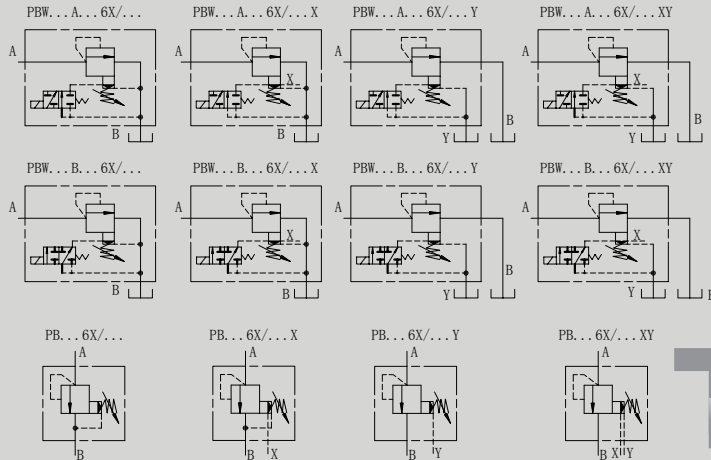


## PB/PBW 60/6X SERIES PILOT OPERATED PRESSURE RELIEF VALVES

### SYMBOL



PB is pilot operated pressure relief valve, PBW is a pilot operated solenoid relief valve available to unload system pressure.

The performance of 6X series is superior than 60 series, the 6X series can be used to control the pressure of hydraulic systems smoothly in a wide range. This type is suitable for a hydraulic system which demands high flow rate.

### ▶ Technical data

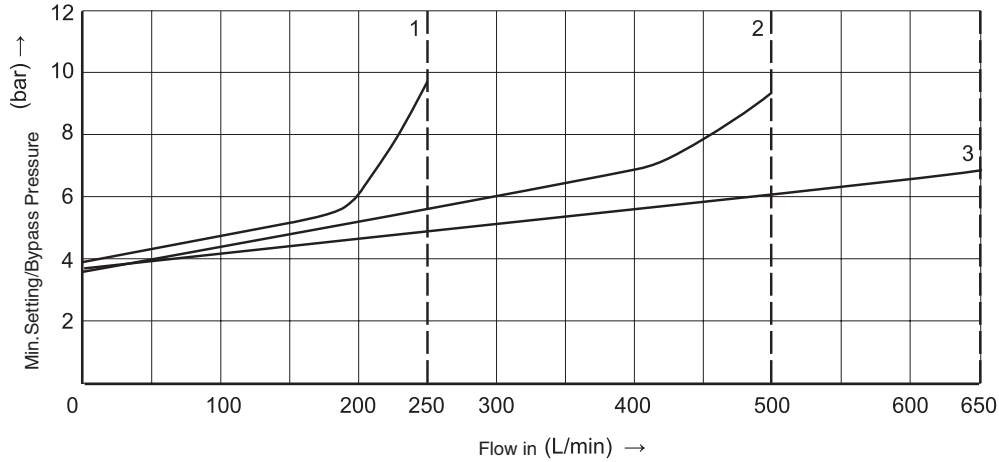
Size		10		20		30	
Series No		60	6X	60	6X	60	6X
Operating pressure(Mpa)		31.5	35	31.5	35	31.5	35
Max .flow rate(L/min)		200	250	400	500	600	650
Fluid temperature(°C)		-20 ~ 70					
Filtration accuracy( μ m)		25					
Weight(KGS)	PB	3.2		4.2		5.2	
	PBW	4.7		5.5		6.8	
Valve body ( Material ) Surface treatment		casting phosphating surface					
Oil cleanliness		NAS1638 class 9 and ISO4406 class 20/18/15					



HLP46 ,  $\vartheta=40^{\circ}\text{C} \pm 5^{\circ}\text{C}$

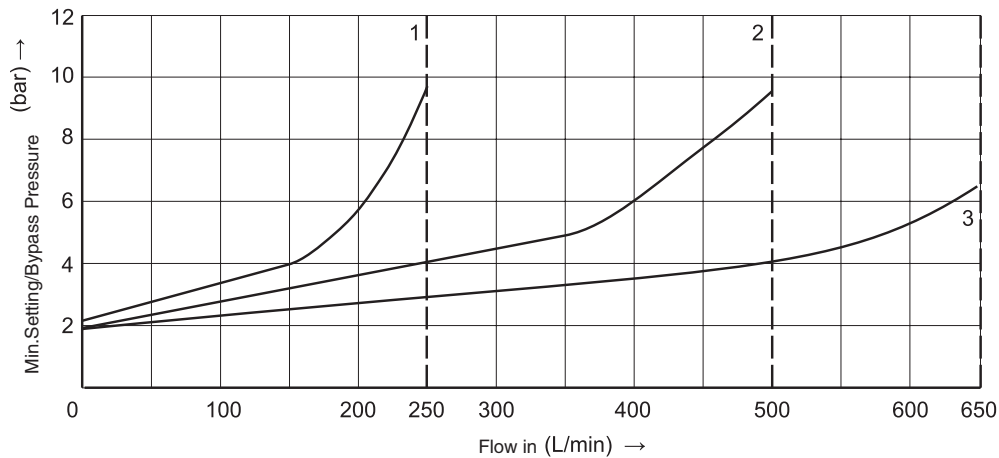
Characteristic curves ( measured with HLP46,  $\text{Voil}=40^{\circ}\text{C} \pm 5^{\circ}\text{C}$  )

Characteristic of Min.Setting Pressure.bypass pressure and flow  
Standard



- 1. Size 10
- 2. Size 20
- 3. Size 30

Charateristics of Min.Setting Pressure.bypass presure and flow  
Type "U"



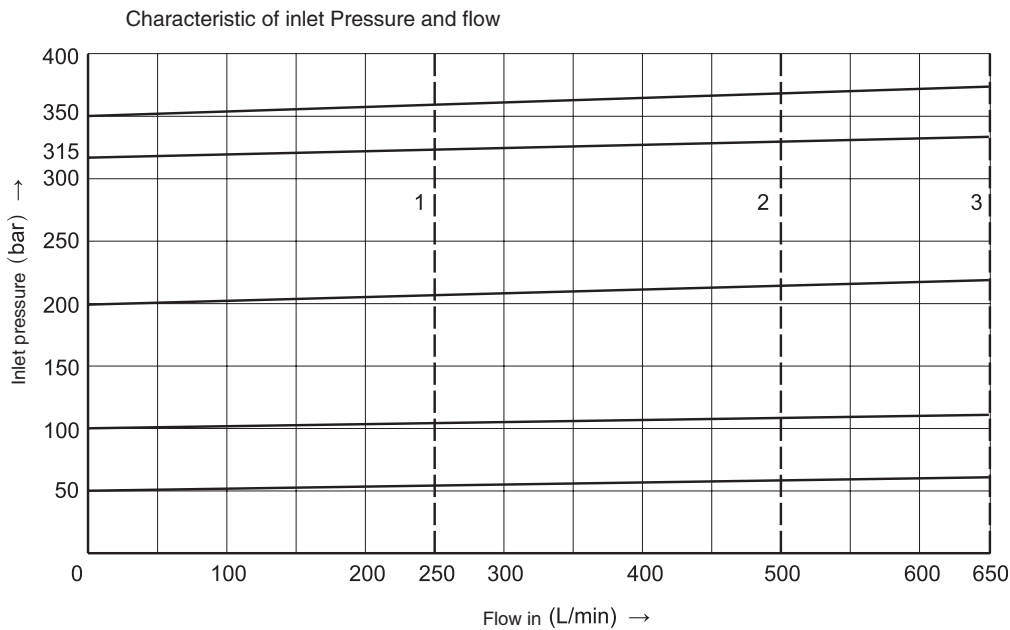
- 1. Size 10
- 2. Size 20
- 3. Size 30

Attention!

The curves is measured without pressure when control oil back to the tank.  
Refers to the back into housing of the control oil,the pressure of "T" port has increased against the input pressure.

The curves are available when the output pressure  $P_t=0$  within the flow ranges.

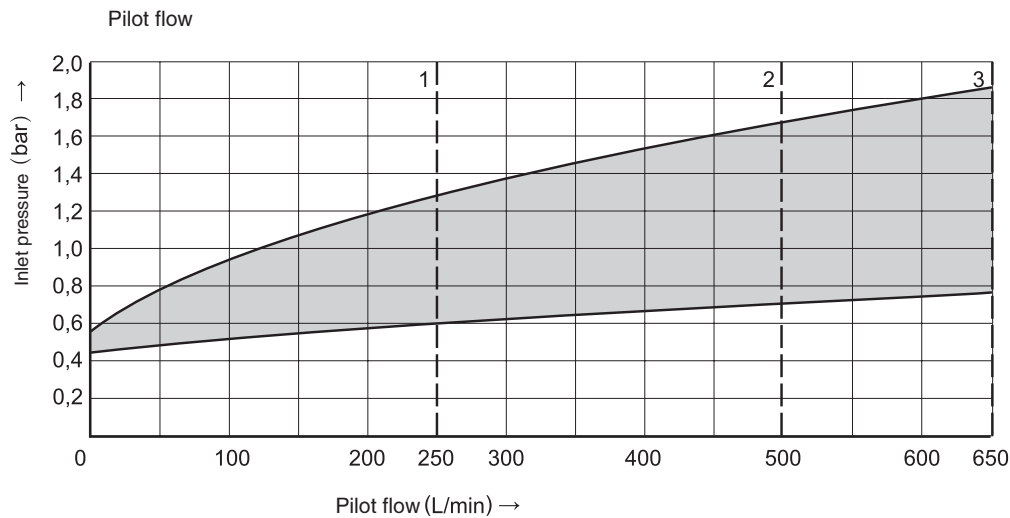
▶ HLP46 ,  $\vartheta = 40^{\circ}\text{C} \pm 5^{\circ}\text{C}$   
 Characteristic curves ( measured with HLP46,  $\text{Voil}=40^{\circ}\text{C} \pm 5^{\circ}\text{C}$  )



- 1. Size 10
- 2. Size 20
- 3. Size 30

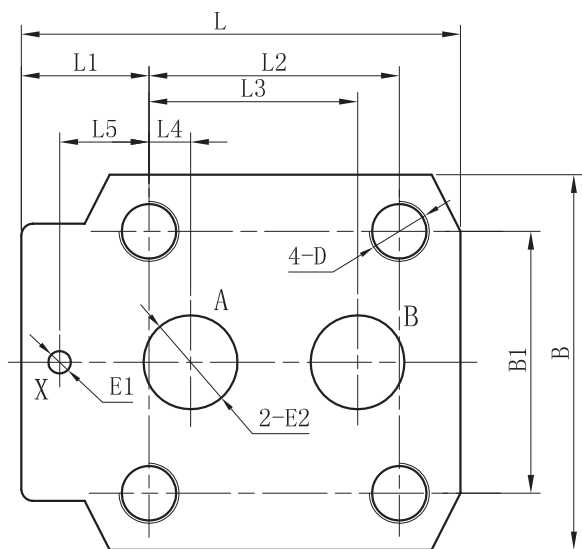
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 The curves is measured without pressure when control oil back to the tank.  
 Refers to the back into housing of the control oil, the pressure of "T" port  
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▶ HLP46 ,  $\vartheta = 40^{\circ}\text{C} \pm 5^{\circ}\text{C}$   
 Characteristic curves ( measured with HLP46,  $\text{Voil}=40^{\circ}\text{C} \pm 5^{\circ}\text{C}$  )

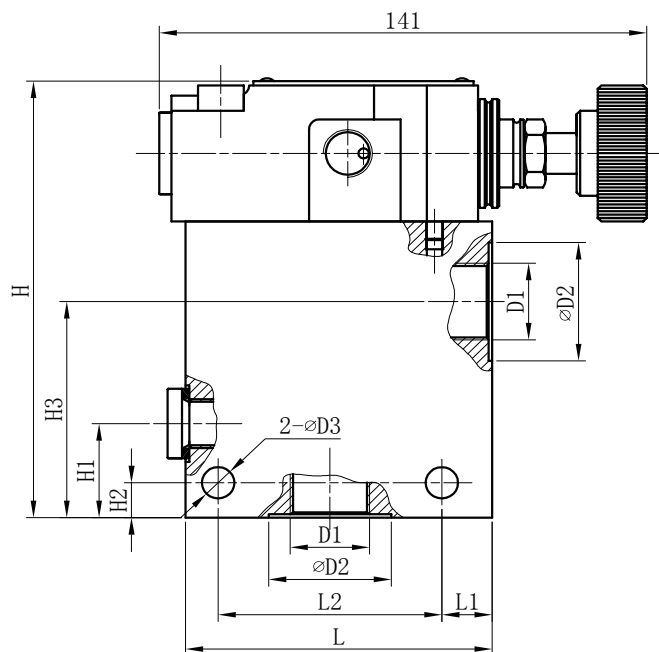


- 1. Size 10
- 2. Size 20
- 3. Size 30

▶ Subplate mounting



▶ Threaded connections



▶ Subplate mounting

Model	L	L1	L2	L3	L4	L5	B	B1	D	E1	E2
PB/PBW10	90	23.5	54	47.6	22.2	0	78	54	M12/26	Φ6	Φ12
PB/PBW20	117	34	66.7	55.6	11.1	23.8	100	69.8	M16/26	Φ6	Φ25
PB/PBW30	148	41.5	88.7	76.2	12.7	31.7	115	82.5	M18/26	Φ7	Φ32

▶ Threaded connections

Model	D1		D2	D3	L	L1	L2	H	H1	H2	H3
	Metric	Inch									
PB8G	M18 × 1.5	G 3/8"	28	9	85	14	62	125	27	10	62
PB10G	M22 × 1.5	G 1/2"	34	9	85	14	62	125	27	10	62
PB15G	M27 × 2	G 3/4"	42	9	85	14	62	125	27	10	62
PB20G	M33 × 2	G 1"	47	9	85	14	62	125	27	10	57
PB25G	M42 × 2	G 1 1/4"	56	9	100	18	72	138	40	13	66
PB30G	M48 × 2	G 1 1/2"	61	9	100	18	72	138	40	13	66

PB	W	10	*	*	1	60	31.5	*	*	DC24	N	Z5L	*	*
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Model

No code=NBR seals  
V=FPM seals

No code=Without directional valve  
W=With directional valve

No code=Inch thread;  
2=Metric thread

Z5L=Big quadrate plug with light

Size  
Subplate mounting:10;20;30  
Threaded connection:8;10;15;  
20;25;30

No Code=Without manual override  
N=With manual override

Voltage AC220;DC24

A=Normally closed  
B=Normally open

No code=subplate mounting  
G=Threaded connection

No Code=Standard  
U=For min.cracking pressure

1= Hand wheel  
2= Sleeve with hexagon and protective cap

Series number: 60; 6X

No code = Internally pilot, internally drained  
X = Externall pilot, internally drained  
Y = Internally pilot, externally drained  
XY = Externall pilot, externally drained

Pressure range (Mpa) 5;10;20;31.5