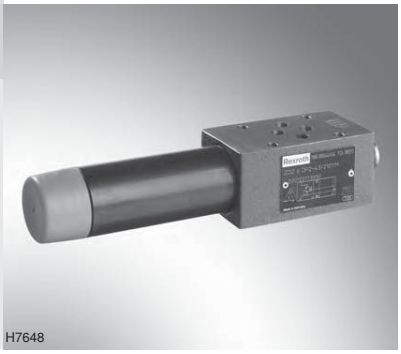
Pressure sequence valve, direct operated

RE 26088/01.09 1/8

Type ZDZ

Size 6
Component series 4X
Maximum operating pressure 210 bar
Maximum flow 60 l/min


H7648

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Features

- Sandwich plate valve
- Porting pattern according to DIN 24340 form A (**without** locating bore), (standard)
- Porting pattern according to ISO 4401-03-02-0-05 (**with** locating bore), (order designation .../**60**)
- Subplates see data sheet RE 45052 (separate order)
- 4 pressure ratings
- 4 adjustment types, optionally:
  - Rotary knob
  - Threaded pin with hexagon and protective cap
  - Lockable rotary knob with scale
  - Rotary knob with scale
- Check valve, optional

Ordering code

Z	DZ	6	D		–4X/	Y				*

Sandwich plate valve

Pressure sequence valve

Size 6 = **6**

Direct operated = **D**

Pressure reduction in channel P = **P**

Pressure reduction in channel A = **A**

Adjustment type

Rotary knob = **1**

Threaded pin with hexagon and protective cap = **2**

Lockable rotary knob with scale [1] = **3**

Rotary knob with scale = **7**

Component series 40 to 49 = **4X**
(40 to 49: unchanged installation and connection dimensions)

Pressure rating

Maximum sequencing pressure 25 bar = **25**

Maximum sequencing pressure 75 bar = **75**

Maximum sequencing pressure 150 bar = **150**

Maximum sequencing pressure 210 bar = **210**

Y = Pilot oil supply internal, pilot oil return external

No code = With check valve [3]
M [2] **=** Without check valve

Seal material

No code = NBR seals
V = FKM seals
(other seals at request)
Attention!
Observe compatibility of seals with hydraulic fluid used!

No code = **Without** locating bore
/60 [4] **=** **With** locating bore

Further details in the plain text

[1] H key with material no. **R900008158** is included in the delivery.

[2] Please enter for version “P”

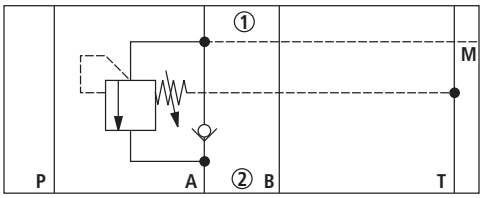
[3] Only for version “A”

[4] Locating pin ISO 8752-3x8-St, material no. **R900005694** (separate order)

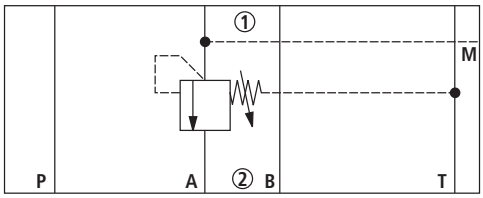
Standard types and components are contained in the EPS (standard price list).

Symbols (① = device side, ② = plate side)

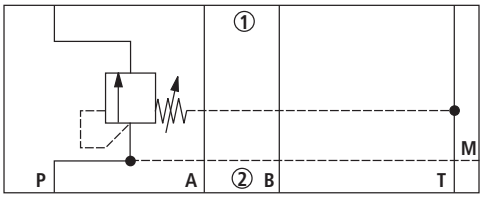
Type ZDZ 6 DA.-4X/.Y…



Type ZDZ 6 DA.-4X/.YM…



Type ZDZ 6 DP.-4X/.YM…



Function, section

The valve type ZDZ is a direct operated pressure sequence valve in sandwich plate design. It is used for the pressure-dependent sequencing of a second system. The sequencing pressure is set using the adjustment element (4).

Version “P”

The compression spring (3) holds the control spool (2) in the initial position - the valve is blocked. Via the pilot line (5), the pressure in channel P② is applied to the spool face of the control spool (2) opposite the compression spring (3).

When the pressure in channel P② reaches the set value of the compression spring (3), the control spool (2) is pushed to the left and the connection P② to P① is opened. The system connected at channel P① is sequenced without a drop of the pressure in channel P②.

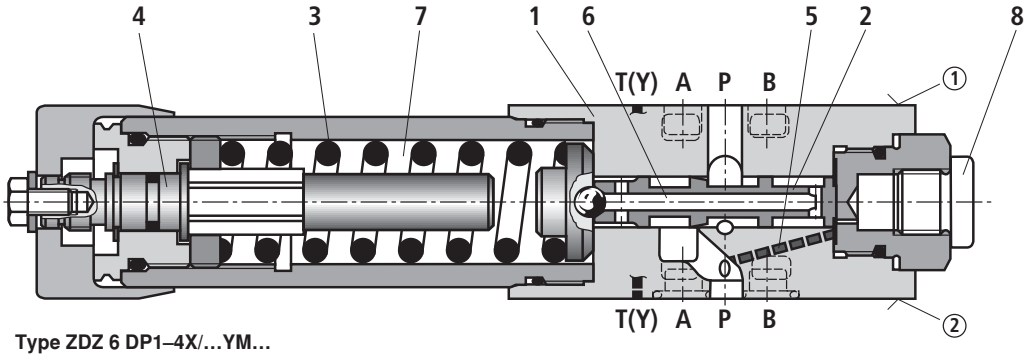
The pilot oil return from the spring chamber (7) is always effected externally via the bore (6) to channel T (Y).

A pressure gauge connection (8) allows checking of the sequencing pressure at the valve.

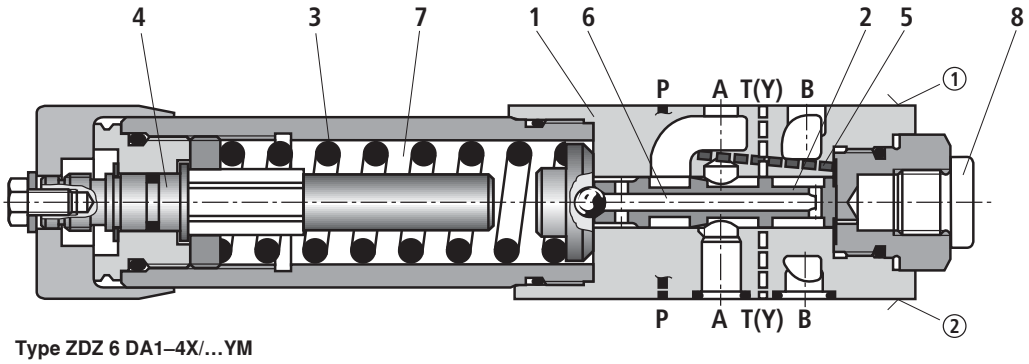
Version “A”

Here, the pressure is sequenced in channel A. Control signal and pilot fluid are provided internally, from channel A①.

For free return flow of the hydraulic fluid from A② to A①, a check valve can be installed as option.



Type ZDZ 6 DP1–4X/…YM…



Type ZDZ 6 DA1–4X/…YM

① = Component side
② = Plate side

Technical data (For applications outside these parameters, please consult us!)

general

Weight	kg	approx. 1.2
Installation position		any
Ambient temperature range	°C	–30 to +80 (NBR seals) –20 to +80 (FKM seals)

hydraulic

Maximum operating pressure – Port P, A, B	bar	210
– Port T (Y)	bar	160
Maximum sequencing pressure (adjustable)	bar	25; 75; 150; 210
Maximum flow	l/min	60
Hydraulic fluid		Mineral oil (HL, HLP) according to DIN 51524 [1]; quickly biodegradable hydraulic fluids according to VDMA 24568 (also see RE 90221); HETG (rape seed oil) [1]; HEPG ((polyglycols) [2]; HEES (synthetic esters) [2]; other hydraulic fluids upon request
Hydraulic fluid temperature range	°C	–30 to +80 (NBR seals) –20 to +80 (FKM seals)
Viscosity range	mm^2/s	10 to 800
Maximum permitted degree of contamination of the hydraulic fluid - cleanliness class according to ISO 4406 (c)		Class 20/18/15 [3]

[1] Suitable for NBR and FKM seals

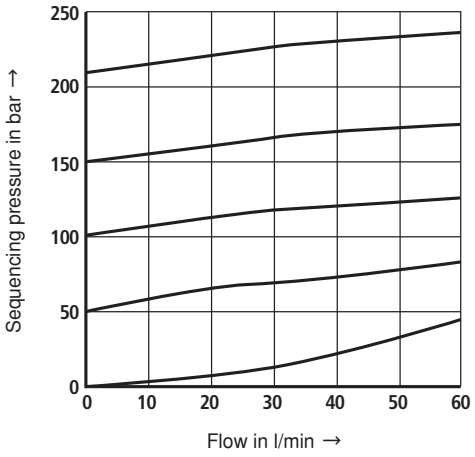
[2] Only suitable for FKM seals

[3] The cleanliness classes specified for the components must be adhered to in hydraulic systems. Efficient filtration prevents malfunctions and at the same time prolongs the service life of components.

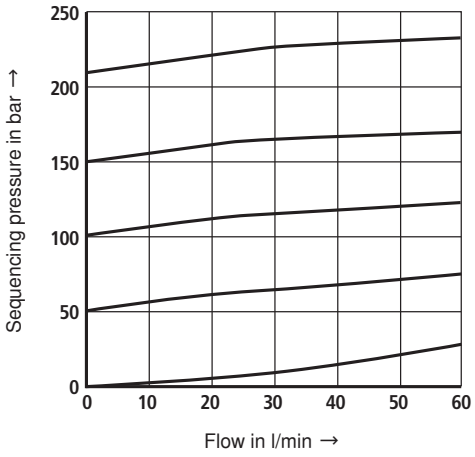
For the selection of the filters, see data sheets RE 50070, RE 50076, RE 50081, RE 50086, RE 50087 and RE 50088.

Characteristic curves (measured with HLP46, ϑ_{oil} = 40 °C ± 5 °C)

Version "P"
***p*-q_V characteristic curves**

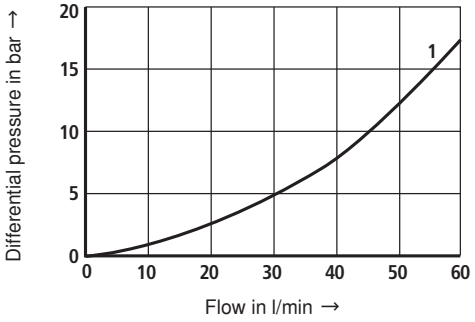


Version "A"
***p*-q_V characteristic curves**

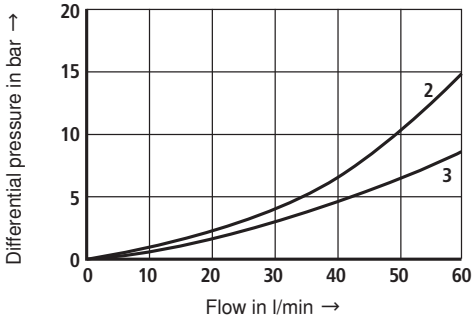


The characteristic curves apply to initial pressure = zero in the entire flow range!

Version "P"
Δp-q_V characteristic curves



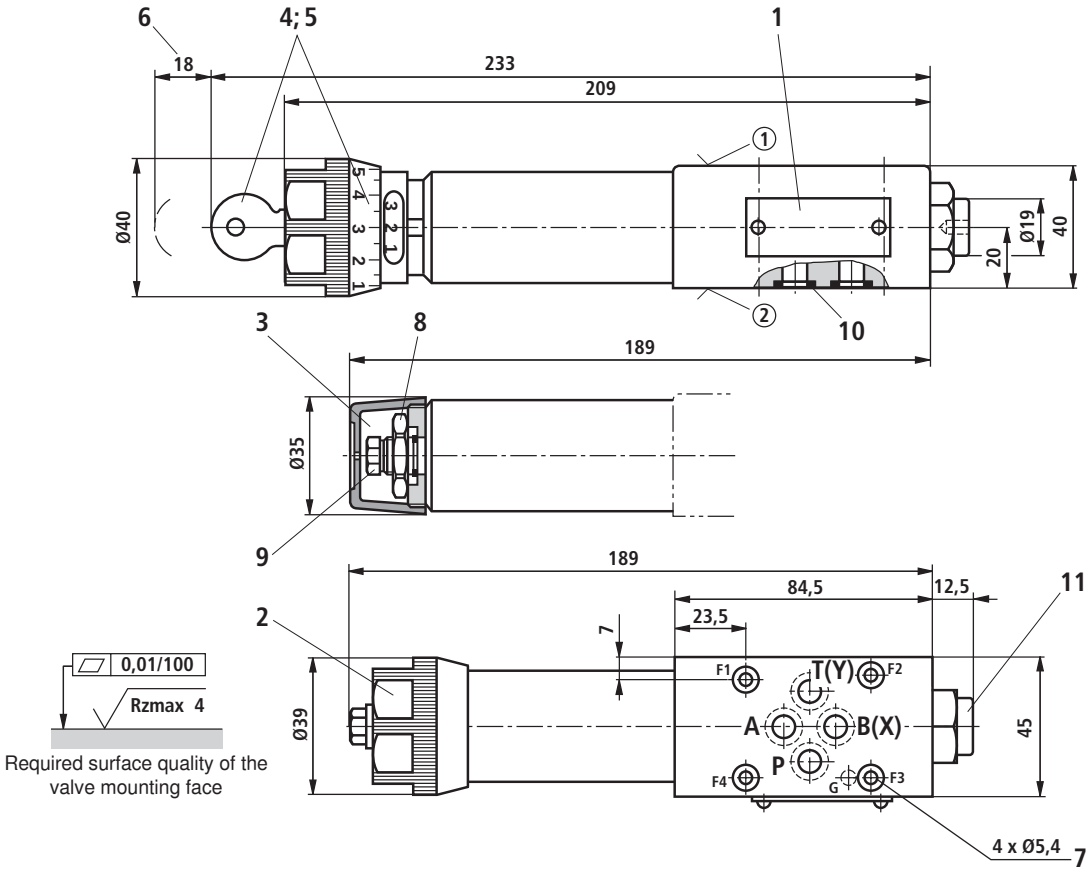
Version "A"
Δp-q_V characteristic curves



1 P① to P②

2 A① to A②
3 Via check valve A② to A①

Unit dimensions: Version “P” (dimensions in mm)



Required surface quality of the valve mounting face

① Device side – porting pattern according to DIN 24340 form A (**without** locating bore), or ISO 4401-03-02-0-05 (**with** locating bore Ø4 x 4 mm deep)

② Plate side – porting pattern according to DIN 24340 form A (**without** locating bore), or ISO 4401-03-02-0-05 (**with** locating bore for locating pin ISO 8752-3x8-St, material no. **R900005694**, separate order)

1 Nameplate
2 Adjustment type “1”
3 Adjustment type “2”
4 Adjustment type “3”
5 Adjustment type “7”
6 Dimensions required to remove the key
7 Valve mounting bores
8 Lock nut 24 A/F
9 Hexagon 10 A/F
10 Identical seal rings for ports A②, B②, P②, T②(Y)
11 Pressure gauge connection G1/4, 12 deep; internal hexagon 6 A/F

Subplates according to data sheet RE 45052 (separate order)

(**without** locating hole)	G 341/01 (G1/4)
	G 342/01 (G3/8)
	G 502/01 (G1/2)
(**with** locating hole)	G 341/60 (G1/4)
	G 342/60 (G3/8)
	G 502/60 (G1/2)

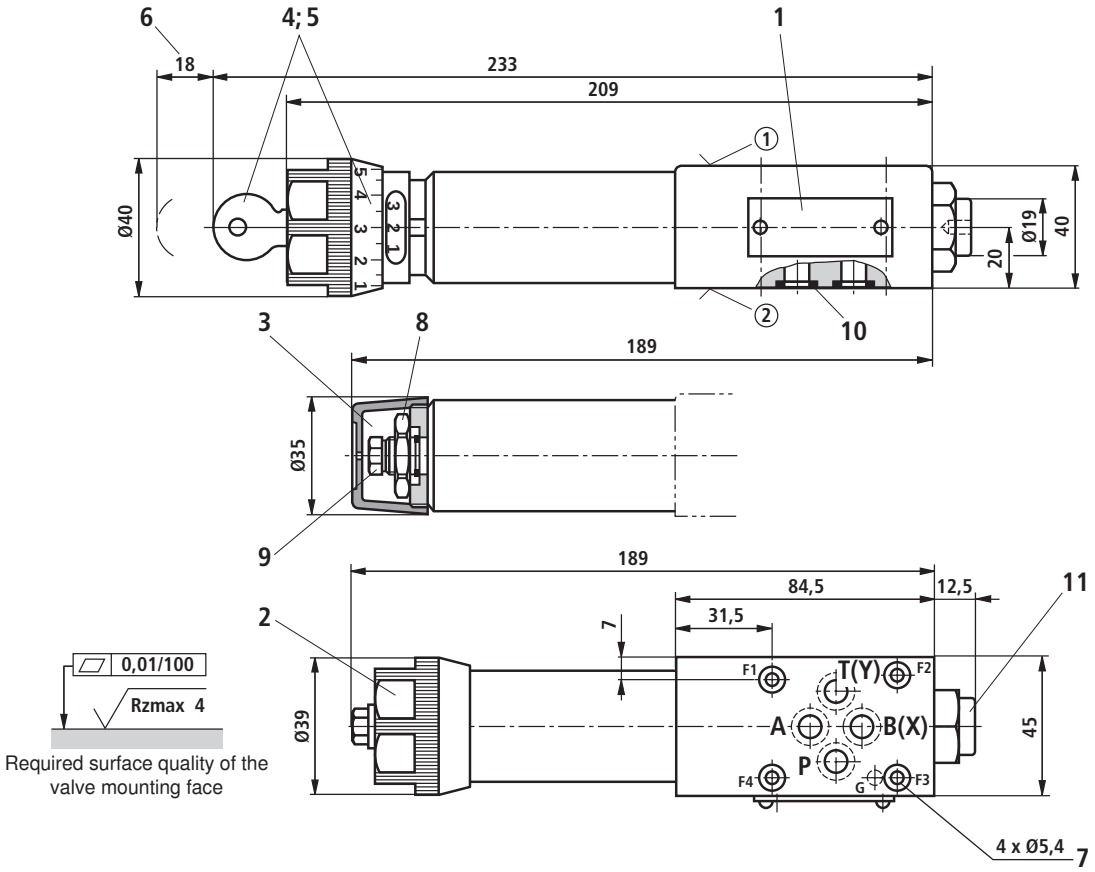
Valve mounting screws (separate order)

4 hexagon socket head cap screws
ISO 4762 - M5 - 10.9-flZn-240h-L

☞ **Note!**

Length and tightening torque of the valve mounting screws must be calculated according to the components mounted under and above the sandwich plate valve.

Unit dimensions: Version “A” (dimensions in mm)



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Notes