LONG LI HYDRAULIC

Pressure reducing valve direct operated, sandwich plate type ZDR10D...40B/

Sizes 10 up to 21MPa up to 50 L/min

Features:
– Sandwich plate design
– Pressure reduction in ports A, B or P
– 3 adjustment elements:
. Rotary knob
. Hex. head screw with protective cap
. Lockable rotary knob with scale
– 4 pressure ratings
– Check valve, optional

Functional description, section

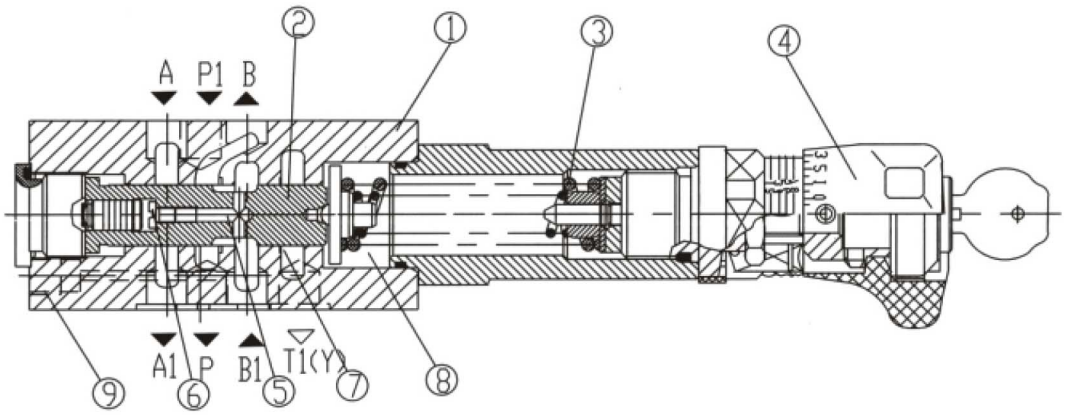
The pressure reducing valve type ZDR 10 D.. is a 3–way direct operated valve of sandwich plate design with a pressure relief function on the secondary side. It is used to reduce the system pressure.

The pressure reducing valve basically consists of the housing (1), the control spool (2), a compression spring (3),and the adjustment (4) as well as 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 A1 via control land (6)on the control spool (2) and housing (1) to tank (port TB).Sufficient fluid then flows to tank to prevent any further rise in pressure.The spring chamber (7) is always drained to tank externally via portTA .A pressure gauge connection (8) permits 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!

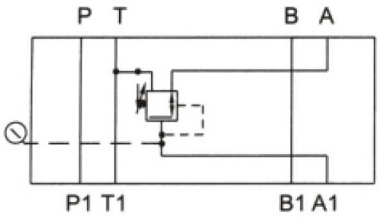
When the directional valve is in the switched position P to A, pressure in port B must not exceed the set secondary pressure.Otherwise, pressure in port A will be reduced. If used without a directional valve, TA and TB must be interconnected (e.g. in the cover plate).



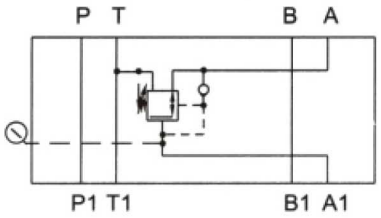
Type ZDR10D...40B/...

Symbol

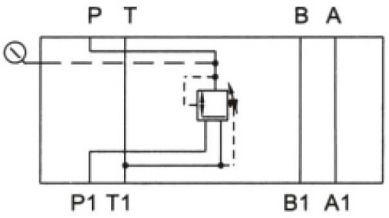
ZDR10DA...-40B/...YM...



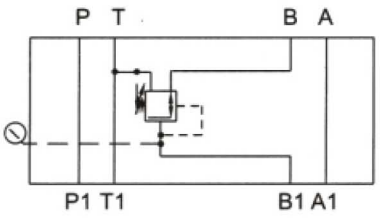
ZDR10DA...-40B/...Y...



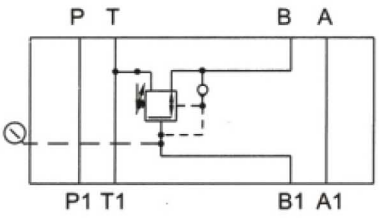
ZDR10DP...-40/B...YM...



ZDR10DB...-40B/...YM...



ZDR 10DB...-40B/...Y...



Ordering Codes

Z	DR	10	D			—	40	/		Y			*

Sandwich plate =Z

Pressure redcing valve =DR

Size 10 =10

Direct operated =D

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

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

Series40 to 49 (40 to49:
unchanged installation and connection dimensions) =40

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

Y = Pilot oil feed internal
Pilot oil drain external

No code = with check valve
(not possible for pressure reduction in port A)
M = without check valve

No code = Mineral oil
V = Phospate ester

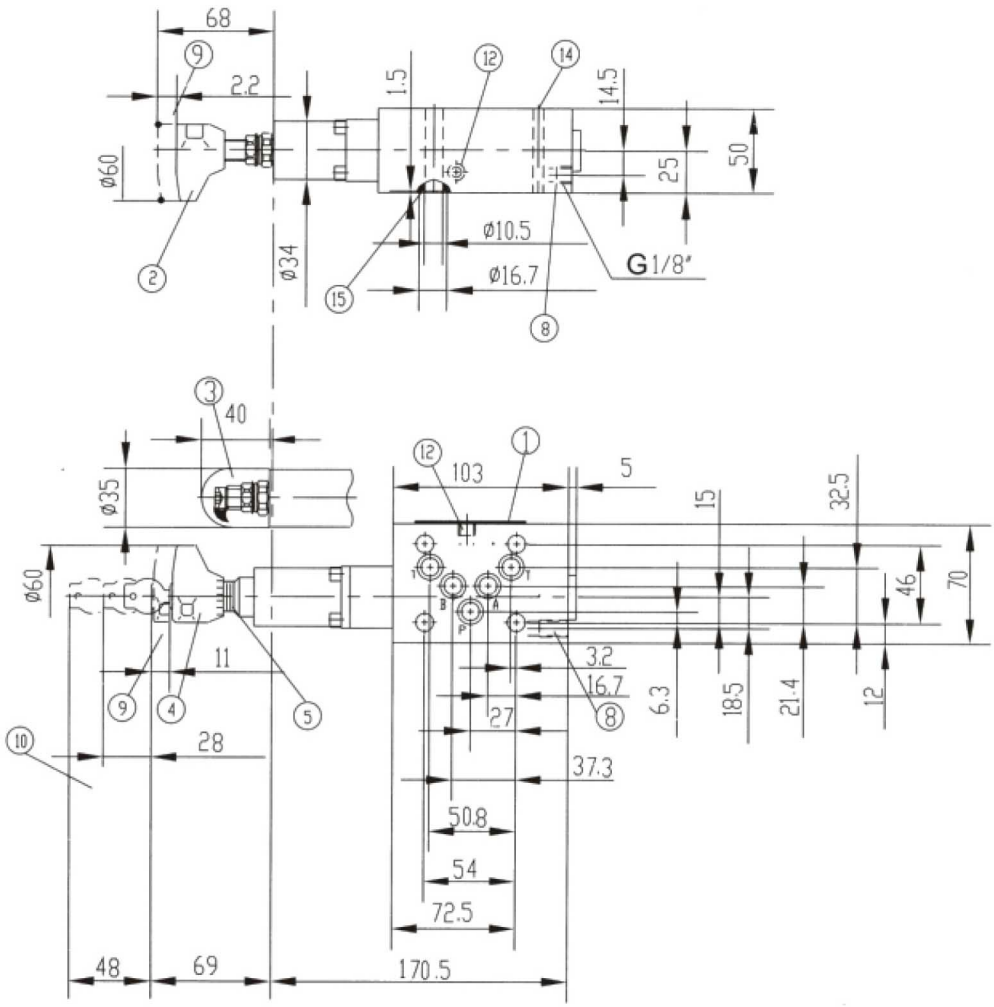
Further details in clear text

Technical data

Weight	kg	Approx2.8
Fluid		Mineral oil or Phospate ester
Oil temperature range	℃	–2 0 ~ +8 0
Viscosity range	mm^2/s	10 ~ 800
Degree of fluid contamination	MPa	Max. permissible degree of contamination of the fluid is to NAS 1638,class 9. β 10≥75
Max. Operating pressure	MPa	31,5
Secondary pressure	Mpa	to 21
Back pressure port t	L / min	to 15
Max. Flow		50

Unit dimensions: type ZDR10DB

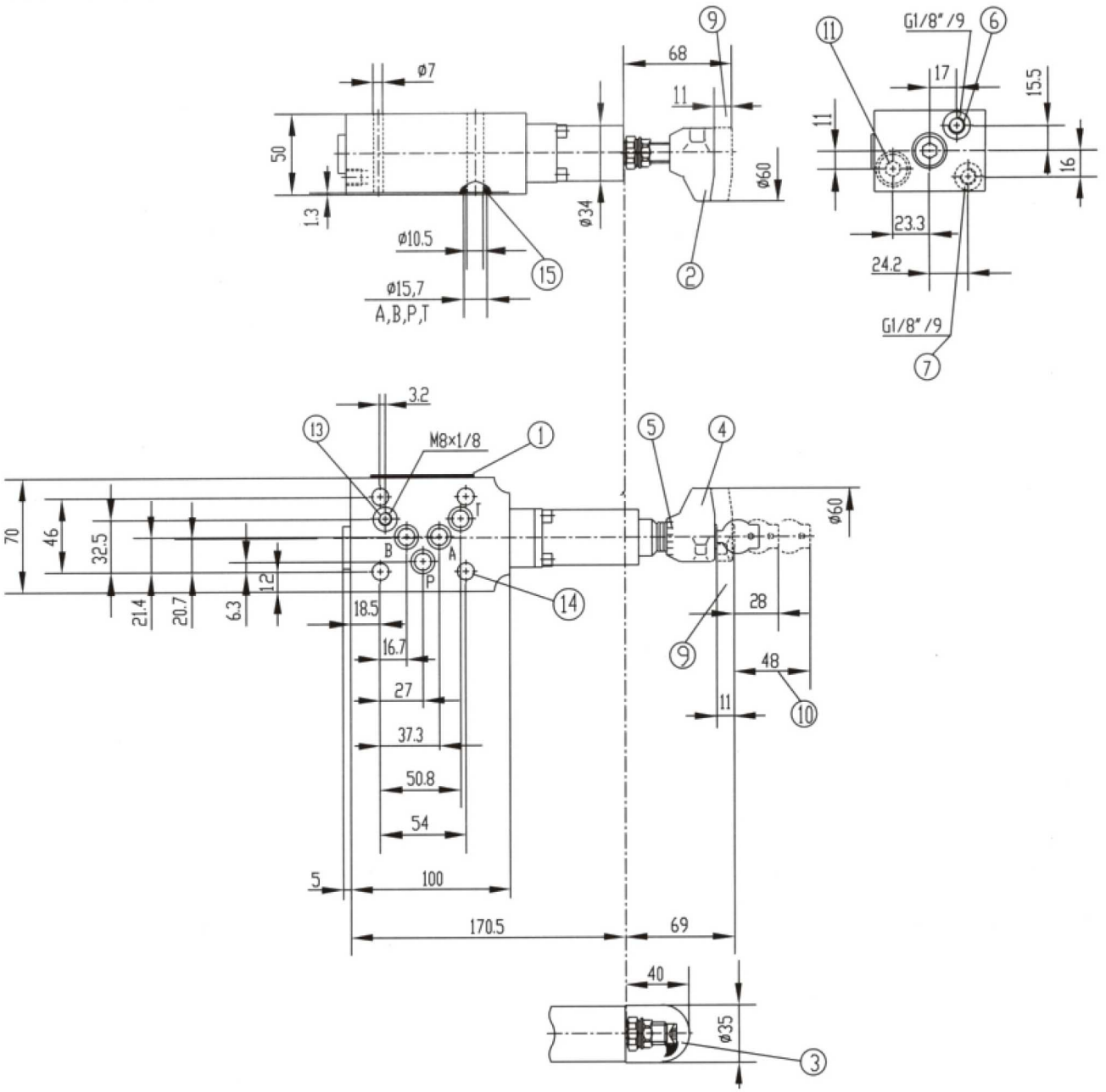
Dimensions in mm



Unit dimensions

Dimensions in mm

ZDR10DA or ZDR10DP



1.Name plate
2.Adjustment 1
3.Adjustment 2
4.Adjustment 3
5.Repeat adjusting scale
6.A pressure gauge connection for ZDR 10DA
7.A pressure gauge connection for ZDR 10DA
8.A pressure gauge connection for ZDR 10DA
9.Max. distance of adjustment
10.Optional check valve for ZDR 10DA
11.Optional check valve for ZDR 10DA
12.When Max.seconary pressure is 2.5MPa,
13.It should stem on this hole
when 7.5MPa,15MPa and 21MPa,
it can be used as a leakage hole.
This hole can use as chamber "T"
Fixing screw hole
14.Space required to remove key
15.O-ring12×2, for port A. B. P and T

Required surface finish of mating piece