BEIJING HUADE HYDRAULIC INDUSTRIAL GROUP CO.,LTD.	**Pressure reducing valve, direct operated, type DR 10 DP**			RE 26897/12.2004
	Size 10	up to 21MPa	up to 80L/min	Replaces: RE26897/05.2001

Features:

- For subplate mounting
- 4 pressure ranges
- 4 setting elements:
  - · Rotary knob
  - · Hex. head sleeve with protective cap
  - · Lockable rotary knob with scale
  - · Rotary knob with scale
- With pressure gauge port
- Optional non return valve
- Porting pattern to DIN 24 340, form D,ISO 5781 and CETOP-RP 121H

Functional, section

The valve type DR 10 DP is a direct operated valve of 3 way design, with a pressure relief function on the reduced pressure side.

Pressure setting is by means of the pressure setting element (1).

At rest, the valve is normally open, and fluid can flow unhindered from port B to port A. Pressure in port A is also present on the end of the spool (2), via control line (4), opposing the compression spring (3). When the pressure in port A reaches the pressure level set at spring (3), spool (2) moves to the control position and holds the pressure in port A constant.

Fluid to control the valve is taken from port A via control drilling

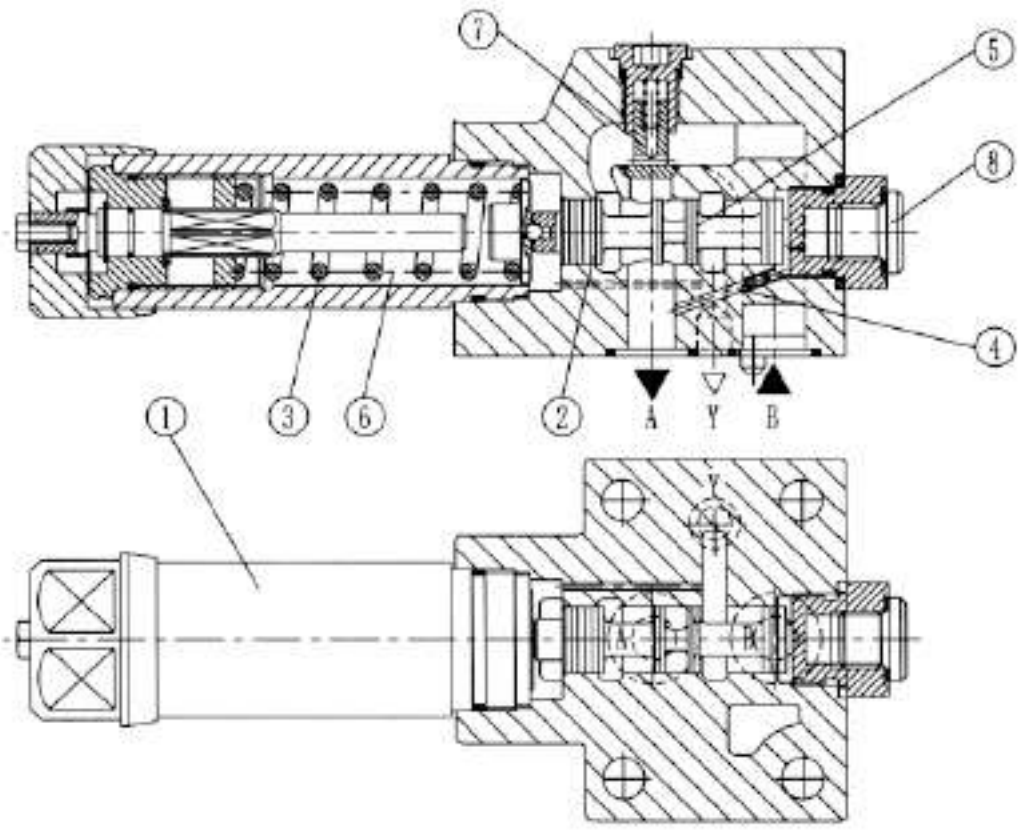
If the pressure in port A rises still further due external forces, the spool (2) is moved still further towards the compression spring (3).

This causes a flow path to be opened over control land (5) in the control spool (2) to tank (port Y) . Sufficient fluid then flows to tank to prevent any further rise in pressure.

The spring chamber (6) is drained to tank externally via port Y.

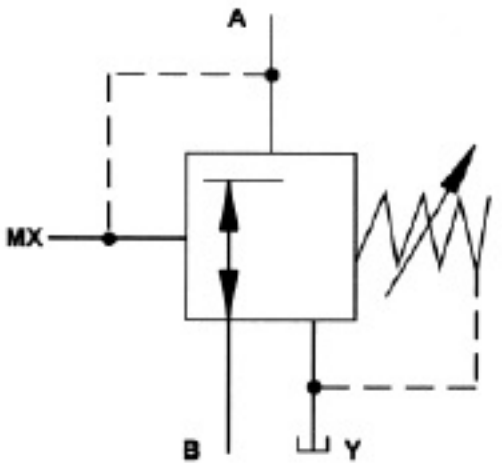
An optional non return valve (7) is available to allow free flow from port A to port B.

A pressure gauge connection (8), permits the secondary pressure to be monitored.

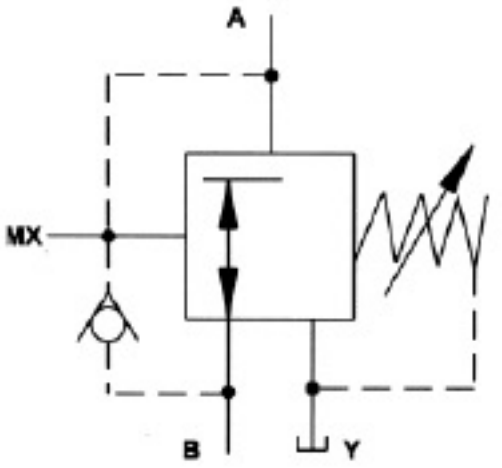


DR 10 DP 1-40B/...Y...

Symbols



Type "YM"
Pilot oil supply internal
drain external
without check valve



Type "Y"
Pilot oil supply internal
drain external
with check valve

Ordering details

DR	10	D	P		- 40	B	/		Y			*

Size 10 =10

Direct operated pressure reducing valve size 6

Subplate mounting =P

Adjustment element
Rotary knob = 1
Set screw with hexagon and protective cap = 2
Lockable rotary knob with scale = 3

Series 40 to 49 = 40
(40 to 49: unchanged installation and connection dimensions)

Technology of Beijing Huade Hydraulic =B

25 = Max. secondary pressure 2.5 MPa
75 = Max. secondary pressure 7.5 MPa
150 = Max. secondary pressure 15 MPa
210 = Max. secondary pressure 21 MPa

Y = Pilot oil supply internal, drain external

No code = With check valve
M = Without check valve

No code. = mineral oils
V = phosphate ester

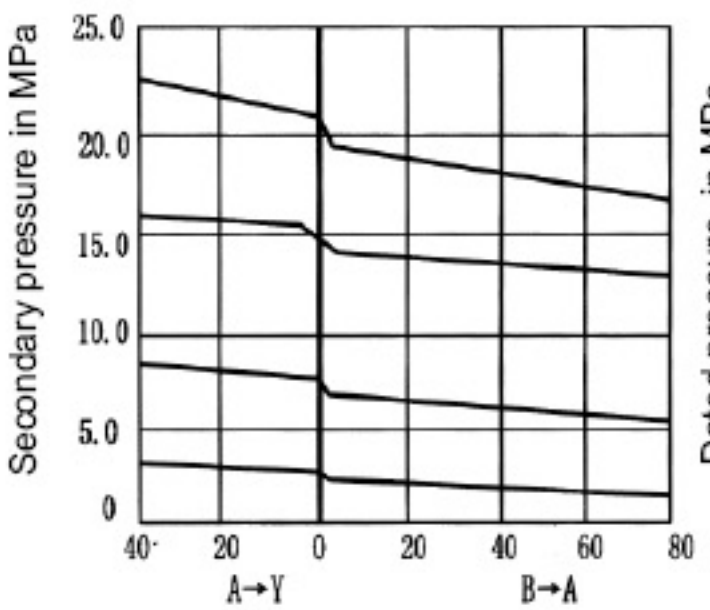
Further details in clear text

Technical data

Max. operating pressure(Port P)	(MPa)	up to 31.5
Max. secondary pressure(Port A)	(MPa)	up to 2.5、up to 7.5、up to 15.0、up to 21.0、up to 31.5
Max. back pressure(Ports T (Y))	(MPa)	up to 16.0
Max. flow	(L/min)	up to 80
Pressure fluid		Mineral oil (for NBR seal)or phosphate ester(for FPM seal)
Viscosity range	(mm^2/s)	10~800
Pressure fluid - temperature range	(℃)	-30 to +80
Degree of contamination	(μm)	Maximum permissible degree of contamination of the fluid is to NAS 1638 class 9.
Weight	(Kg)	approx. 3

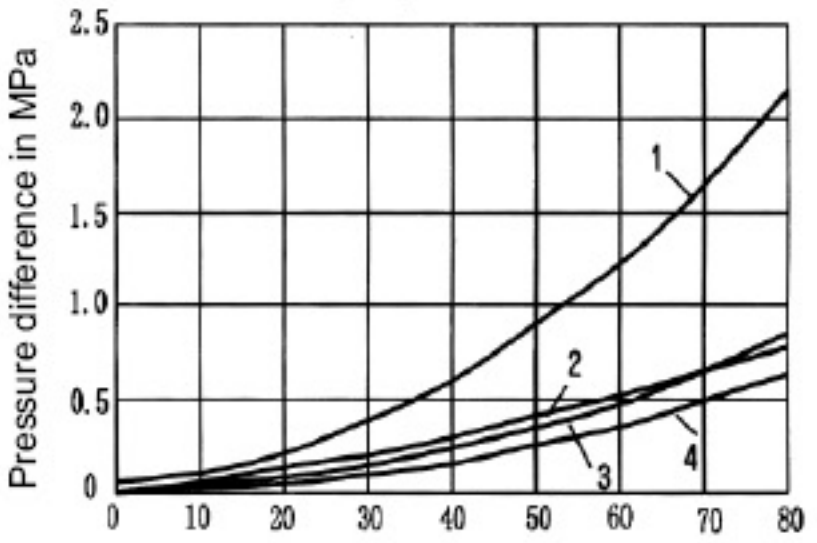
Characteristic curves (measured at V = 41 mm^2/s and t = 50℃)

p_A-q_V characteristic curves



Flow in L/min

$\triangle_p$ - Q_q characteristic curves



Flow in L/min

Note:

For any particular setting range (spring selection) all flow curves at pressure settings lower than the maximum remain parallel to the maximum setting curve of that range.

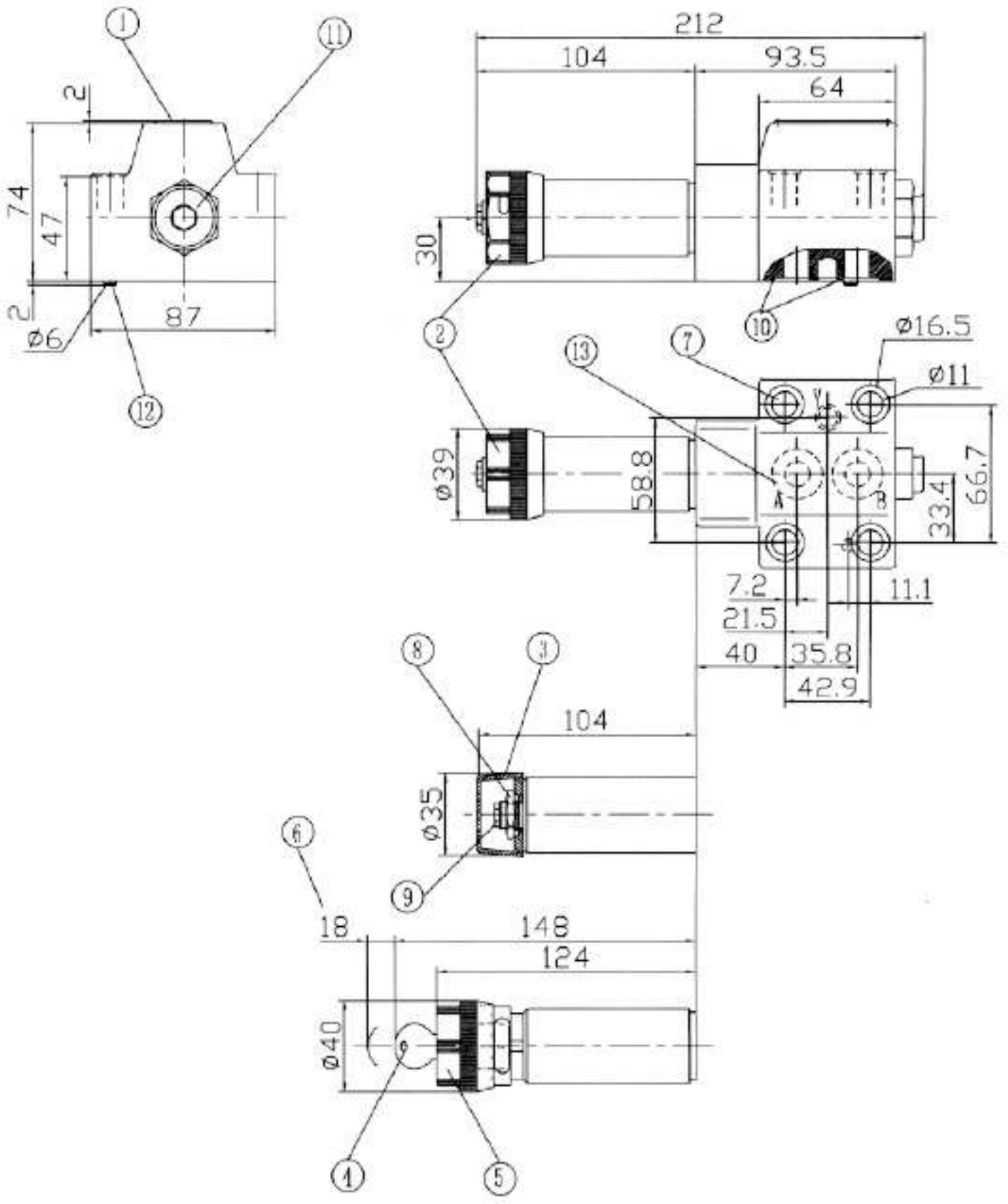
1 Pressure drop / flow curve A to Y via non-return valve

2 Pressure drop / flow curve B to A

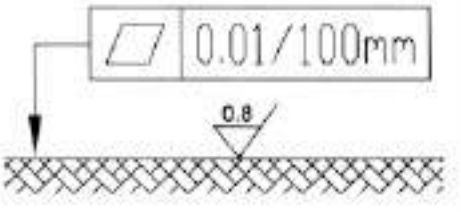
3 Pressure drop via check valve only

4 △p over the check valve and fully open control cross section

Unit dimensions:type DR10DP **(Dimensions in mm)**



1. Nameplate
2. Adjustment element 1
3. Adjustment element 2
4. Adjustment element 3
5. Adjustment element 7
6. Space required to remove key
7. Valve fixing holes
8. Lock nut 24 A/F
9. Hexagon 10 A/F
10. O-ring 17.12 x 2.62 for ports A, B, 9.25 x 1.78 for ports Y
11. Pressure gauge connection port G 1/4;
12. Locating pin
13. Subplates see page 150
    G460/01(G3/8″)
    G460/02(M18X1.5)
    G461/01(G1/2″)
    G461/02(M22X1.5)
    Valve fixing screws (GB/T70.1-2000):
    M10X60-10.9 M_A =75Nm



Required surface finish of mating piece

The specified data is for product description purposes only and may not be deemed to be guaranteed unless expressly confirmed in the contract.

THM
THM Huade Hydraulics (P) Ltd
F-127, Focal Point, Phase VIII
Ludhaiana-141010, India
Phone: 0091+161+2672777, Fax: 0091+161+2672778
www.thmhuade.com
info@thmhuade.com, sales@thmhuade.com