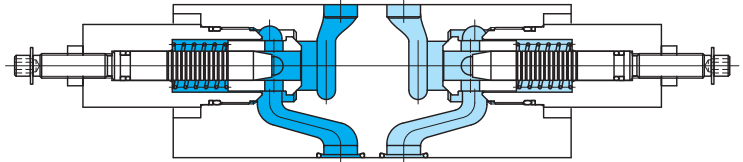


# Restrictor valves TGMFN-5, 50 series

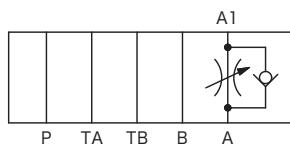


## Functional Symbols

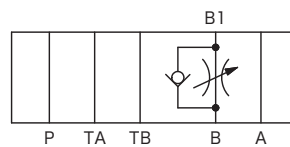
TGMFN-5-X-P\*W



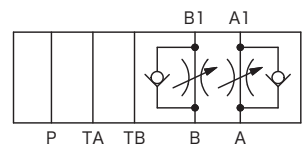
TGMFN-5-X-A\*W



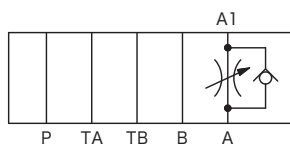
TGMFN-5-X-B\*W



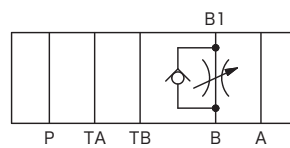
TGMFN-5-X-A\*W-B\*W



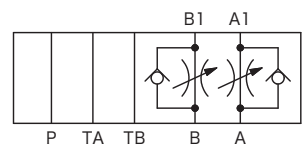
TGMFN-5-Y-A\*W



TGMFN-5-Y-B\*W



TGMFN-5-Y-A\*W-B\*W



## Model Code

(F3)-TGMFN-5-\*\*-\*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

5: ISO 4401-05

**4** Control direction (see "Functional Symbols".)

X: flow control to actuator (meter-in control)  
Y: flow control from actuator (meter-out control)

**5** Control line

P: P 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)

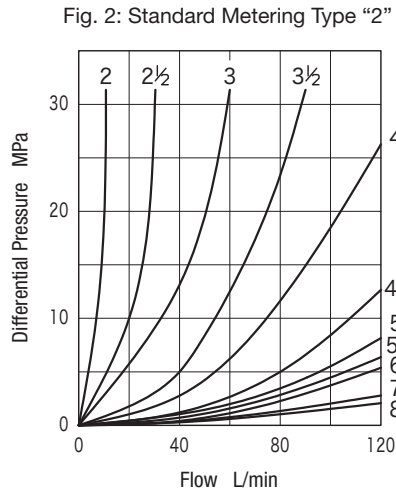
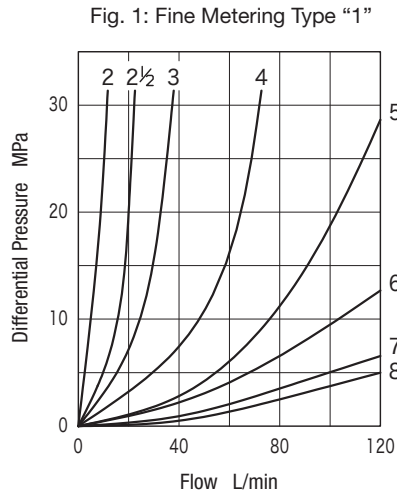
## Specifications

- Max. Working Pressure: 31.5 MPa
- Max. Flow: 120 L/min
- Check Valve Cracking Pressure: 0.05 MPa

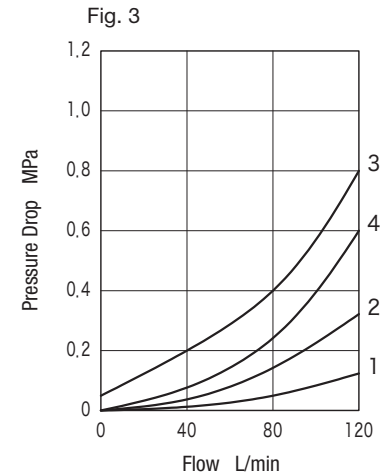
- Minimum Control Flow (max. internal leakage volume)  
This may vary valve to valve or according to the differential pressure. With differential pressure across the throttle of 10 MPa, max. leakage will be about 320 cm<sup>3</sup>/min. (20 mm<sup>2</sup>/s, 50°C) (leakage volume will be proportional to pressure)

## Characteristics Curve (at 20 mm<sup>2</sup>/s, 50°C) (typical examples)

### ■ Metering Characteristics



### ■ Pressure Drop Characteristics



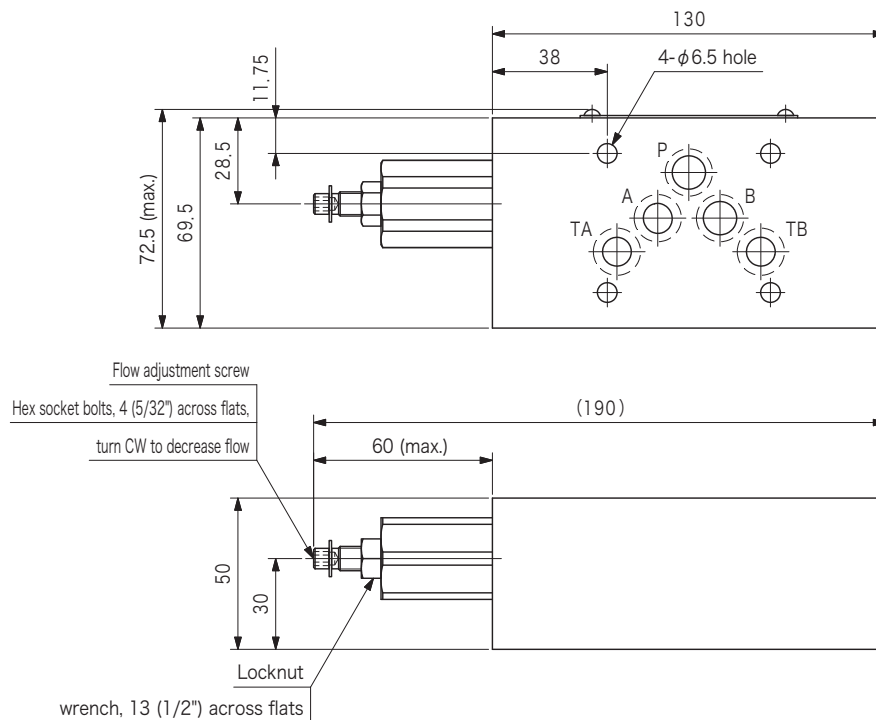
- Values in Fig. 1, 2 show turns of adjustment screw from fully closed position.
- Overall valve pressure loss is the sum of Fig. 1, Fig. 2 and Fig. 3.
- Fig. 3, curve "3" show characteristics with free flow over check valve.

### • Pressure Drop Characteristics Curve No.

Model Code	Flow Port			
	P	T	A	B
TGMFN-5-X-P**	—	1	2	1
TGMFN-5-X-A**	1	2	3	4
TGMFN-5-Y-A**	1	2	4	3
TGMFN-5-X-B**	1	2	3	3
TGMFN-5-Y-B**	1	2	3	3

## Dimensions

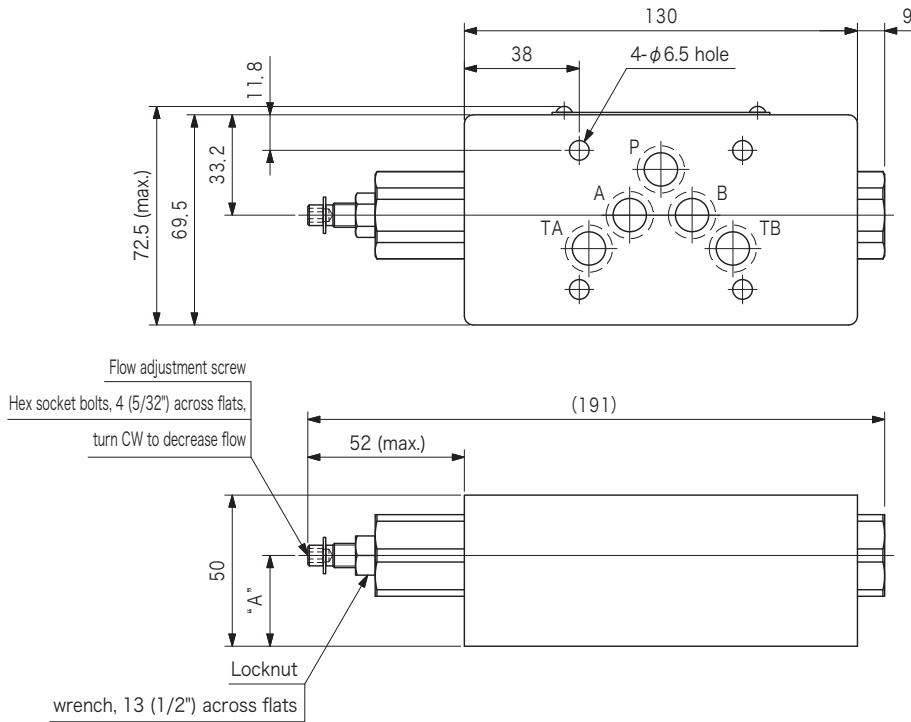
TGMFN-5-X-P\*W-50 (single type restrictor for P port) Weight: 3.1 kg



## Dimensions

TGMFN-5-\***-A**\*W-50 (single type one-way restrictor for A port)

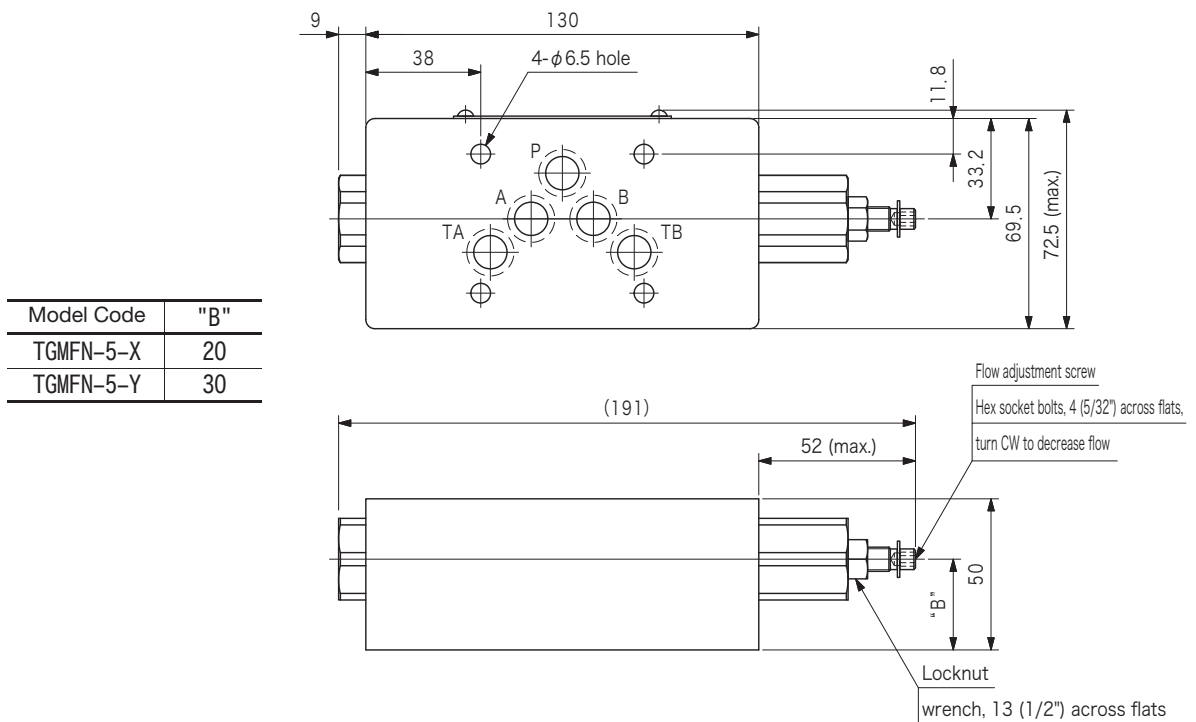
Weight: 3.0 kg



Model Code	"A"
TGMFN-5-X	20
TGMFN-5-Y	30

TGMFN-5-\***-B**\*W-50 (single type one-way restrictor for B port)

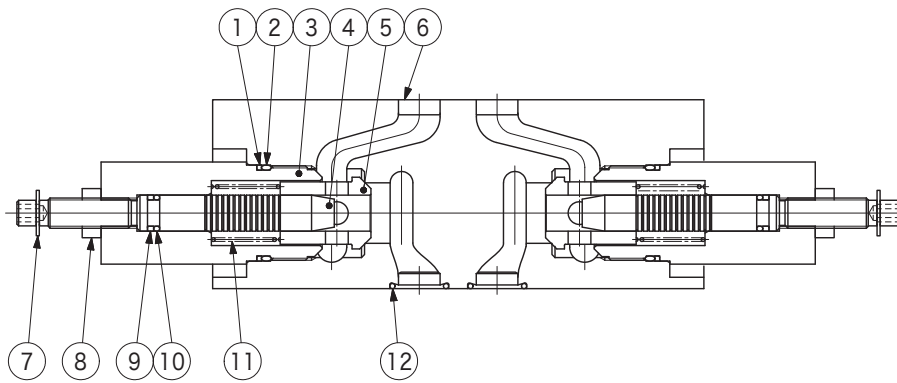
Weight: 3.0 kg



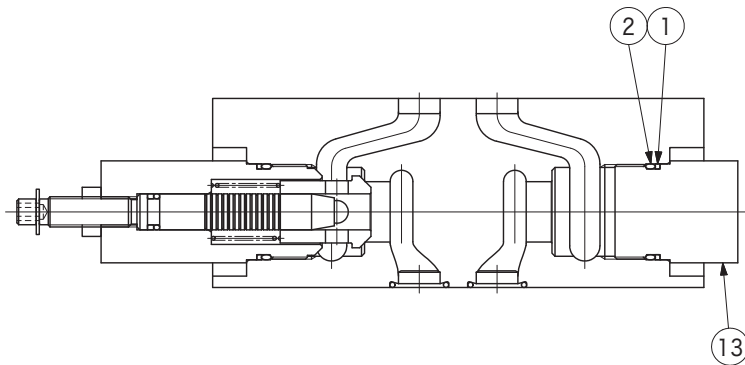
Model Code	"B"
TGMFN-5-X	20
TGMFN-5-Y	30



# Construction

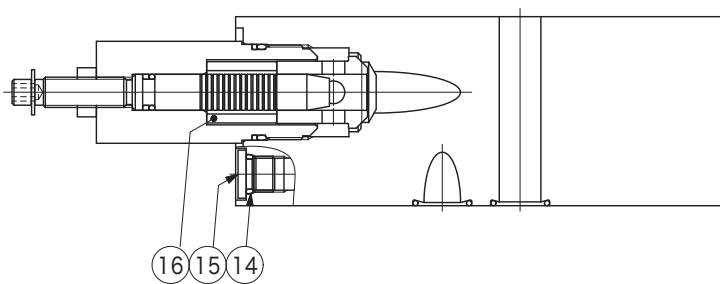


TGMFN-5-\*-A\*\*-B\*\*-50



TGMFN-5-\*-A\*\*-50

TGMFN-5-\*-B\*\*-50



TGMFN-5-X-P\*\*-50

G  
29-5

Stack Valves

No.	Name	Part No.	Standard	Qty		
				Single Type		Double Type
				P **	A ** B **	
1	Backup ring	40025055	—	1	2	2
2	O-ring	007902017	AS568-020 (NBR, Hs70)	1	2	2
9	Backup ring	40025917	MS28774-010	1	1	2
10	O-ring	007901019	AS568-010 (NBR, Hs90)	1	1	2
12	O-ring	007901419	AS568-014 (NBR, Hs90)	5	5	5
14	O-ring	007990319	AS568-903 (NBR, Hs90)	1	—	—