



## Catálogo de Productos

Pressure reducing valve, direct operated, type DR 5 DP

BEIJING HUADE HYDRAULIC INDUSTRIAL GROUP CO.,LTD.	<b>Pressure reducing valve, direct operated, type DR 5 DP</b>			RE 26580/12.2004
	Size 5	up to 31.5MPa	up to 15L/min	Replaces: RE26580/05.2001

**Features:**

- Subplate mounting
- 5 pressure ratings
- 4 adjustment elements:
  - Rotary knob,
  - Set screw with hexagon and protective cap,
  - Lockable rotary knob with scale,
  - Rotary knob with scale
- Check valve, optional
- Porting pattern to DIN 24 340, form D,ISO 5781 and CETOP-RP 121H



**Functional,section**

The valve type DR5 DP is a 3-way direct operated pressure reducing valve with a pressure relief function on the secondary side.

It is used to reduce the system pressure. The secondary pressure is set by the pressure adjustment element (4). At rest, the valve is normally open and the pressure fluid can flow unhindered from port P to port A. The pressure in port A is at the same time, via the control line (6), present at the spool area opposite to the compression spring (3). When the pressure in port A exceeds the pressure level set at compression spring (3), the control spool (2) moves into the control position and holds the set pressure in port A constant.

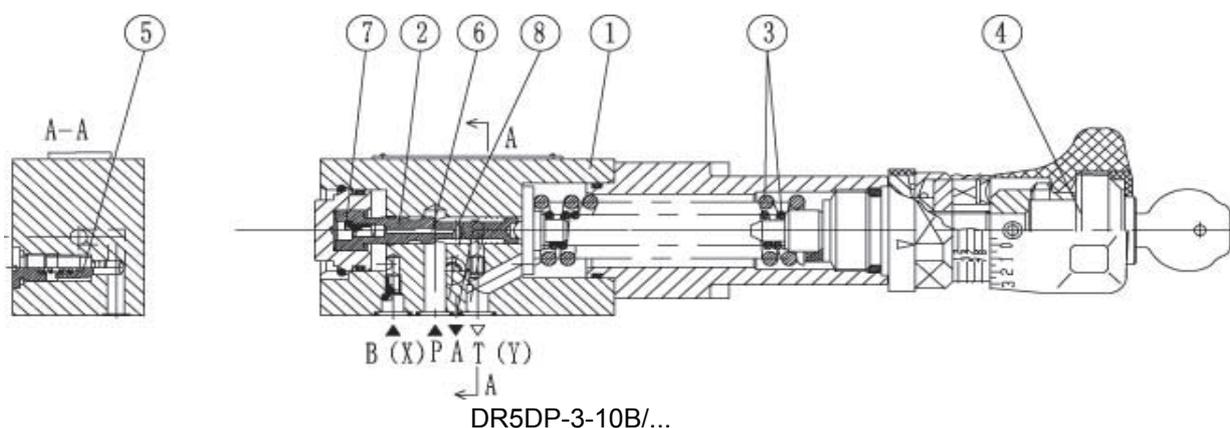
The control and pilot oil are taken from port A via control line (6).

If the pressure in port A still increases due to external forces on the actuator, the control spool(2) moves still further towards the compression spring(3).

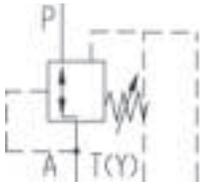
This causes a flow path to be opened at port A via control land (8) on the control spool (2) to the tank. Sufficient pressure fluid then flows to tank to prevent any further rise in pressure.

The spring chamber is always drained to tank externally via port T (Y).

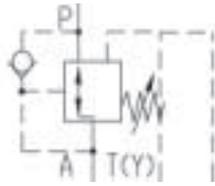
For free return flow from port A to port P an optional check valve (5) can be fitted.



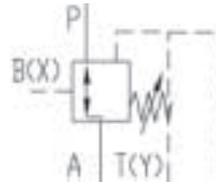
## Symbol



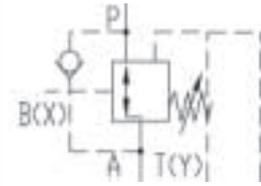
without non-return valve Type "YM"



with non-return valve Type "Y"



without non-return valve Type "XYM"



with non-return valve Type "XY"

## Ordering code

	DR	5	D	P	-	10	B	/	Y		*
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For subplate mounting = No code  
For front flange mounting = F

Size 5 =5

Direct operated = D

Subplate mounting = P

Adjusting element  
Rotary knob = 1  
Head screw with hexagon and protective cap = 2  
Lockable rotary knob with scale 1) = 3  
Rotary knob with scale = 7

Series 10 to 19 = 10  
(50 to 59 = unchanged installation and connection dimensions)

Technology of Beijing Huade Hydraulic =B

further details in clear text

No code. = mineral oils  
V = phosphate ester

No code = with non-return valve  
M = without non-return valve

Y = Pilot oil supply internal,  
drain external  
XY = Pilot oil supply internal,  
drain external

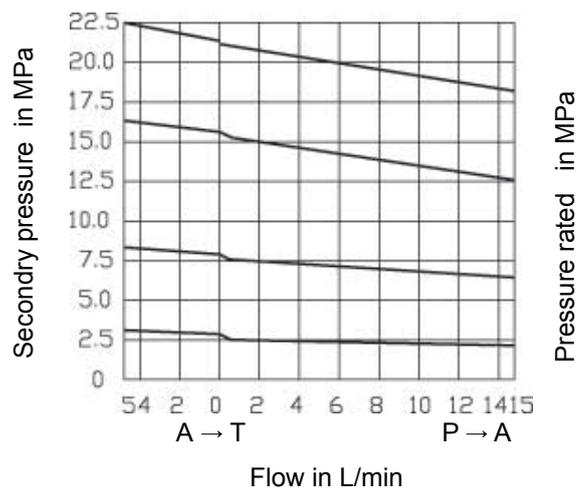
25 = Max. sequence pressure 2.5 MPa  
75 = Max. sequence pressure 7.5 MPa  
150 = Max. sequence pressure 15 MPa  
210 = Max. sequence pressure 21 MPa  
315 = Max. sequence pressure 31.5 MPa  
(31.5 MPa unit only available without non-return valve)

## Technical data

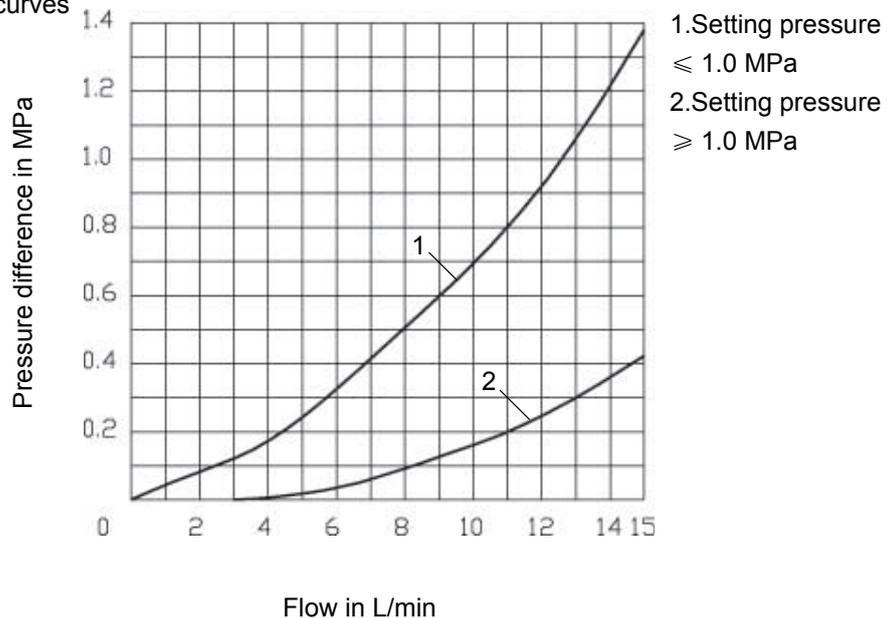
Max. operating pressure( Port P)	(MPa)	up to 31.5
Max. secondary pressure (Port A)	(MPa)	up to 21.0;without non-return valve up to 31.5
Max. back pressure( Ports T (Y))	(MPa)	up to 6.0
Max. flow	(L/min)	up to 15
Pressure fluid		Mineral oil (for NBR seal)or phosphate ester(for FPM seal)
Viscosity range	(mm <sup>2</sup> /s)	-10~800
Pressure fluid - temperature range	(°C)	-30 to +80
Degree of contamination	(µm)	Maximum permissible degree of contamination of the fluid is to NAS 1638 class 9.
Weight	(Kg)	approx. 1.0

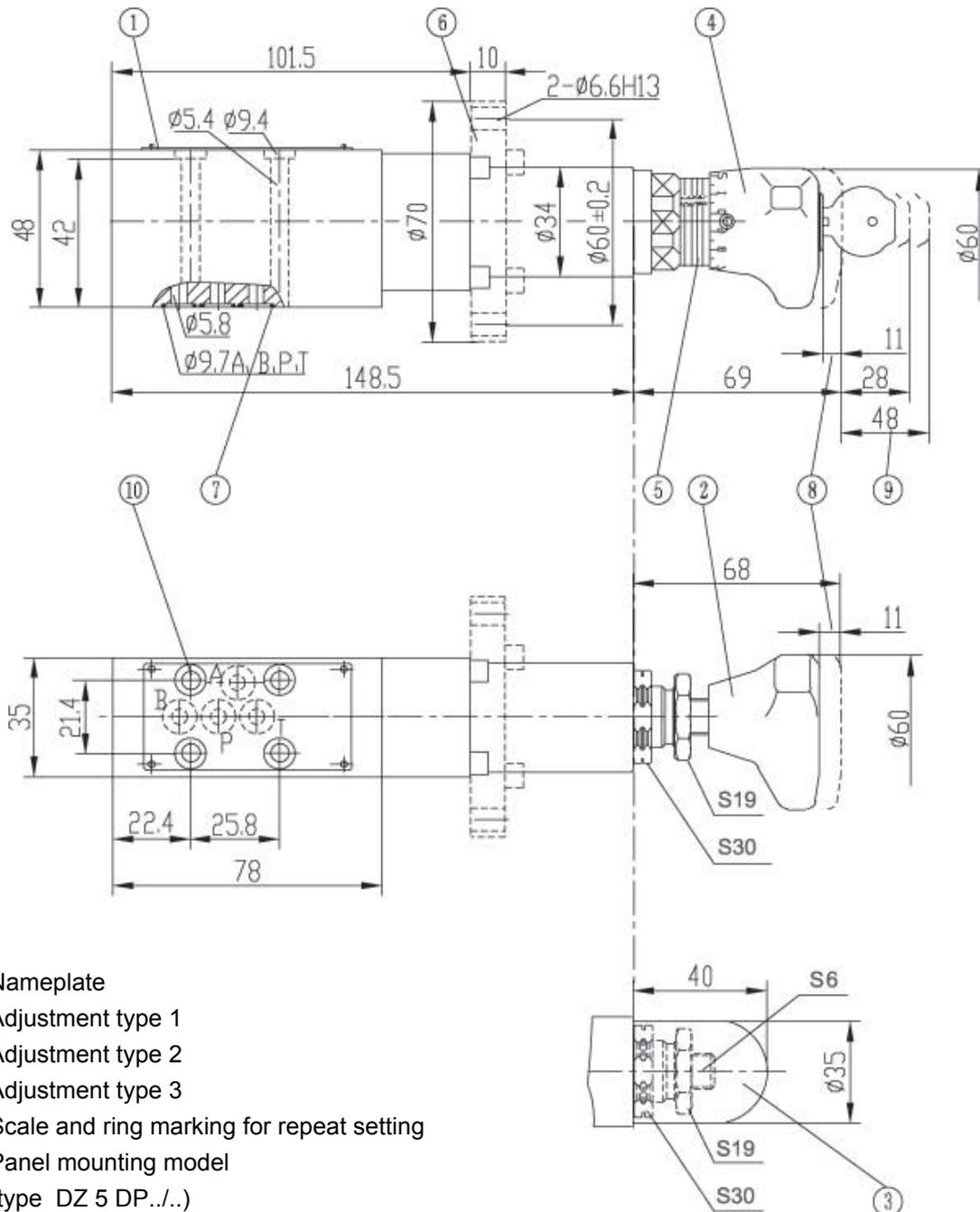
## Characteristic curves (measured at $n = 41 \text{ mm}^2/\text{s}$ and $t = 50^\circ\text{C}$ )

$p_A$ - $q_V$  characteristic curves



$\Delta p$  -  $Qq$  characteristic curves





- 1 Nameplate
- 2 Adjustment type 1
- 3 Adjustment type 2
- 4 Adjustment type 3
- 5 Scale and ring marking for repeat setting
- 6 Panel mounting model  
(type DZ 5 DP../...)
- 7 O-ring 7 x 1,5  
for ports P, A, B(X) and T(Y)
- 8 Max. stroke
- 9 Space required to remove key
- 10 Valve fixing hole

Subplates: see page 153

G115/01 (G1/4") G115/02 (M14 x 1.5)

G96/01 (G1/4") G96/02 (M14 x 1.5)

must be ordered separately

Valve fixing screws:

M5x5-10.9(GB/T70.1-2000);  $M_A = 9.0 \text{ Nm}$



Required surface finish of mating piece

## **ANNOTATIONS :**

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### **HUADE AMÉRICA**

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