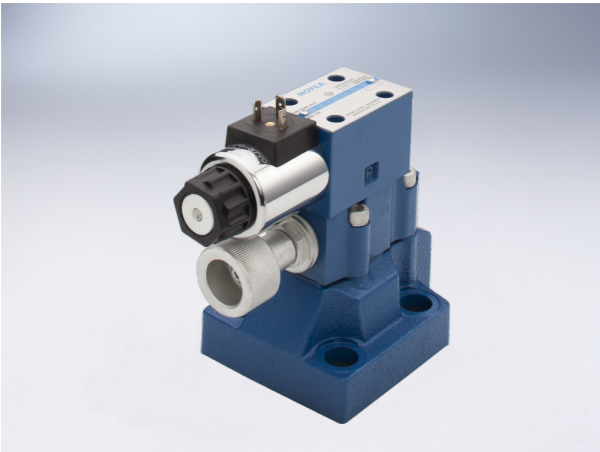


# Relief Valve

## Technical specification



Specification		03		06		10	
		10	15	20	25	30	
Max. Flow (L/min)		250	500	500	500	650	
Max. working pressure (MPa)		35					
Working fluid		Mineral oil; phosphate-ester					
Fluid temp. (°C)		-20~70					
Viscosity (mm <sup>2</sup> /s)		12~380					
Working press (MPa)		5	10	20	31.5	35	
Cleanliness	The maximum allowable cleanliness of the oil should be according to 9th degree of Standard NAS1638. It is suggested that the minimum filter rating should be $\beta_{10} \geq 75$ .						

The relief valve is a pressure control valve. It maintains constant pressure at inlet by discharging excess fluid in the system. Solenoids relief valve is a combination of electromagnetic directional valve and pilot-operated pressure relief valve, it is used to control or unload multi-stage pressure in hydraulic system.

## Model description

Relief valve **Y \* \* - \* \* - \* \* - \* \* / \* \* \* \* / \* \* \* 50 \***

Omit without solenoids directional valve  
W With solenoids directional valve

Omit Pilot operated valve  
C Pilot operated without main cartridge (not marked diameter)  
Pilot operated with main cartridge (marked diameter)

Subplate	Pipeline	DN	Screw thread connector
03	10	10	G1/2" or M22x1.5
	15	15	G3/4" or M27x2
06	20	20	G1" or M33x2
	25	25	G1 1/4" or M42x2
10	30	30	G1 1/2" or M48x2

Omit Subplate connection  
G Pipe type connection-G Scw  
G2 Pipe type connection-M Scw

Working pressure  
5 to 5MPa  
10 to 10MPa  
20 to 20MPa  
31.5 to 31.5MPa  
35 to 35MPa

A Always close<sup>1)</sup>  
B Always open

1 Rotary knob  
2 Sleeve with hehagon and protective cap

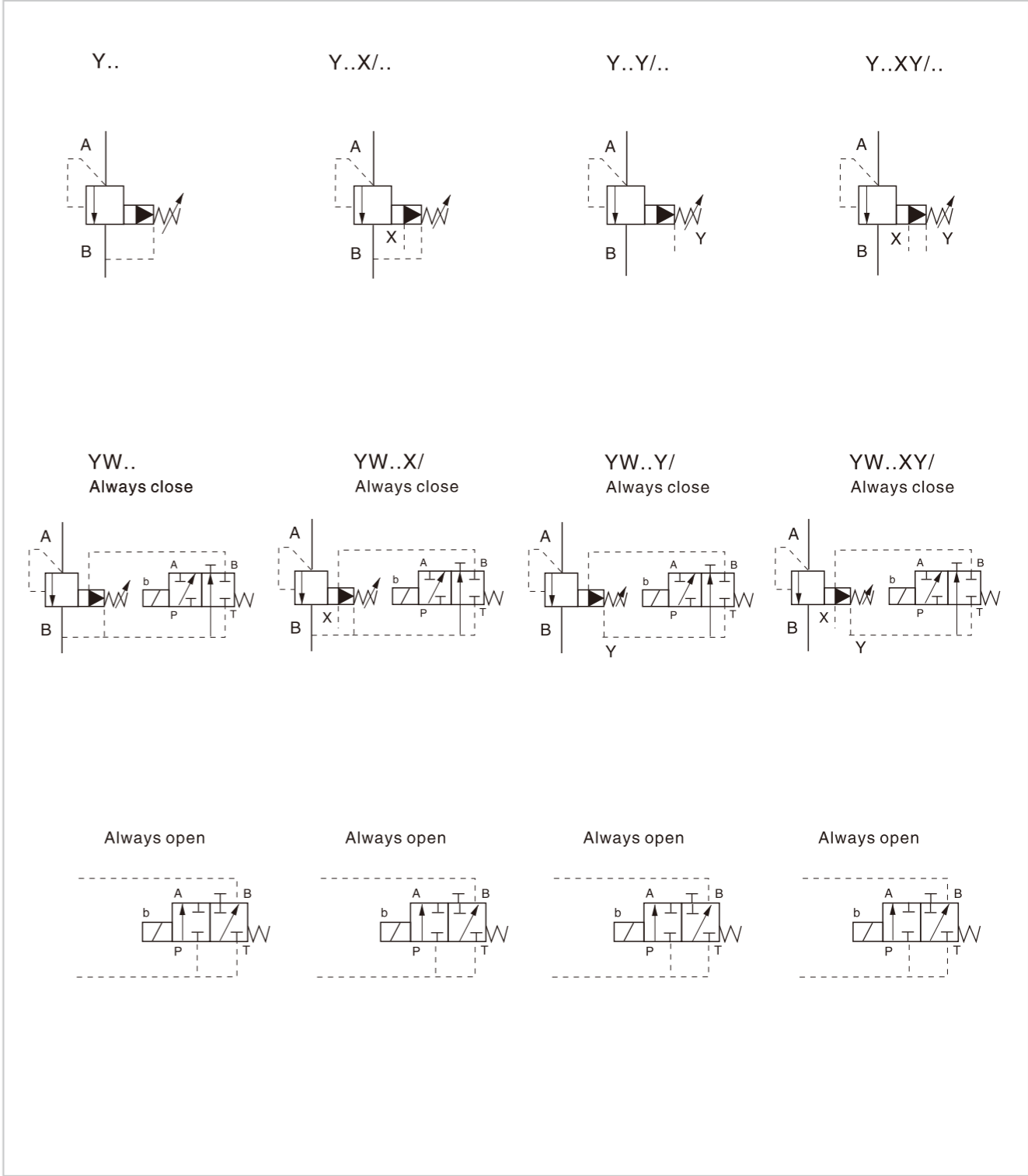
Remarks  
Serial number  
Seal material  
Omit NBR Seals  
V FPM Seals  
Pilot operated drainage port thread  
Omit G1/4"  
2 M14X1.5  
Omit No damping<sup>2)</sup>  
08  $\Phi 0.8$  Damping  
10  $\Phi 1.0$  Damping  
12  $\Phi 1.2$  Damping  
Omit without push rod emergency<sup>3)</sup>  
N9 with concealed push rod emergency  
Z5L Square connector with light<sup>4)</sup>  
Working voltage<sup>5)</sup>  
D12 DC12V  
D24 DC24V  
A110 AC110V  
A220 AC220V  
B110 (B110V Rectified)  
B220 (B220V Rectified)  
Omit Standard Type<sup>6)</sup>  
U minimum setting pressure is lower type  
Omit Intl cntrl intl disch  
X Extl cntrl intl disch  
Y Intl cntrl extl disch  
XY Extl cntrl extl disch

# Relief Valve

## Notice explanation

- Item 1),2),3),4),5) is used in YW solenoid relief valves
- Item 2) damping is fixed at port B of solenoid directional valves
- 6) Type U characteristic refer to the curve

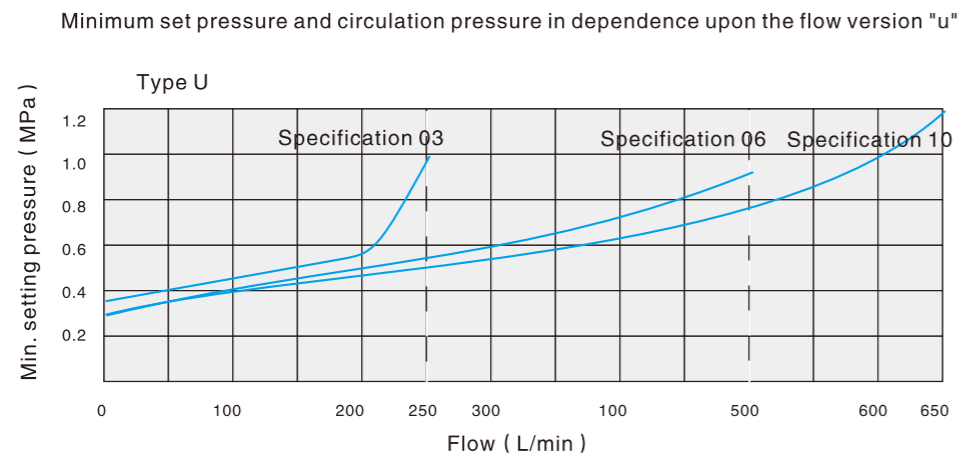
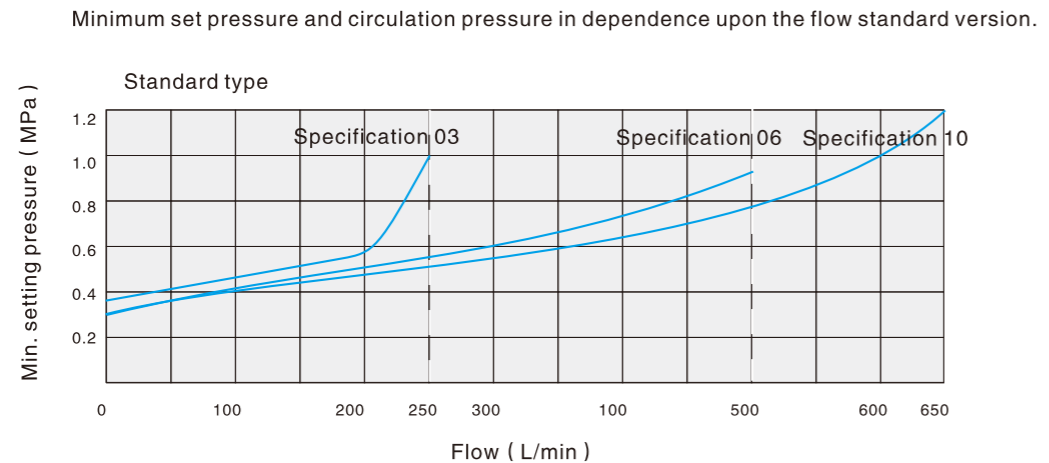
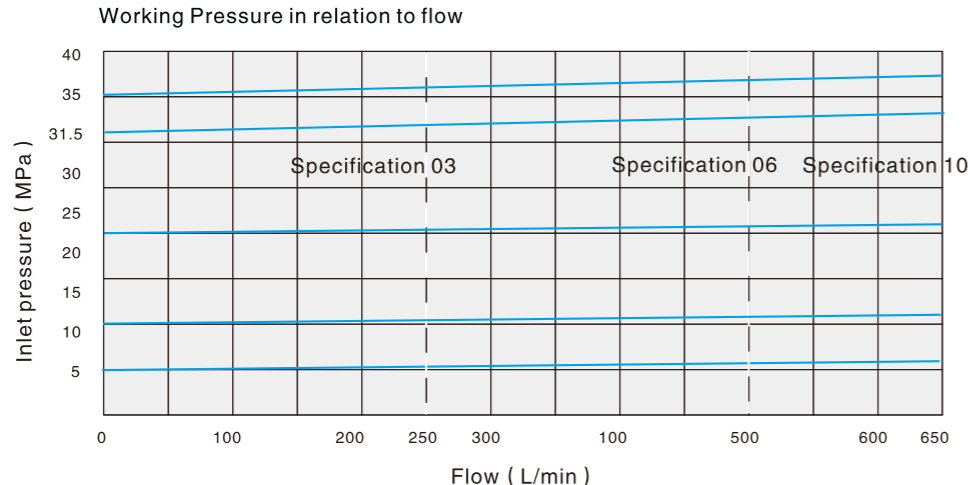
## Code symbol



# Relief Valve

**Performance curve** ( Measured at  $v=41\text{mm}^2/\text{s}$  and  $t=50^\circ\text{C}$  )

- 1) The characteristic curves were measured with external, pressureless, pilot oil drain.
- 2) In the case of internal pilot oil drain, the inlet pressure increases by the outlet pressure in port T.

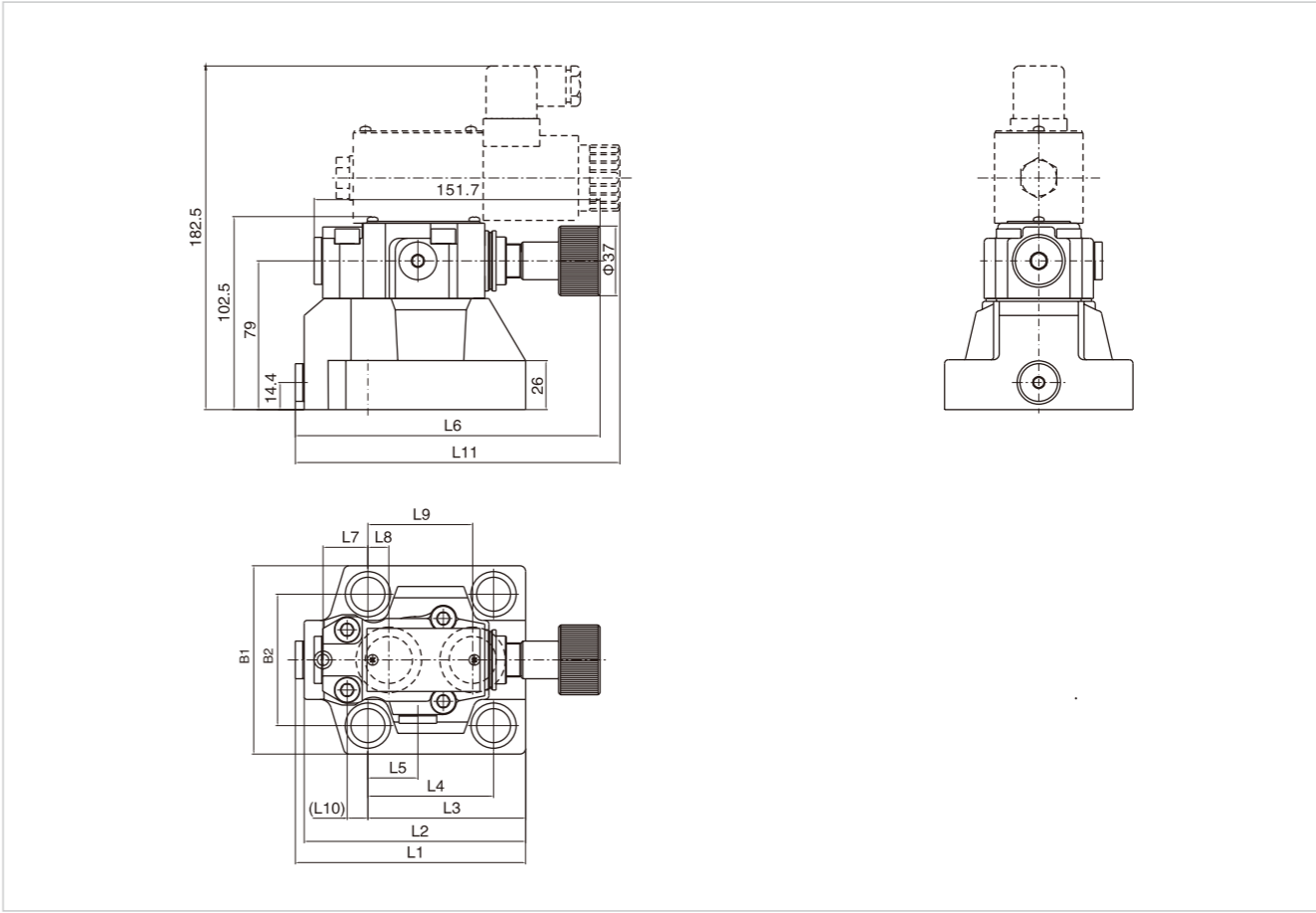


The characteristic curves are valid for outlet pressure B:0 over the entire flow range.

B.1.3

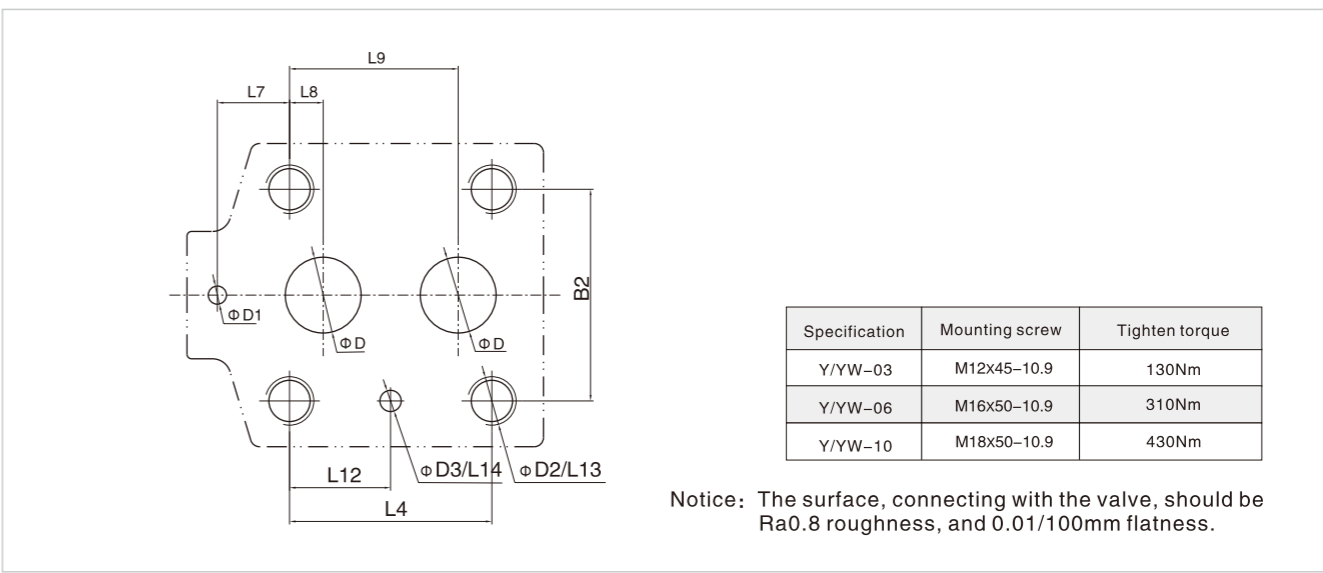
# Relief Valve

**External dimensions**



B.1.4

**Subplate mounting size**



Specification	B1	B2	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14	D	D1	D2	D3
Y/YW-03	78	54	98.5	91.5	67	54	23.5	149.3	0	22.1	47.5	14	159.7	22.1	20	5	12	6	M12	7
Y/YW-06	100	69.8	122.2	117.5	83.7	66.7	26.5	161.8	23.8	11.1	55.6	11	172.2	33.3	25	6	25	6	M16	7
Y/YW-10	115	82.6	154.5	149.5	106.9	88.9	28.1	172.5	31.8	12.7	76.2	9.4	182.9	44.4	30	6	32	6	M18	7