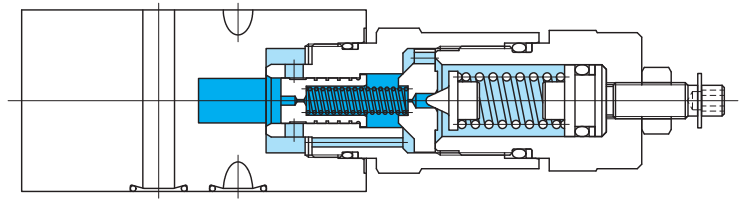
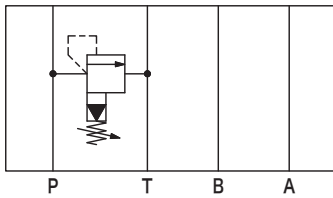


Pressure relief valves TGMC(2)-3, 50 series

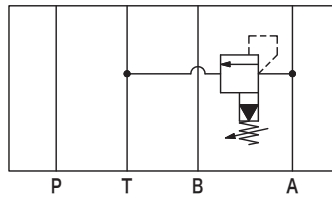


Functional Symbols

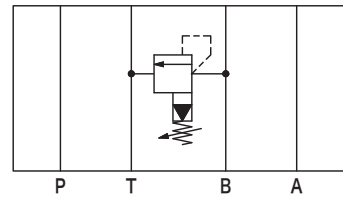
TGMC-3-PT



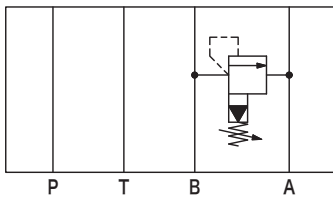
TGMC-3-AT



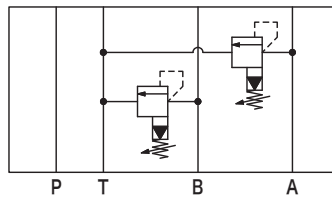
TGMC-3-BT



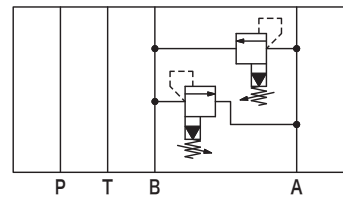
TGMC-3-BA



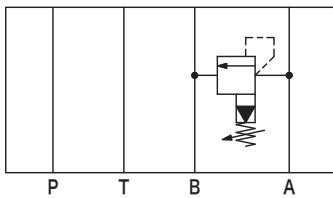
TGMC2-3-AT-BT



TGMC2-3-AB-BA



TGMC-3-AB



Model Code

(F3)-TGMC(2)-3-**(L)-*W-(B*-*W)-50

1 2 3 4 5 6 7 8 9 10 11

- 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
3: ISO 4401-03
- 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
BA: B → A relief (single relief valve only)
- 5 Adjuster position: See "Dimensions".
- 6 Pressure adjustment range
A: (0.3)~5 MPa
B: (0.3)~10 MPa

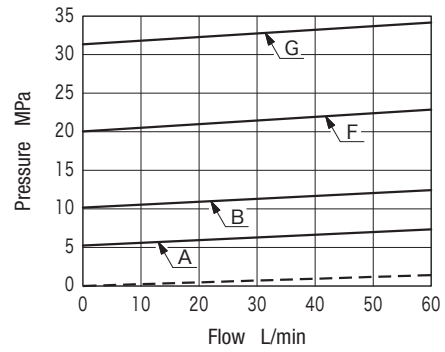
- F: (1)~20 MPa
G: (5)~31.5 MPa
(The minimum pressure differs depending on the flow. Refer to the characteristics curves.)
- 7 Adjuster
W: hex socket adjustment screw
H: knob
- 8 Control line (for TGMC2)
BT: B → T relief (double relief valve only)
BA: B → A relief (double crossport relief valve only)
- 9 Pressure adjustment range } for TGMC2
See 6.
- 10 Adjuster }
See 7.
- 11 Design no.

Specifications

- Max. Working Pressure: 31.5 MPa
- Max. Flow: 60 L/min

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

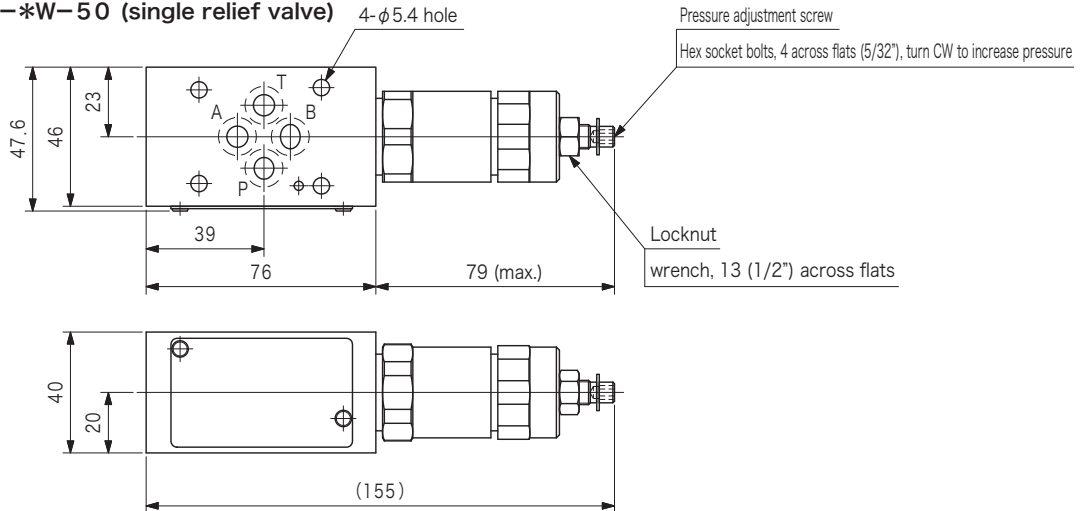
■ Pressure Override Characteristics



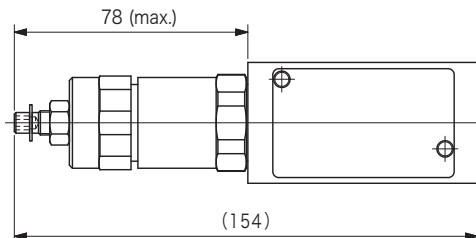
- Example is case where pressure adjustment range is set at maximum.
- Dashed line represents minimum pressure characteristics. (Adjustment screw fully loosened)
- For characteristics of system, tank back pressure is added to these values.

Dimensions

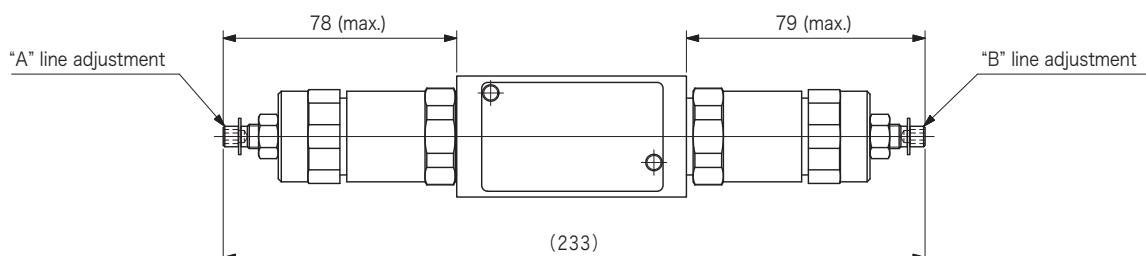
- TGMC-3-PT-*W-50 (single relief valve) Weight: 1.3 kg
 TGMC-3-BT-*W-50 (single relief valve)
 TGMC-3-ABL-*W-50 (single relief valve)
 TGMC-3-ATL-*W-50 (single relief valve)



- TGMC-3-AT-*W-50 (single relief valve) Weight: 1.3 kg
 TGMC-3-PTL-*W-50 (single relief valve)
 TGMC-3-BAL-*W-50 (single relief valve)
 TGMC-3-BTL-*W-50 (single relief valve)

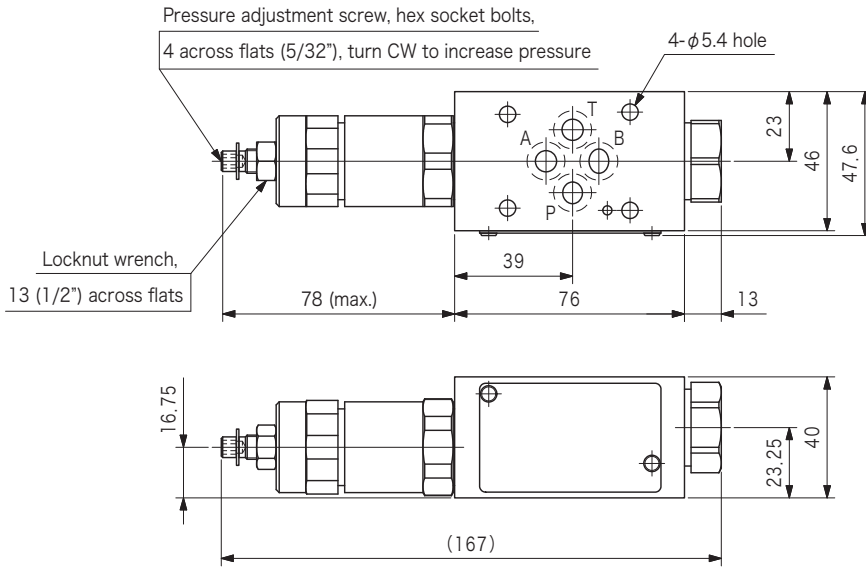


- TGMC2-3-AT-*W-BT-*W-50 (double relief valve) Weight: 2.5 kg

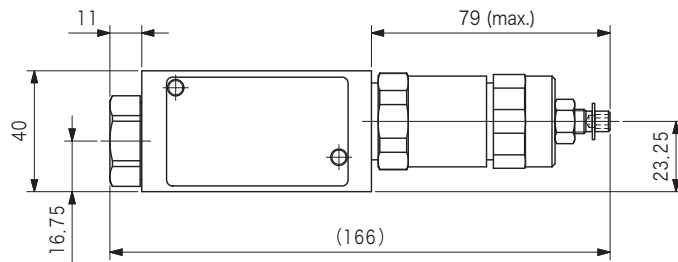


Dimensions

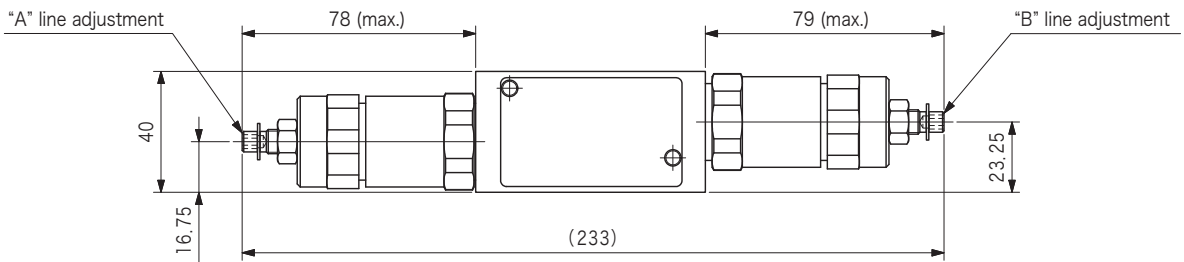
TGMC-3-AB-*W-50 (single relief valve) Weight: 1.3 kg



TGMC-3-BA-*W-50 (single relief valve) Weight: 1.3 kg

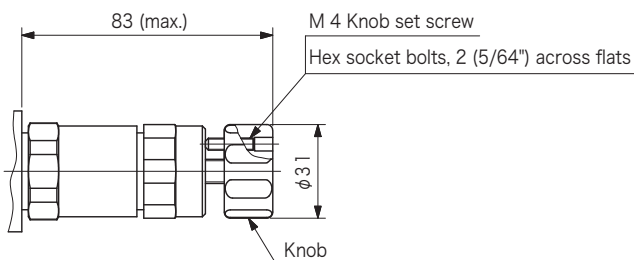


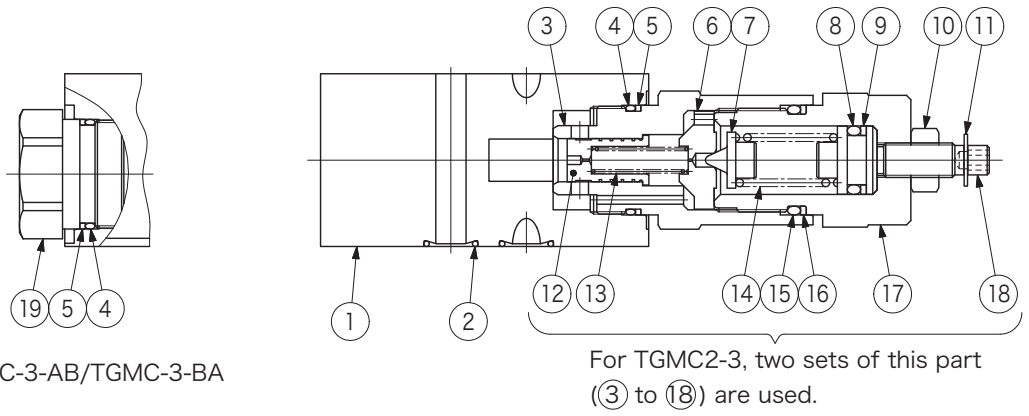
TGMC2-3-AB-*W-BA-*W-50 (double crossport relief valve) Weight: 2.5 kg



Pressure Adjuster (Option)

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



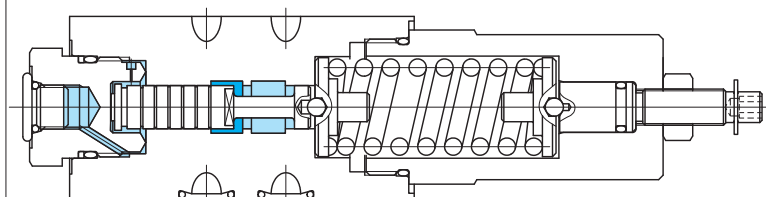


No.	Name	Part No.	Standard	Qty		
				TGMC-3-*T TGMC-3-**L	TGMC-3-AB TGMC-3-BA	TGMC2-3
2	O-ring	007901219	AS568-012 (NBR, Hs90)	4	4	4
4	O-ring	007902017	AS568-020 (NBR, Hs70)	1	2	2
5	Backup ring	40025055	—	1	2	2
8	O-ring	007911117	AS568-111 (NBR, Hs70)	1	1	2
9	Backup ring	40025057	MS28774-111	1	1	2
15	O-ring	007911717	AS568-117 (NBR, Hs70)	1	1	2
16	Backup ring	40025061	MS28774-117	1	1	2

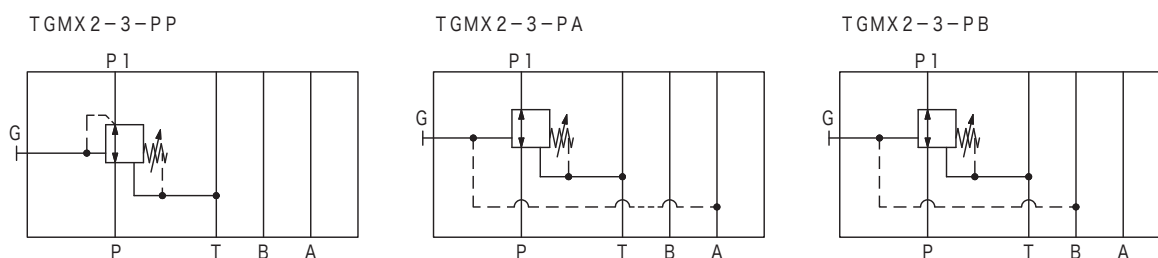
⑭ Spring

Code	Part No.
A	40025063
B	40025064
F	40025065
G	40025066

Pressure reducing valves TGMX2-3, 50 series



Functional Symbols



Model Code

(F3)-TGMX2-3-P*(L)-*W-G-50

1 2 3 4 5 6 7 8 9 10

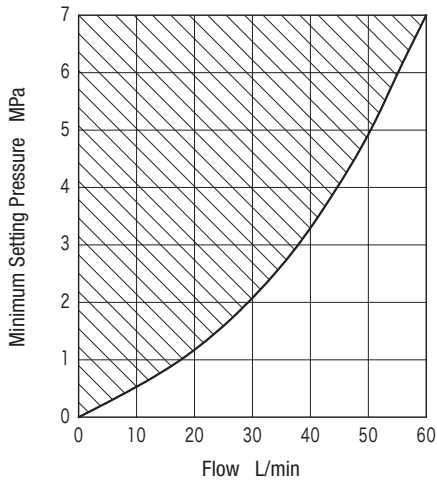
- | | |
|--|---|
| <p>1 Hydraulic fluid
Omit: mineral oil based fluid, water-glycol based fluid
F3: phosphate ester</p> <p>2 Pressure reducing valve</p> <p>3 Mounting dimensions
3: ISO 4401-03</p> <p>4 Control port
P: P port</p> <p>5 Pilot line
P: P line
A: A line
B: B line</p> <p>6 Adjuster position
Omit: B port side
L: A port side (option)</p> | <p>7 Pressure adjustment range
A: (0.3)~3 MPa
B: (0.35)~7 MPa
C: (1)~14 MPa
F: (2)~25 MPa
(The minimum pressure differs depending on the flow. Refer to the characteristics curves.)</p> <p>8 Adjuster
W: hex socket adjustment screw
H: knob</p> <p>9 Piping connection port: for gauge port (G)
G: G1/8 O-ring seal (for all models)</p> <p>10 Design no.</p> |
|--|---|

Specifications

- Max. Working Pressure: 31.5 MPa
- Max. Flow: 60 L/min

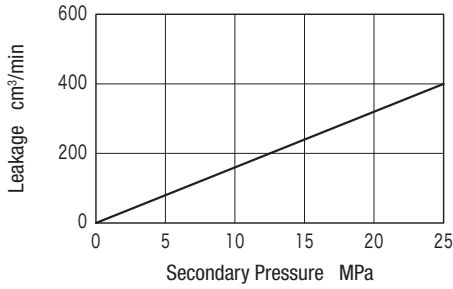
Characteristics Curve (at 20 mm²/s, 50°C) (typical examples)

■ Minimum Setting Pressure



- Indicates min. setting pressure over working flow, regardless of primary pressure.
- Max. flow is restricted for setting pressures below 7 MPa. (use in shade region of graph)

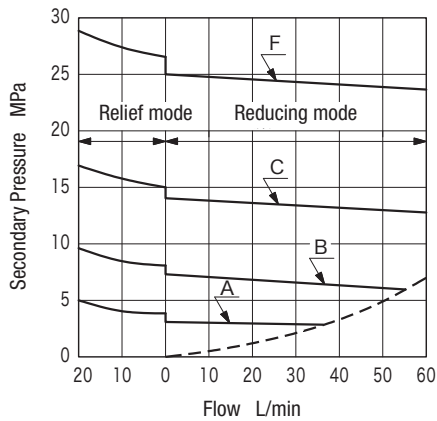
■ Leakage/Secondary Pressure Characteristics



- In order to maintain secondary pressure, flow exceeding leakage is required for the primary side.

■ Pressure Override Characteristics

For TGMX2-3-P*

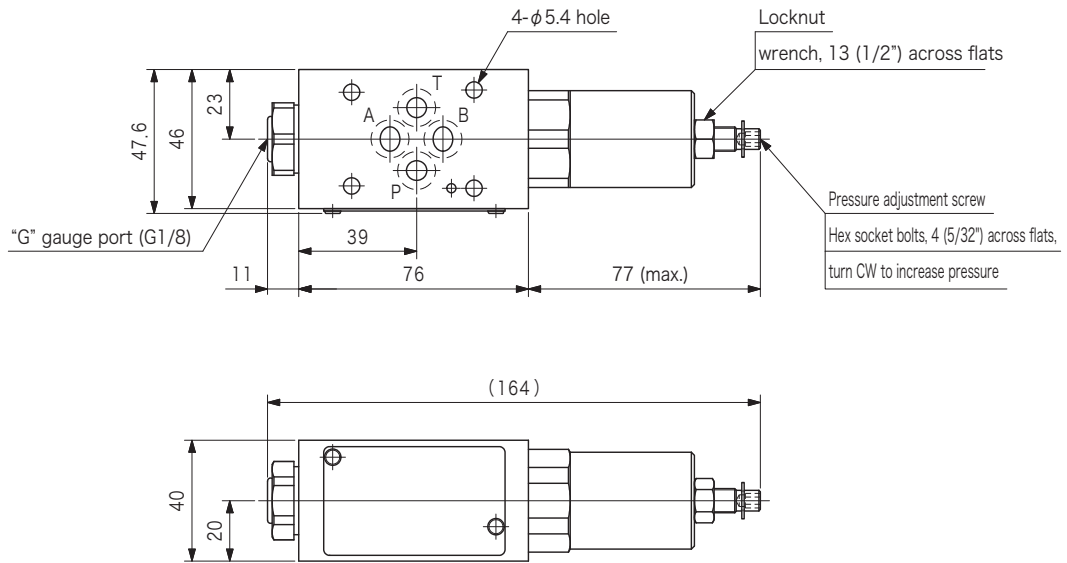


- Example is case where pressure adjustment range is set at maximum.
- If secondary pressure exceeds setting pressure, valve will function in relief mode as shown in the figure.
- For characteristics of system, tank back pressure is added to these values.

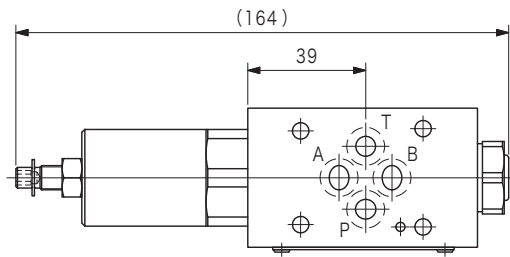
Min. setting pressure curve

Dimensions

TGMX2-3-P*-W-G-50 (reducing valve) Weight: 1.3 kg



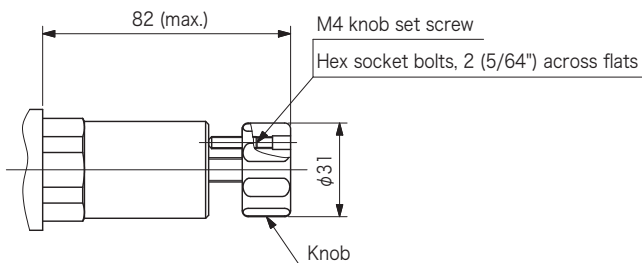
TGMX2-3-P*L-W-G-50 (reducing valve)

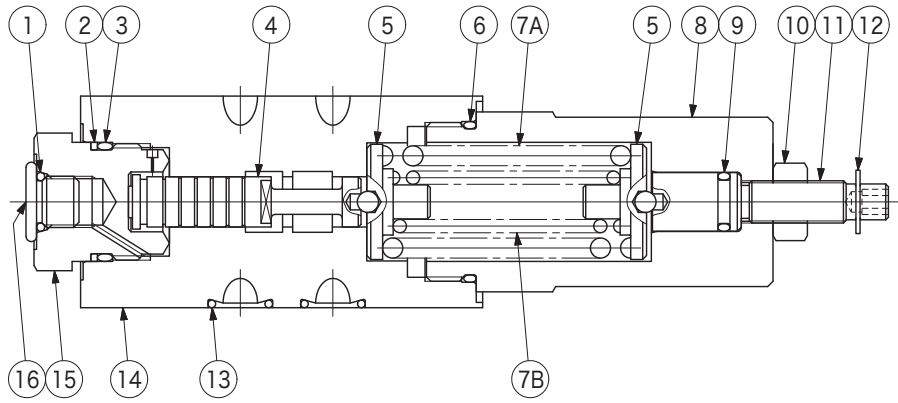


- Compared to standard type, pressure adjuster and gauge port plug positions are reversed. (model "L")

Pressure Adjuster (Option)

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



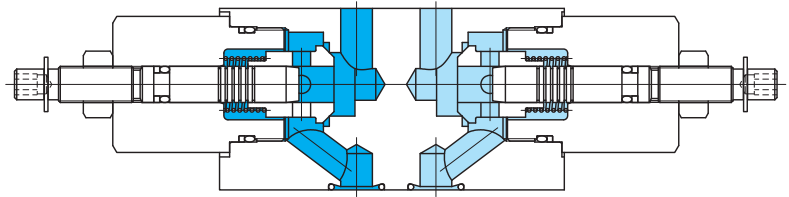


No.	Name	Part No.	Standard	Qty
1	O-ring	008000619	JIS B 2401-1B-P8	1
2	Backup ring	40025078	_____	1
3	O-ring	007901817	AS568-018 (NBR, Hs70)	1
6	O-ring	007902319	AS568-023 (NBR, Hs90)	1
9	O-ring	007901119	AS568-011 (NBR, Hs90)	1
13	O-ring	007901219	AS568-012 (NBR, Hs90)	4

Spring

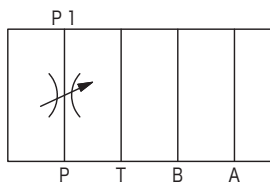
		No.	
Code		7A	7B
A		40024925	_____
B		40024926	_____
C		40024927	_____
F		40024928	40025084

Restrictor valves TGMFN-3, 50 series

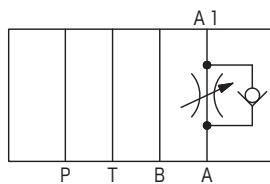


Functional Symbols

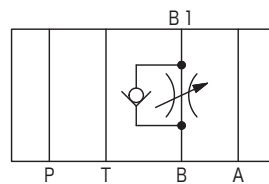
TGMFN-3-Z-P*W



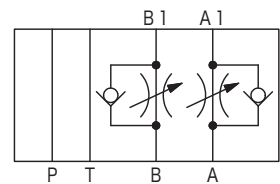
TGMFN-3-X-A*W



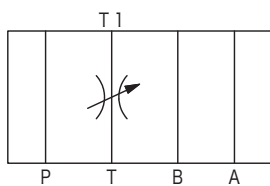
TGMFN-3-X-B*W



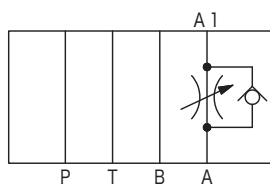
TGMFN-3-X-A*W-B*W



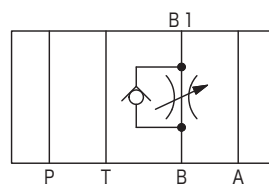
TGMFN-3-Z-T*W



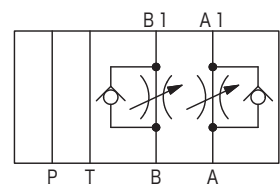
TGMFN-3-Y-A*W



TGMFN-3-Y-B*W



TGMFN-3-Y-A*W-B*W



Model Code

(F3)-TGMFN-3-*-*2W-(B2W)-50

1 2 3 4 5 6 7 8 9 10 11

- 1 Hydraulic fluid
Omit: mineral oil based fluid, water-glycol based fluid
F3: phosphate ester
- 2 Restrictor
- 3 Mounting dimensions
3: ISO 4401-03
- 4 Control direction (See "Functional Symbols".)
X: flow control to actuator (meter-in control)
Y: flow control from actuator (meter-out control)
Z: meter-in control (P line only) or meter-out control (T line only)
- 5 Control line
P: P line (for single type)
T: T line (for single type)
A: A line
B: B line (for single type)

- 6 Flow control
1: fine adjustment
2: standard
 - 7 Adjuster
W: hex socket adjustment screw
H: knob
 - 8 Control line
B: B line
 - 9 Flow control
Same as 6
 - 10 Adjuster
Same as 7
 - 11 Design no.
- } for A, B dual line control (double type)

Specifications

- Max. Working Pressure: 31.5 MPa
- Max. Flow: 60 L/min

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

■ Metering Characteristics

Fig. 1: Fine metering type "1"

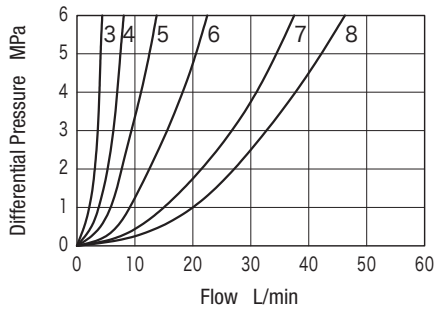
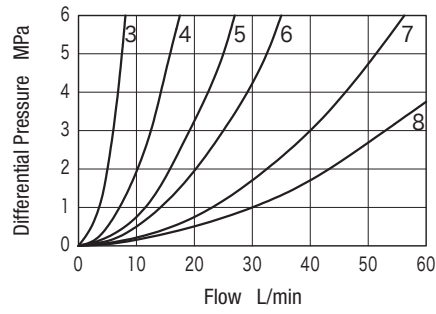
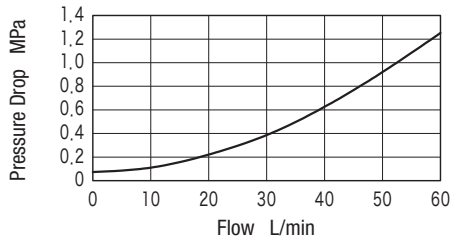


Fig. 2: Standard metering type "2"



■ Pressure Drop Characteristics

Fig. 3: In case of free flow direction of internal check valve

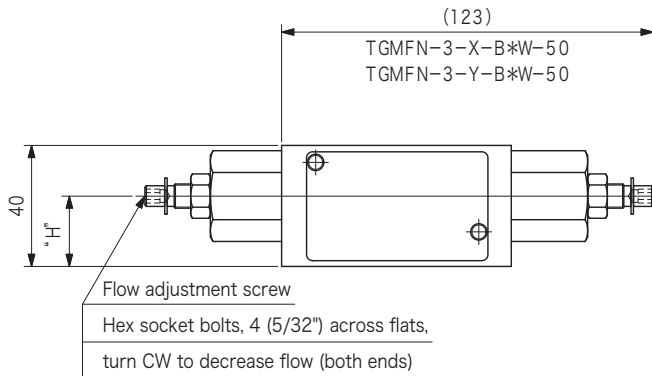
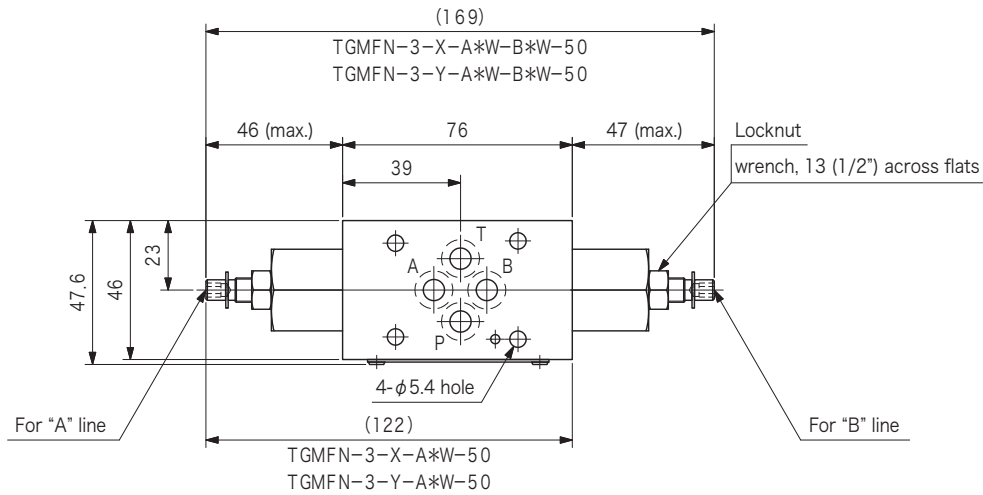


- Values in Fig. 1, 2 show turns of adjustment screw from fully closed position.

Dimensions

TGMFN-3-*-*W-(B*W)-50 (one-way restrictor)

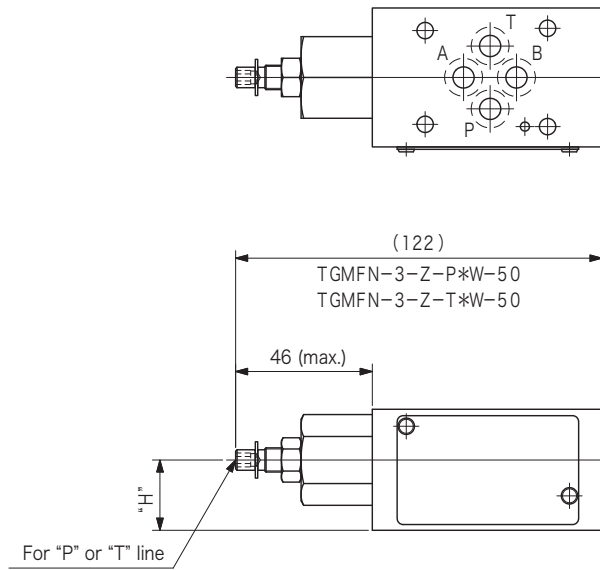
Weight: 1.1 kg



Model Code	"H"
TGMFN-3-X-A*W-50	16.75
TGMFN-3-X-B*W-50	
TGMFN-3-X-A*W-B*W-50	23.25
TGMFN-3-Y-A*W-50	
TGMFN-3-Y-B*W-50	
TGMFN-3-Y-A*W-B*W-50	

Dimensions

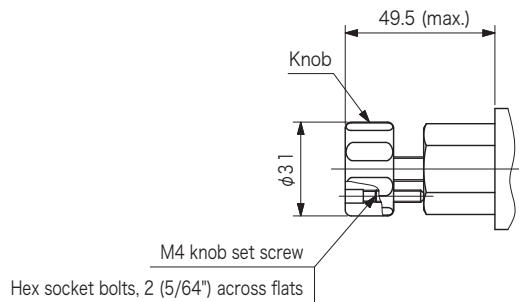
TGMFN-3-Z-**W-50 (restrictor)



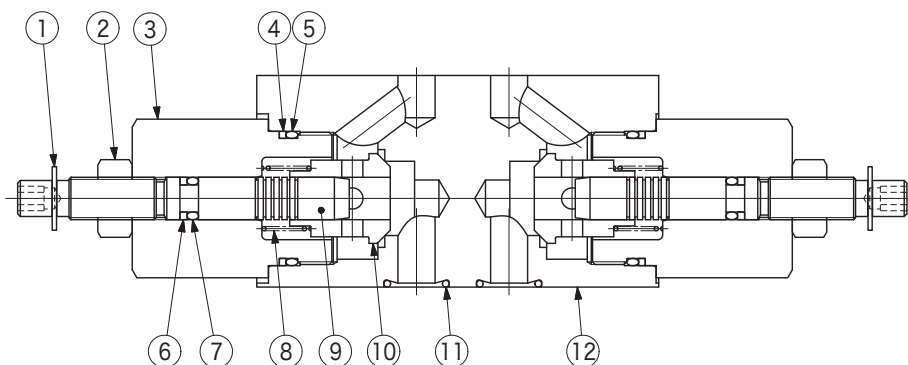
Model Code	"H"
TGMFN-3-Z-P*W-50	16.75
TGMFN-3-Z-T*W-50	23.25

Flow Adjuster

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



Construction



Note: Parts ① ~ ⑩ for one side only for single type.

No.	Name	Part No.	Standard	Qty	
				Single type	Double type
4	Backup ring	40025055	—————	1	2
5	O-ring	007902017	AS568-020 (NBR, Hs70)	1	2
6	Backup ring	40025095	MS28774-008	1	2
7	O-ring	007900817	AS568-008 (NBR, Hs70)	1	2
11	O-ring	007901219	AS568-012 (NBR, Hs90)	4	4