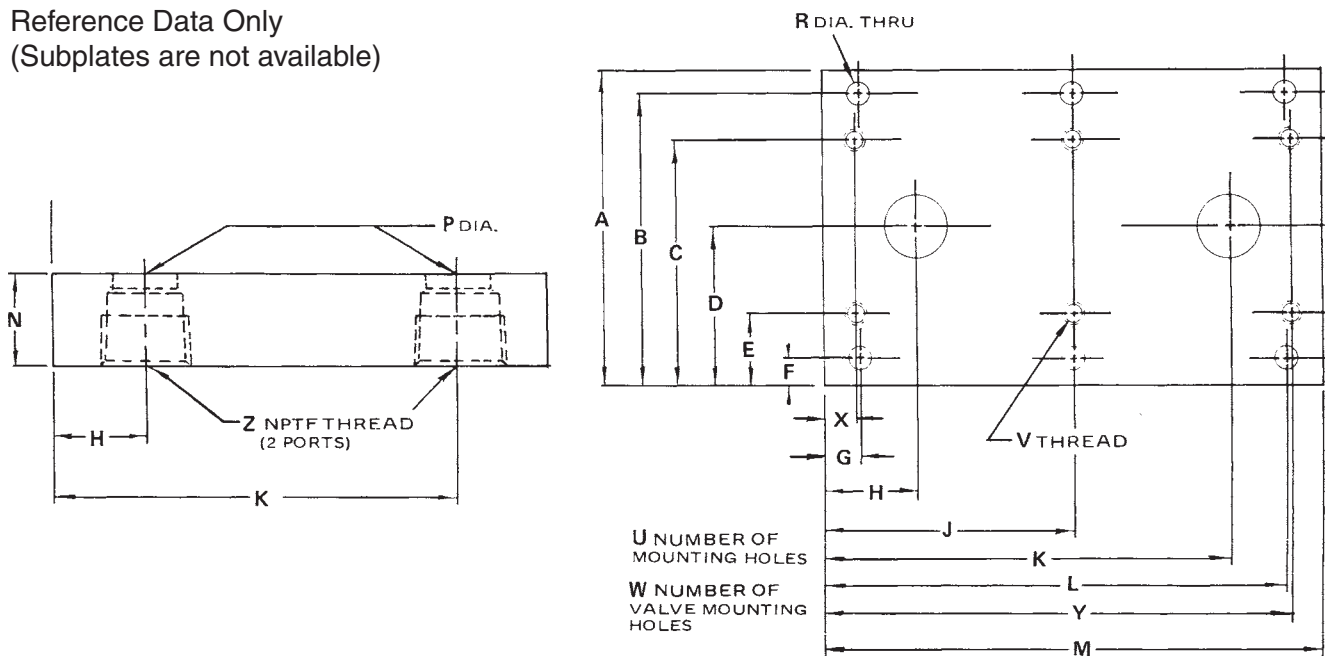
3000-D1.p65, dd

Millimeter equivalents for inch dimensions are shown in (\*\*)

## Subplate

Reference Data Only

(Subplates are not available)



| Valve Model        | PCMS400S     | PCMS600S      | PCMS800S      | PCMS 1200S    | PCMS 1600S    |
|--------------------|--------------|---------------|---------------|---------------|---------------|
| N.P.T.F. Port Size | 1/4—18       | 3/8—18        | 1/2—14        | 3/4—14        | 1—11-1/2      |
| A                  | 2.75 (69.9)  | 3.00 (76.2)   | 3.50 (88.9)   | 4.00 (101.6)  | 4.50 (114.3)  |
| B                  | 2.500 (63.5) | 2.750 (69.9)  | 3.188 (81.0)  | 3.688 (93.7)  | 4.125 (104.8) |
| C                  | 2.031 (51.6) | 2.250 (57.2)  | 2.625 (66.7)  | 3.062 (77.8)  | 3.438 (87.3)  |
| D                  | 1.375 (34.9) | 1.500 (38.1)  | 1.750 (44.5)  | 2.000 (50.8)  | 2.250 (57.2)  |
| E                  | .719 (18.3)  | .750 (19.1)   | .875 (22.2)   | .938 (23.8)   | 1.062 (27.0)  |
| F                  | .250 (6.4)   | .250 (6.4)    | .312 (7.9)    | .312 (7.9)    | .375 (9.5)    |
| G                  | .250 (6.4)   | .250 (6.4)    | .312 (7.9)    | .375 (9.5)    | .500 (12.7)   |
| H                  | .625 (15.9)  | .656 (16.7)   | .750 (19.1)   | 1.000 (25.4)  | 1.250 (31.8)  |
| J                  | —            | —             | —             | 2.812 (71.4)  | 3.375 (85.7)  |
| K                  | 2.750 (69.9) | 3.344 (84.9)  | 3.875 (98.4)  | 4.625 (117.5) | 5.500 (139.7) |
| L                  | 3.125 (79.4) | 3.750 (95.3)  | 4.312 (109.5) | 5.250 (133.4) | 6.250 (168.3) |
| M                  | 3.375 (85.7) | 4.000 (101.6) | 4.625 (117.5) | 5.625 (142.9) | 6.750 (171.5) |
| N                  | 1.125 (28.6) | 1.125 (28.6)  | 1.125 (28.6)  | 1.125 (28.6)  | 1.125 (28.6)  |
| P                  | .281 (7.1)   | .343 (8.7)    | .468 (11.9)   | .656 (16.7)   | .875 (22.2)   |
| R                  | .281 (7.1)   | .281 (7.1)    | .359 (9.1)    | .359 (9.1)    | .422 (10.7)   |
| U                  | 4            | 4             | 4             | 6             | 6             |
| V                  | 1/4—20       | 1/4—20        | 1/4—20        | 5/16—18       | 5/16—18       |
| W                  | 4            | 4             | 4             | 6             | 6             |
| X                  | .250 (6.4)   | .250 (6.4)    | .250 (6.4)    | .375 (9.5)    | .500 (12.7)   |
| Y                  | 3.125 (79.4) | 3.750 (95.3)  | 4.375 (111.1) | 5.250 (133.4) | 6.250 (168.3) |
| Z                  | 1/4—18       | 3/8—18        | 1/2—14        | 3/4—14        | 1—11-1/2      |