

Balanced Valve

Model DC...-1X



- ◆ Size 10 to 30
- ◆ Maximum working pressure 315 bar
- ◆ Maximum working flow 330 L/min

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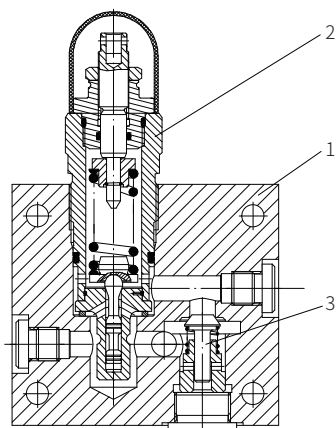
Features

- Subplate mounting
- Threaded connection
- 3 adjustment elements
 - Rotary knob
 - Inner hexagon screw with protective cap
 - Lockable rotary knob
- 5 pressure ratings

Function description, sectional drawing

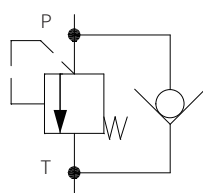
The DC pressure control valve is a balanced valve which is composed of valve body (1), direct operated relief valve (2) and check valve (3).

It is used to maintain the hydraulic load. When the cylinder rises, the pressure oil can pass freely. When it falls, the pressure is resulted in the return pipe to prevent the cylinder from falling due to its own weight.



Model DC...1XJ/

Functional symbol



Models and specifications

size	subplate mounting	threaded connection	DC	1X	more information in text
6	-	G1/4 or M14*1.5			
10	10	G1/2 or M22*1.5			
15	-	G3/4 or M27*2			
20	20	G1 or M33*2			
25	-	G1 1/4 or M42*2			
30	30	G1 1/2 or M48*2			

subplate mounting	=P
threaded connection	=G
rotary knob	=1
inner hexagon screw with protective cap	=2
lockable rotary knob	=3

No code=	sealing material
V=	NBR seals
	FKM seals
	(consult for other seals)
No code=	G thread
2=	M thread
	(for threaded connection only)
25=	set pressure up to 2.5MPa
50=	set pressure up to 5MPa
100=	set pressure up to 10MPa
200=	set pressure up to 20MPa
315=	set pressure up to 31.5MPa

1X=	10 to 19 series
	(10 to 19 series installation and connection size unchanged)

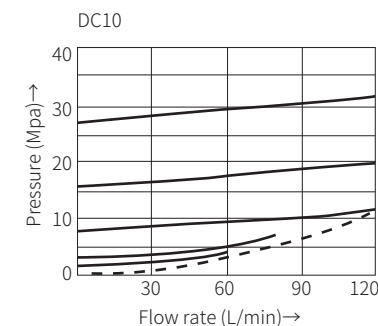
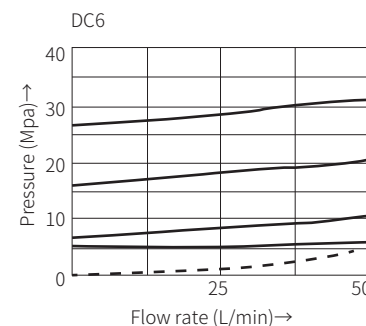
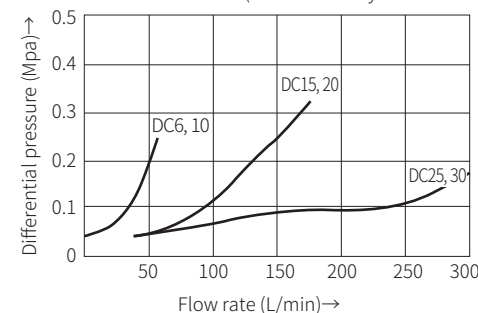
Technical parameters

Medium	Mineral hydraulic oil or phosphate hydraulic oil					
Working temperature range °C	-30 to +80 (NBR seal); -20 to +80 (FRM seal)					
Viscosity range mm²/s	10 to 800					
Size	6	10	15	20	25	30
Working pressure: port A, B MPa	to 31.5					
Cracking pressure MPa	to 0.05					
Maximum flow L/min	45	110	230	330		

Characteristic curve

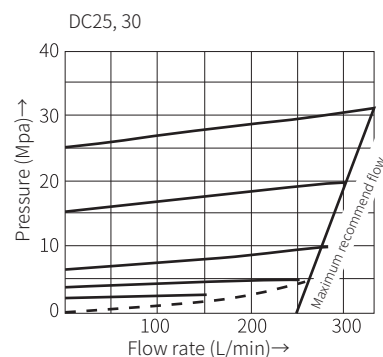
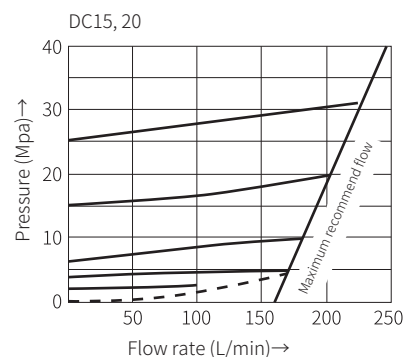
(Measured when using HLP46, $\vartheta_{oil} = 40^{\circ}\text{C} \pm 5^{\circ}\text{C}$)

Pressure loss curve (with flow freely via check valve)



Characteristic curve

(Measured when using HLP46, $\vartheta_{oil}=40^{\circ}\text{C} \pm 5^{\circ}\text{C}$)

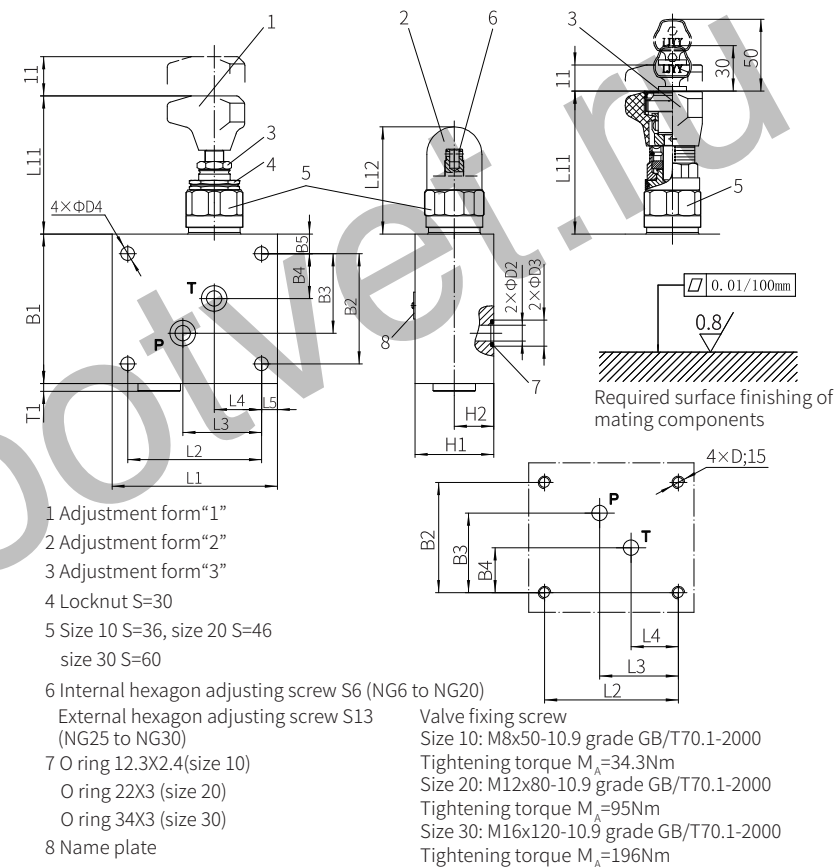


----- Minimum adjusting pressure

Component size

Size unit: mm

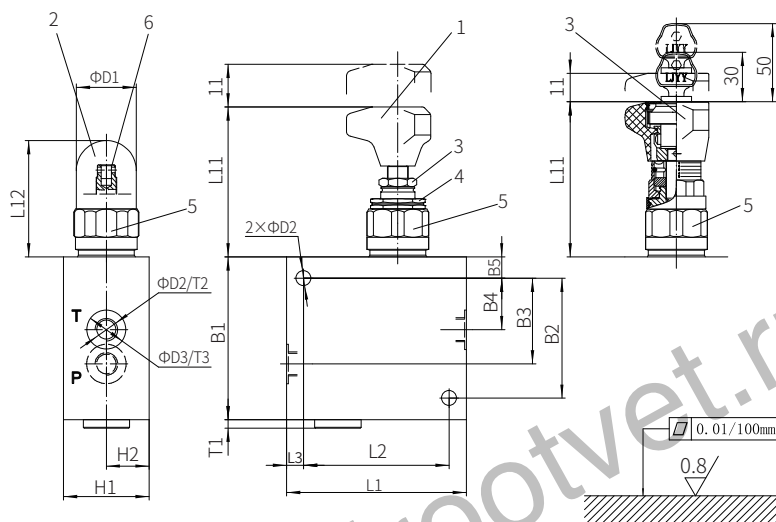
Model DC...P...-1XJ/..., subplate mounting



Size	L1	L2	L3	L4	L5	L11	L12	B1	B2	B3	B4
10	105	85	50	30	10	79	68	95	70	50.5	28.5
20	145	115	65	35	15	77	65	135	85	63	29
30	180	150	75	45	15	-	83	175	125	82	35

Size	B5	H1	H2	D1	D2	D3	D4	T1	D
10	12.5	50	25	38	10	17.8	9	4	4×M8
20	25	60	30	46	20	27.7	13	4	4×M12
30	25	80	40	63	30	41.6	17	5	4×M16

Model DC...G...-1XJ/..., threaded connection



1 Adjustment form "1"

2 Adjustment form "2"

3 Adjustment form "3"

4 Locknut S=30

5 Size 10 S=36, size 20 S=46 size 30 S=60

6 Internal hexagon adjusting screw S6 (NG6 to NG20)

External hexagon adjusting screw S13 (NG25 to NG30)

Required surface finishing of mating components

Size	L1	L2	L3	L11	L12	B1	B2	B3	B4	B5
6	105	85	10	83	72	95	70	50.5	28.5	12.5
10				79	68					
15	140	110	15	77	65	135	85	63	29	25
20										
25	180	150	15	-	83	175	125	82	35	25
30										

Size	H1	H2	D1	D2	D3	D	T1	T2	T3
6	50	25	34	9	25	M14×1.5 (G1/4")	4	16	1
10			38		38	M22×1.5 (G1/2")		15	
15	60	30	48	14	45	M27×2 (G3/4")	7	18	1
20					52	M33×2 (G1")		20	
25	80	40	63	18	63	M42×2 (G1 1/4")	8	23	1
30					65	M48×2 (G1 1/2")			