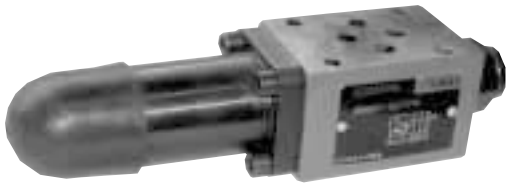
BEIJING HUADE HYDRAULIC INDUSTRIAL GROUP CO.,LTD.	Pressure reducing valve, direct operated, sandwich plate,type ZDR6D...30B/			RE 26569/12.2004
	Size 6	up to 21 MPa	up to 30L/min	Replaces：RE26569/05.2001

Features:

- Sandwich plate design
- Porting pattern to DIN 24 340, from A,ISO 4401 and CETOP-RP 121H
- 4 pressure ratings
- 3 adjustment elements:
  - · Rotary knob
  - · Sleeve with hexagon and protective cap
  - · Lockable rotary knob with scale
- Pressure reduction in ports A,P,B
- Check valve, optional



Functional description, section

Pressure reducing valves type ZDR 6 D.. are 3-way direct operated pressure reducing valves of sandwich plate design with a pressure relief function on the secondary side. It is used to reduce the system pressure. The pressure reducing valve basically consists of the housing (1), the control spool (2), a compression spring (3) and the adjusment element (4) as well as with an optional check valve.

The secondary pressure is set by the pressure adjustment element (4).

Model "DA"

At rest, the valve is normally open, and fluid can flow unhindered from port A to port A1. The pressure in port A1 is at the same time via the control line (5) present at the spool area opposite to the compression spring (3). When the pressure in port A1 exceeds the pressure level set at the compression spring (3) the control spool (2) moves into the control position against the compression spring (3) and holds the set pressure in port A1 constant. The control pressure and pilot oil are taken from port A1 via control line (5).

If the pressure in port A1 rises still further due to external forces, the control spool (2) is moved still further towards the compression spring (3). This causes a flow path to be opened at port A through line(6) on the control spool (2) to tank. Sufficient fluid then flows to tank to prevent any further rise in pressure. The spring chamber (7) is always drained to tank externally via drilling (6) to port T (Y).

A pressure gauge connection (8) permitts the secondary pressure at the valve to be monitored.

It is only possible to fit a check valve for free flow in ports A1 to A in version "DA".

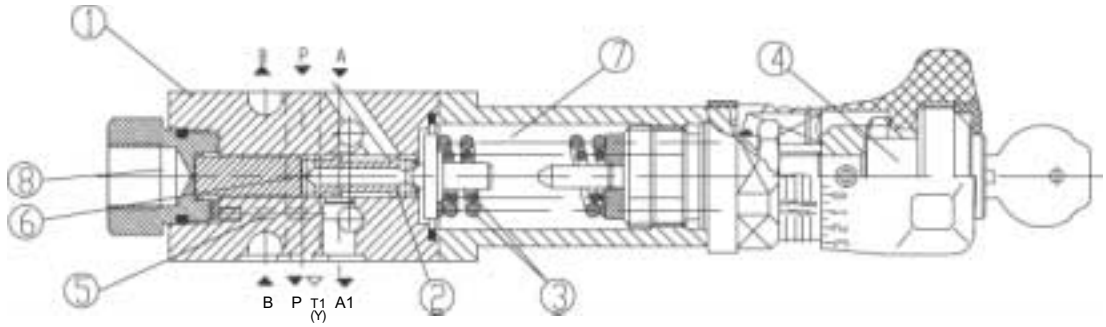
Models "DP" and "DB"

In model "DP", the pressure is reduced in port P1. The control pressure and the pilot oil is taken internally from port P1.

In model "DB", the pressure in port P1 is reduced, and the pilot oil taken from port B.

Attention!

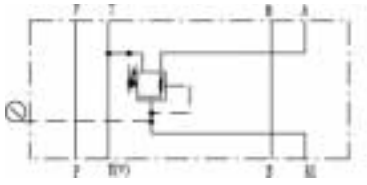
In model DB, it must be ensured, that the pressure in port B is not higher than the set pressure when the directional valve is in position P to A. Otherwise, pressure in port A will be reduced.



Type ZDR6DA...30B/...YM

Symbols

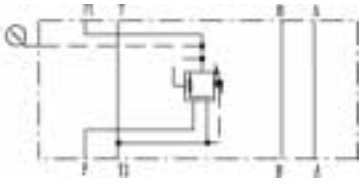
ZDR6DA...-30B/...YM...



ZDR6DA...-30B/...Y...



ZDR6DP...-30B/...YM...



Ordering details

Z	DR	6	D			-	30	B	/		Y			*

Sandwich plate design = Z

Pressure redcing valve = DR

Nominal Size 6 = 6

Direct operated = D

Pressure reduction in port A = A
Pressure reduction in port P = P

Adjustment element
Rotary knob = 1
Hex. head screw with protective cap = 2
Lockable rotary knob with scale = 3

Series 30 to 39 = 30
(30 to 39 = unchanged installation and connection dimensions)

B= Technology of Beijing Huade Hydraulic

25 = max. secondary pressure 2.5 MPa
75 = max. secondary pressure 7.5 MPa
150 = max. secondary pressure 15.0 MPa
210 = max. secondary pressure 21.0 MPa

Y= Pilot oil feed internal, drain external

no code. = with check valve
(inot possible for pressure reduction in port A
M = without check valve

no code. = mineral oils
V = phosphate ester

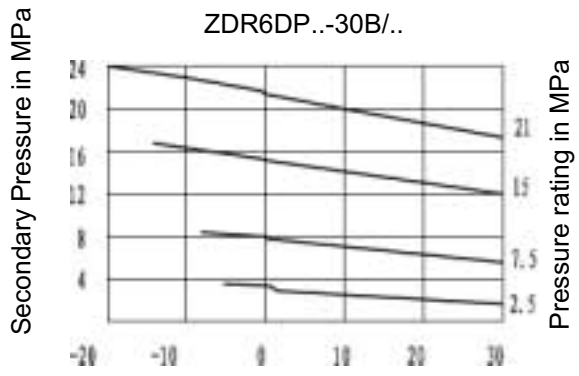
Further details in clear text

Technical data (For applications outside these paramters,plese consult us!)

Pressure fluid		Mineral oil (for NBR seal)or phosphate ester(for FPM seal)
Pressure fluid-temperature range	(℃)	-30 to +80
Viscosity range	(mm^2/s)	10 to 800
Degree of fluid contamination	(μm)	Maximum permissible degree of contamination of the fluid is to NAS 1638,class9. $\beta_{10} \geqslant 75$
Max.operating Pressure (inlet)	(MPa)	up to 31.5
Secondary pressure(output)	(MPa)	up to 21
Back pressure port	(MPa)	up to 6
Max.flow	(L/min)	up to 30
Weight	(kg)	approx.1.2

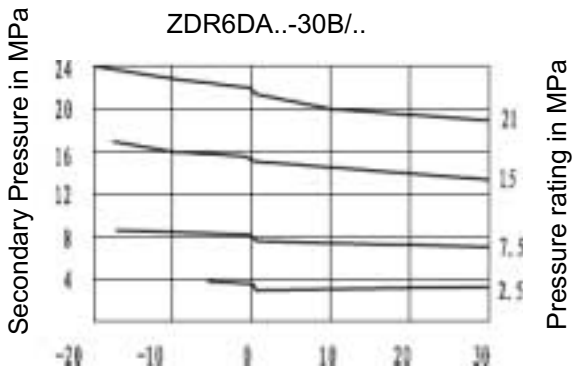
Characteristic curves (measured at ν =41mm^2/s and t=50℃)

ZDR6DP..-30B/..



P1 → T(Y) Flow in L/min P → P1

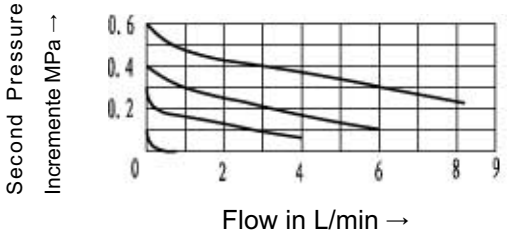
ZDR6DA..-30B/..



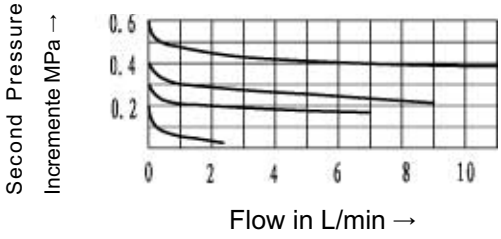
A1 → T(Y) Flow in L/min A → A1

Characteristic curves (measured at ν =41mm²/s and t=50℃)

Type ZDR 6 DP..-30B/..

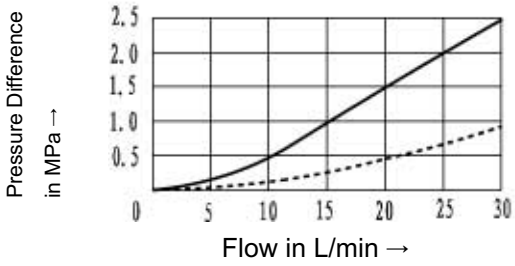


Type ZDR 6 DA..-30B/..

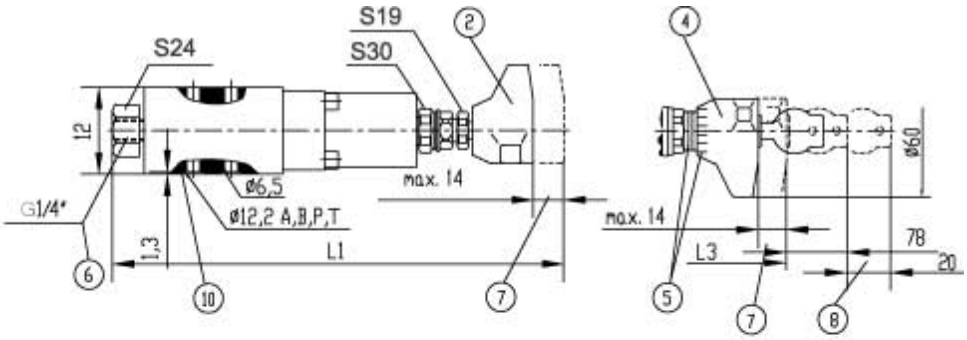


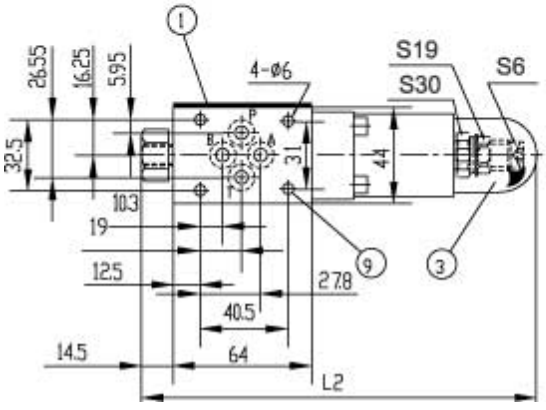
Settable pressure: <1MPa >1MPa

Check valve chacteristic curves Δ P-Q

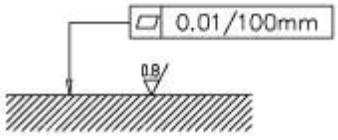


Unit dimensions (**Dimensions in mm**)





Required surface finish of mating piece



type	L1 max.	L2	L3 max.
ZDR6DA...30B/...	208	182	203
ZDR6DP...30B/...	196	170	191

1. Nameplate
2. Adjustment1
3. Adjustment2
4. Adjustment3
5. Adjusting scale set
6. Pressure gauge connection
7. Stroke
8. Space required to remove key
9. Fixing screw hole
10. O-ring 9.25X1.78, for ports A, B, P, T.

NOTICE

1. **The fluid must be filtered. Minimum filter fineness is 20 μm.**
2. **The tank must be sealing up and an air filter must be installed on air entrance.**
3. **Products without subplate when leaving factory, if need them, please ordering specially.**
4. **Valve fixing screws must be high intensity level (class 10.9). Please select and use them according to the parameter listed in the sample book.**
5. **Roughness of surface linked with the valve is required to** 

.
6. **Surface finish of mating piece is required to 0.01/100mm.**

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