Pressure relief modules TGMC(2)-5, 50 series

Single Type

Double Type (Crossport Relief Valve)

Functional Symbols

TGMC-5-PT

TGMC-5-AT

TGMC-5-BT

TGMC2-5-AT-BT

TGMC2-5-AB-BA
Model Code

(F3)-TGMC (2)-5-*W-(B*-W)-50

1. Hydraulic fluid
   Omit: mineral oil based fluid, water-glycol based fluid
   F3: phosphate ester

2. Relief function
   TGMC: single relief valve
   TGMC2: double relief valve

3. Mounting dimensions
   S: ISO 4401-05

4. Control line
   PT: P → T relief (single relief valve only)
   AT: A → T relief
   BT: B → T relief (single relief valve only)
   AB: A → B relief

5. Pressure adjustment range
   A: (0.4)~5 MPa
   B: (0.4)~10 MPa
   F: (0.4)~20 MPa
   G: (0.4)~31.5 MPa
   (The minimum pressure differs depending on the flow. Refer to the characteristics curves.)

6. Adjuster
   W: hex socket adjustment screw
   H: knob

7. Control line (for TGMC2)
   BT: B → T (double relief valve only)
   BA: B → A (double crossport relief valve only)

8. Pressure adjustment range
   See 5.

9. Adjuster
   See 6.

10. Design no.

Specifications

• Max. Working Pressure: 31.5 MPa
• Max. Flow: 120 L/min
• Max. Pilot Flow: 700 cm³/min
  (50°C, 20 mm²/s at setting pressure 31.5MPa and 120 L/min)
• Pressure Override: below 3.1 MPa
  (fluid capacity 5L, supply flow 120 L/min, 3.5MPa to 31.5MPa. Rise time about 150 ms.)

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

- Pressure Drop Characteristics
- Minimum Pressure Characteristics
- Pressure Override Characteristics

Model Code | Curve No.
--- | ---
TGMC-5-AT | 1
TGMC-5-BT | 2
TGMC2-5-AT-BT | 3
TGMC-5-PT | 4
TGMC2-5-AB-BA | 5

*For minimum pressure of system, tank back pressure is added to these values.
*Not applicable to double crossport relief valve (AB-BA type)
*Example is case where pressure adjustment range is set at maximum.
*For characteristics of system, tank back pressure is added to these values.

TOKYO KEIKI INC.
TGMC-5-PT-*W-50 (single relief valve)  Weight: 2.9 kg

Pressure adjustment screw
Hex socket bolts 4 (5/32") across flats,
turn CW to increase pressure

Locknut
wrench, 13 (1/2") across flats

TGMC-5-AT-*W-50 (single relief valve)  Weight: 2.9 kg

Pressure adjustment screw
Hex socket bolts 4 (5/32") across flats,
turn CW to increase pressure

Locknut
wrench, 13 (1/2") across flats
### Dimensions

**TGMC-5-BT-#W-50 (single relief valve)**  
Weight: 2.9 kg

![Diagram of stack valves dimensions](diagram.png)

**Pressure Adjuster**

“H” Type  
Weight: +0.1 kg (compared to W type)

![Diagram of pressure adjuster](diagram.png)

<table>
<thead>
<tr>
<th>Model Code</th>
<th>a</th>
</tr>
</thead>
<tbody>
<tr>
<td>TGMC2-5-AB—#H—BA—#H—50</td>
<td>41</td>
</tr>
<tr>
<td>TGMC(2)-5 except for above</td>
<td>44</td>
</tr>
</tbody>
</table>
**Dimensions**

TGMC2-5-AT-#W-BT-#W-50 (double relief valve)    Weight: 3.6 kg

Pressure adjustment screw
Hex socket bolts, 4 (5/32") across flats,
turn CW to increase pressure (both ends)

Locknut
wrench, 13 (1/2") across flats

"A" line adjustment

"B" line adjustment

TGMC2-5-AB-#W-BA-#W-50 (double crossport relief valve)    Weight: 3.6 kg

Pressure adjustment screw
Hex socket bolts, 4 (5/32") across flats,
turn CW to increase pressure (both ends)
Note: Two sets of parts, 1~11, 13~15 are used for double relief and double crossport relief valves.

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Part No.</th>
<th>Standard</th>
<th>Qty</th>
<th>Single Type</th>
<th>Double Type</th>
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</thead>
<tbody>
<tr>
<td>4</td>
<td>O-ring</td>
<td>007911717</td>
<td>AS568-117 (NBR, Hs70)</td>
<td>1</td>
<td>2</td>
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<td>5</td>
<td>Backup ring</td>
<td>40025061</td>
<td>MS28774-117</td>
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<td>2</td>
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<td>6</td>
<td>O-ring</td>
<td>007911117</td>
<td>AS568-111 (NBR, Hs70)</td>
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<tr>
<td>7</td>
<td>Backup ring</td>
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<td>MS28774-111</td>
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<td>2</td>
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<td>12</td>
<td>O-ring</td>
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<td>AS568-014 (NBR, Hs90)</td>
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</table>

(3) Spring

<table>
<thead>
<tr>
<th>Code</th>
<th>Part No.</th>
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<tbody>
<tr>
<td>A</td>
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<tr>
<td>B</td>
<td>40025064</td>
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<tr>
<td>F</td>
<td>40025065</td>
</tr>
<tr>
<td>G</td>
<td>40025066</td>
</tr>
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</table>

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