694400 DGMPC-3-ABK-BAK-41

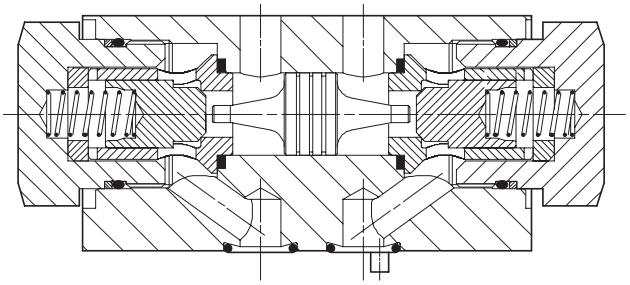
DGMPC-3-41

General Description

These valves provide pilot operated check functions in one or both service lines (A or B), the operating pilot supply coming from the opposite service line. Thus with pressure in one service line the check valve in the other service line will be open (subject to system/actuator pressures being correct for the valve area ratios).

A 3:1 area ratio of pilot piston to check valve seat is supplemented by an optional 10:1 decompression feature.

Typical Section



Model Code

DGMPC -3- (D) * [-(D)** *] - 41**

1 2 3 4 5 6 7

1 Decompression feature
D – 10:1 decompression ratio
Omit if not required

2 Function
AB – Check in line A, pilot operated from line B
D – Check in line B, pilotoperated from line A (single check model only)

3 Check valve opening/cracking pressure
K – 1 bar (14.5 psi)
M – 2,5 bar (36 psi)
N – 5 bar (72 psi)

4 Decompression feature (second function of dual models)
As in 1
Omit for single line models,and if not required for dual models

Note:"D" must be specified here, for dual models, if called for in

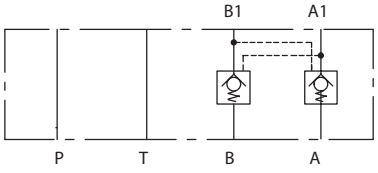
5 Second function of dual models
BA – Check in line B, pilot operated from line A
Omit for single line models

6 Check valve opening/cracking pressure (second function of dual models)
Options as in 3
Omit for single line models

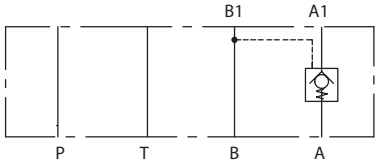
7 Design number, 41 series
Subject to change. Installation dimensions unchanged for design numbers 40 to 49 inclusive.

Functional Symbols

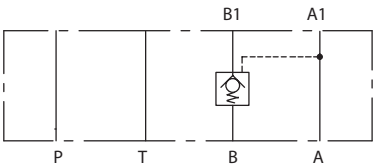
DGMPC-3-(D)AB*-(D)BA*



DGMPC-3-(D)AB*



DGMPC-3-(D)BA*



Operating Data

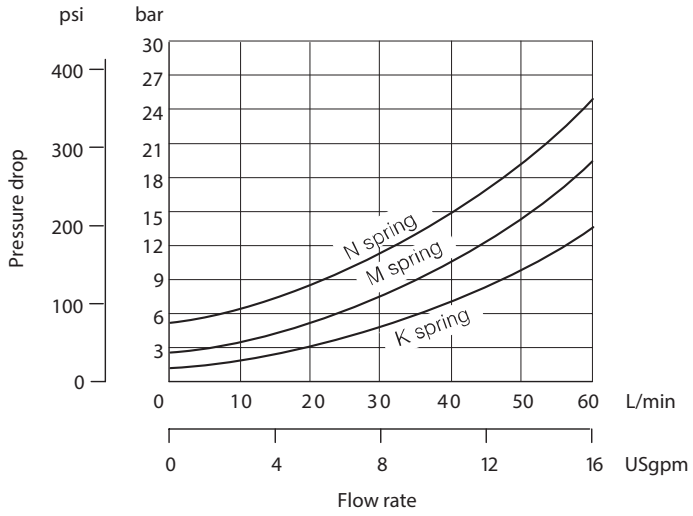
Maximum flow rate	60 L/min (16 USgpm)
Maximum operating pressure	315 bar (4500 psi)
Pressure drops	See graphs
Mounting position	Optional
Mass approximate	0.8 kg (1.81 lb)

Performance Data

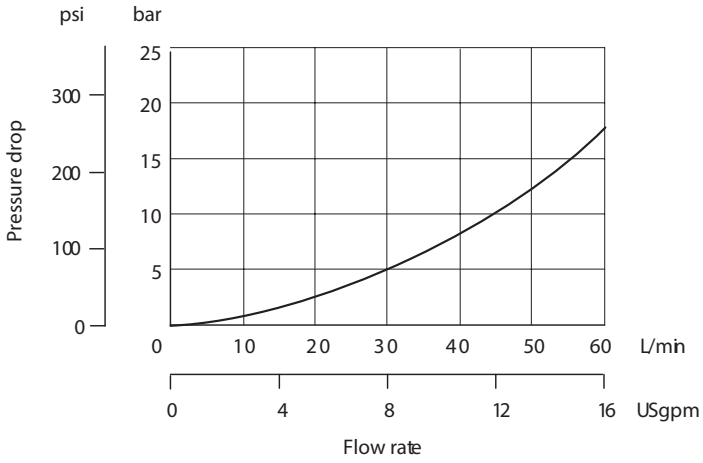
Pressure Drop Data

Typical performance with mineral oil at 21 cSt (102 SUS) and at 50°C(122°F)

Pressure drop: flow path A1 to A or B1 to B (no pilot-pressure operation)



Pressure drop: flow path A to A1, or B to B1 with check valve pilot-operated fully open



u For other viscosities, see “Further Information”.

Pilot Pressures

Pilot area ratios:

Main check valve 3:1

Decompression poppet 10:1

Use applicable ratio and opening/ cracking pressure to calculate pilot pressure to open valve element, applied to the following formulae:

To open valve or decompression poppet in line A:

$$\text{Pressure at B1} = \frac{p_A + p_C - p_{A1}}{\text{Area ratio factor}} + p_{A1}$$

To open valve or decompression poppet in line B:

$$\text{Pressure at A1} = \frac{p_B + p_C - p_{B1}}{\text{Area ratio factor}} + p_{B1}$$

Where:

p_A = Pressure at A

p_C = Cracking/opening pressure

p_{A1} = Pressure at A1

p_B = Pressure at B

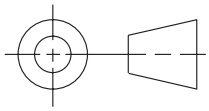
p_{B1} = Pressure at B1

A =
B =
A1=
B1= } Service line location; see functional symbols

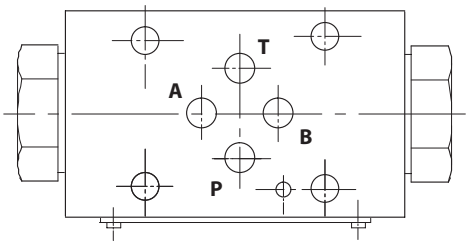
Leakage

Less than 0,25 ml/min (0.015 in3/min) at 250 bar (3625 psi).

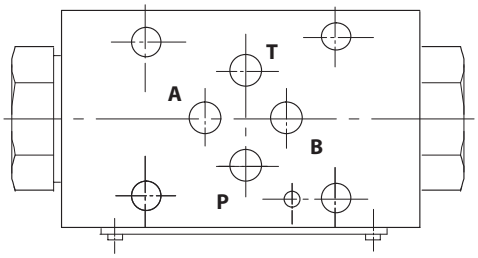
Installation Dimensions in mm (inches)

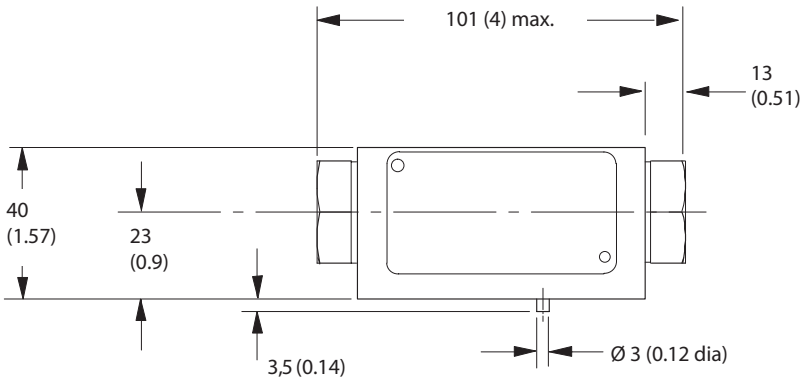


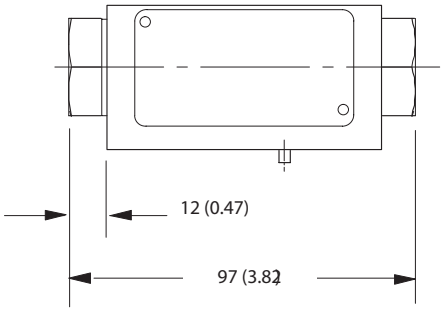
DGMPC-3-(D)AB*-(D)BA*-41



DGMPC-3-(D)AB*-41

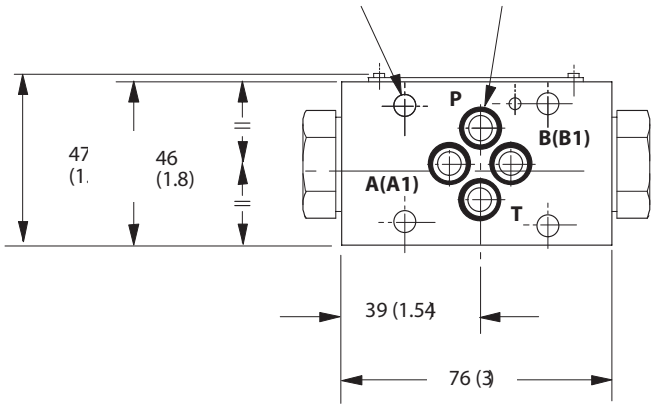






4 holes through: Ø 5,3 (0.21 dia)

4 off "0" seals supplied for this mounting face



DGMPC-3-(D)BA*-41