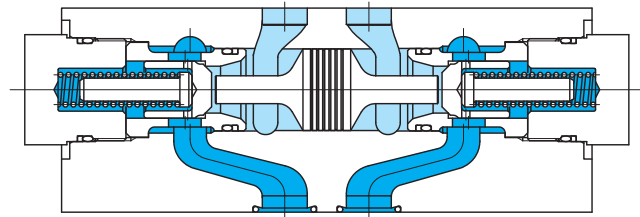


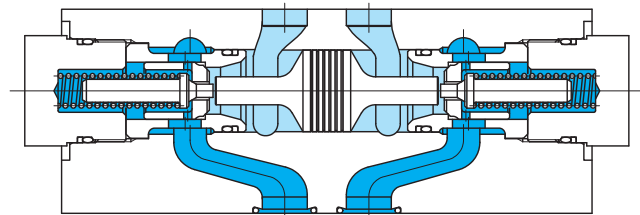
Pilot operated check valves TGMPC-5, 50 series



Standard Type (Single Type)

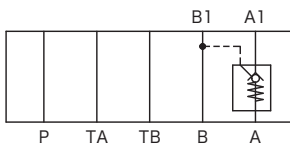


Decompression Type (Double Type)

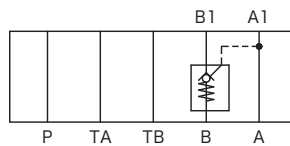


Functional Symbols

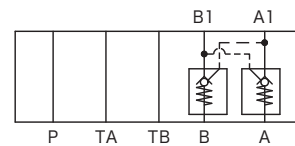
TGMPC-5-(D)AB*



TGMPC-5-(D)BA*



TGMPC-5-(D)AB*-(D)BA*



Model Code

(F3)-TGMPC-5-(D)AB*-[(D)BA*]-50

1 2 3 4 5 6 7 8 9 10

- 1 Hydraulic fluid
Omit: mineral oil based fluid, water-glycol based fluid
F3: phosphate ester
- 2 Pilot operated check valves
- 3 Mounting dimensions
5: ISO 4401-05
- 4 Decompression function
Omit: no decompression function
D: with decompression function
- 5 Control line
AB: control of A line check valve by B line pilot pressure
BA: control of B line check valve by A line pilot pressure

- 6 Cracking pressure
K: 0.1 MPa
M: 0.25 MPa
N: 0.5 MPa
 - 7 Decompression function
See 4 (however if 'D' is specified under 4, 'D' must also be specified under 7).
 - 8 Control line
BA: control of B line check valve by A line pilot pressure
 - 9 Cracking pressure
See 6.
 - 10 Design no.
- } for double check valve

Specifications

- Max. Working Pressure: 31.5 MPa
- Max. Flow: 120 L/min
- Piston: Seat Area Ratio
Standard: 3:1
Decompression type: 20:1
- Decompression type is effective in reducing shock when the charged oil compression capacity by the check valve is large.

Specifications

- Pilot pressure required to open the valve (P_{B1}, P_{A1})
To open A line check valve
 P_{B1} (B1 line pressure) $> (P_A + P_C - P_{A1})/f_a + P_{A1}$
To open B line check valve
 P_{A1} (A1 line pressure) $> (P_B + P_C - P_{B1})/f_a + P_{B1}$

Where:

- P_A : A pressure
- P_B : B pressure
- P_{A1} : A1 pressure
- P_{B1} : B1 pressure
- P_C : cracking pressure
- f_a : surface area ratio
(standard type: $f_a = 3$, decompression type: $f_a = 20$)

Characteristics Curve (at 20 mm²/s, 50°C) (typical examples)

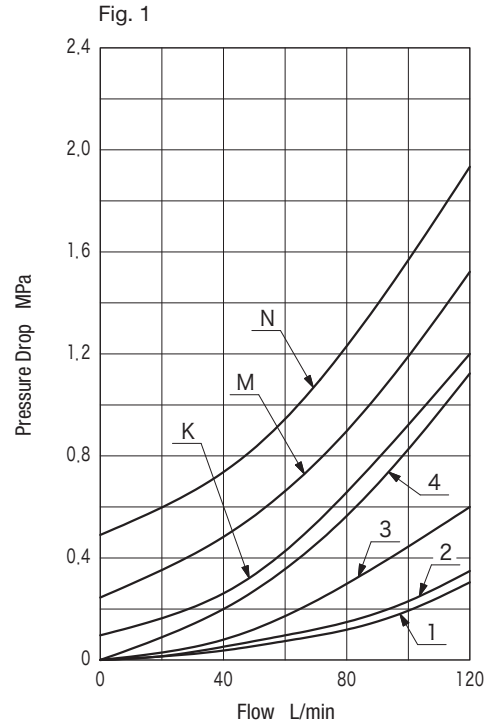
■ Pressure Drop Characteristics

Overall valve pressure loss is the sum of pressure losses through each port - P, T, A, and B - as shown in Table 1. Seek values from Fig. 1.

Table 1

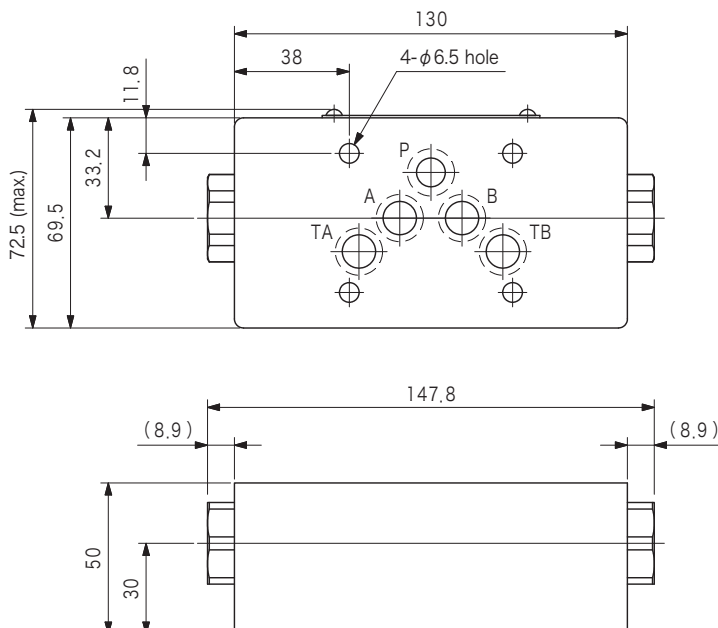
Model Code	Flow Port							
	P	T	A				B	
TGMPC-5-(D) AB*-50	1	2	-	4	▲	3	-	-
TGMPC-5-(D) BA*-50	1	2	3	-	-	-	4	▲
TGMPC-5-(D) AB*-(D) BA*-50	1	2	-	4	▲	-	4	▲

▲: Select K, M, N curve according to cracking pressure.

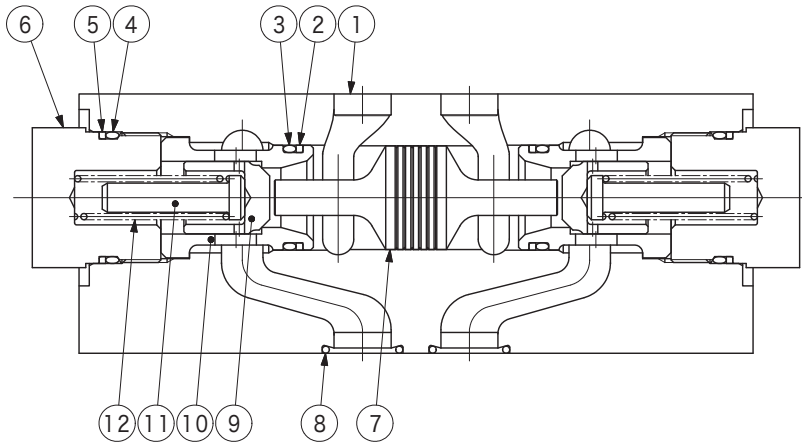


Dimensions

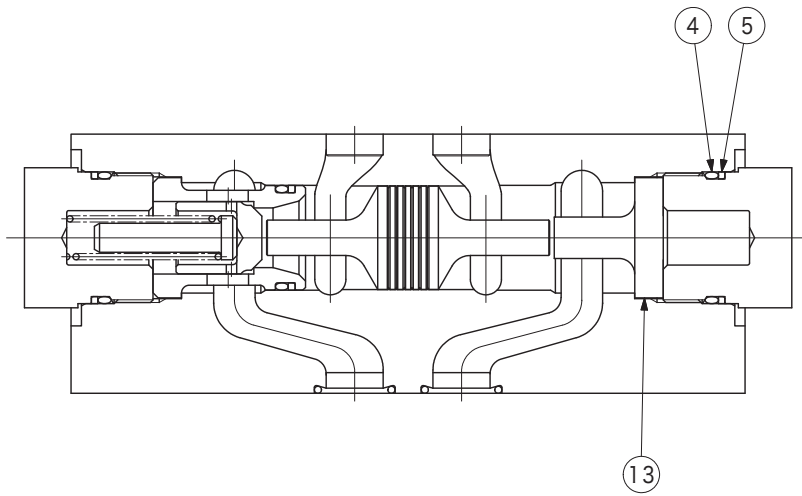
TGMPC-5-(D) AB*-[(D) BA*] -50 (single and double type pilot operated check valve) Weight: 2.9 kg
TGMPC-5-(D) BA*-50 (single type pilot operated check valve)



Construction



Double type



Single type

No.	Name	Part No.	Standard	Qty	
				Single Type	Double Type
2	Backup ring	40025925	MS28774-017	1	2
3	O-ring	007901717	AS568-017 (NBR, Hs70)	1	2
4	O-ring	007902017	AS568-020 (NBR, Hs70)	2	2
5	Backup ring	40025055	—	2	2
8	O-ring	007901419	AS568-014 (NBR, Hs90)	5	5

⑫ Spring

Code	Part No.
K	40025929
M	40025930
N	40025931