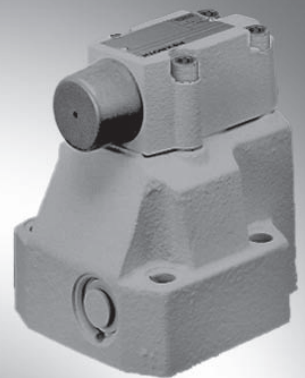


# Pressure sequence valve, pilot-operated

**RE 26391/06.11**  
Replaces: 02.03

1/10

## Type DZ

Size 10, 25, 32  
Component series 5X  
Maximum operating pressure 315 bar  
Maximum flow 600 l/min

K4663

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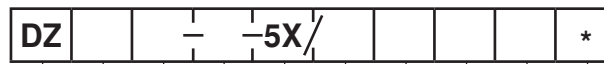
## Features

- Suitable for use as preload, sequence or switchover valve
- For subplate mounting
- Porting pattern according to ISO 5781
- As cartridge valve
- 4 pressure ratings
- 4 adjustment types:
  - Rotary knob
  - Bushing with hexagon and protective cap
  - Lockable rotary knob with scale
  - Rotary knob with scale
- Check valve, optional
- More information:
  - Subplates

Data sheet 45062

Information on available spare parts:  
[www.boschrexroth.com/spc](http://www.boschrexroth.com/spc)

## Ordering code



Pressure sequence valve, pilot-operated	
Complete valve (subplate mounting)	= no code
Pilot control valve <b>without</b> main spool insert (cartridge valve) (size <b>not</b> entered)	= C
Pilot control valve <b>with</b> main spool insert (cartridge valve) (valve size 30 entered)	= C
Size 10	= 10
Size 25	= 20
Size 32	= 30
<b>Adjustment type</b>	
Rotary knob	= 1
Bushing with hexagon and protective cap	= 2
Lockable rotary knob with scale	= 3 <sup>1)</sup>
Rotary knob with scale	= 7
Component series 50 to 59 (50 to 59: Unchanged installation and connection dimensions)	= 5X

<sup>1)</sup> H-key with Material no. **R900008158** is included in the delivery.

<sup>2)</sup> Not with version "C"

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

Further details in the plain text

**Seal material**  
**no code =** NBR seals  
**V =** FKM seals  
 (other seals upon request)  
 Attention!  
 Observe compatibility of seals with hydraulic fluid used!

**no code =** **With check valve<sup>2)</sup>**  
**M =** **Without check valve**

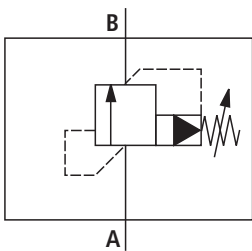
**Pilot oil supply**  
**no code =** Pilot oil supply internal, pilot oil discharge internal  
**X =** Pilot oil supply external, pilot oil return internal<sup>2)</sup>  
**Y =** Pilot oil supply internal, pilot oil return external<sup>2)</sup>  
**XY =** Pilot oil supply external, pilot oil return external (see symbols below)

**Setting pressure**

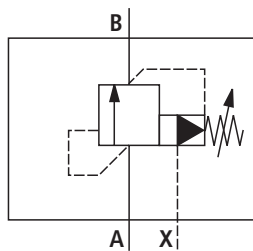
50 bar	= 50
100 bar	= 100
200 bar	= 200
315 bar	= 315

## Symbols

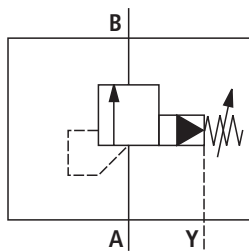
Type DZ. . .-5X/.M...



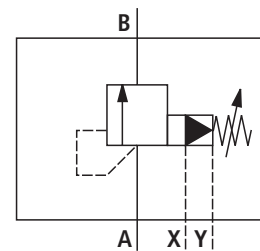
Type DZ. . .-5X/.XM...



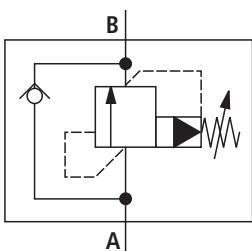
Type DZ. . .-5X/.YM...



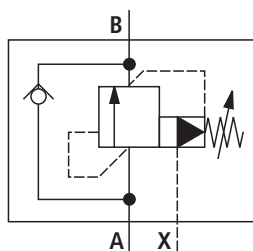
Type DZ. . .-5X/.XYM...



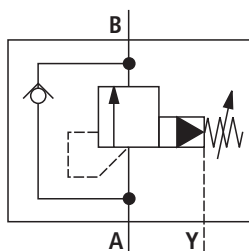
Type DZ. . .-5X/...



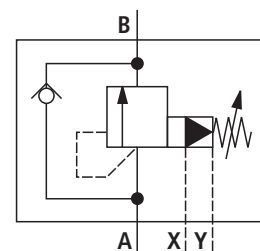
Type DZ. . .-5X/.X...



Type DZ. . .-5X/.Y...



Type DZ. . .-5X/.XY...






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

Size			10	25	32
Weight	– Type DZ ...	kg	3.4	5.3	8.0
	– Type DZC ...	kg	1.2		
	– Type DZC 30 ...	kg	1.5		
Installation position			Any		
Ambient temperature range		°C	–30 to +80 (NBR seals) –20 to +80 (FKM seals)		

**hydraulic**

Maximum operating pressure	– Port A, B, X	bar	315		
Maximum backpressure	– Port Y	bar	315		
Minimal setting pressure		bar	Flow-dependent, see characteristic curves page 5		
Maximum setting pressure		bar	50; 100; 200; 315		
Maximum flow		l/min	200	400	600
Hydraulic fluid			See table below		
Hydraulic fluid temperature range		°C	–30 to +80 (NBR seals) –20 to +80 (FKM seals)		
Viscosity range		mm <sup>2</sup> /s	10 to 800		
Maximum permitted degree of contamination of the hydraulic fluid - cleanliness class according to ISO 4406 (c)			Class 20/18/15 <sup>1)</sup>		

Hydraulic fluid	Classification	Suitable sealing materials	Standards
Mineral oils and related hydrocarbons	HL, HLP, HLPD	NBR, FKM	DIN 51524
Environmentally compatible	– Insoluble in water	HETG	ISO 15380
		HEES	
	– Soluble in water	HEPG	ISO 15380
Flame-resistant	– Water-free	HFDU, HFDR	ISO 12922
	– Water-containing	HFC (Fuchs Hydrotherm 46M, Petrofer Ultra Safe 620)	ISO 12922

 **Important information on hydraulic fluids!**

- For more information and data on the use of other hydraulic fluids refer to data sheet 90220 or contact us!
- There may be limitations regarding the technical valve data (temperature, pressure range, service life, maintenance intervals, etc.)!

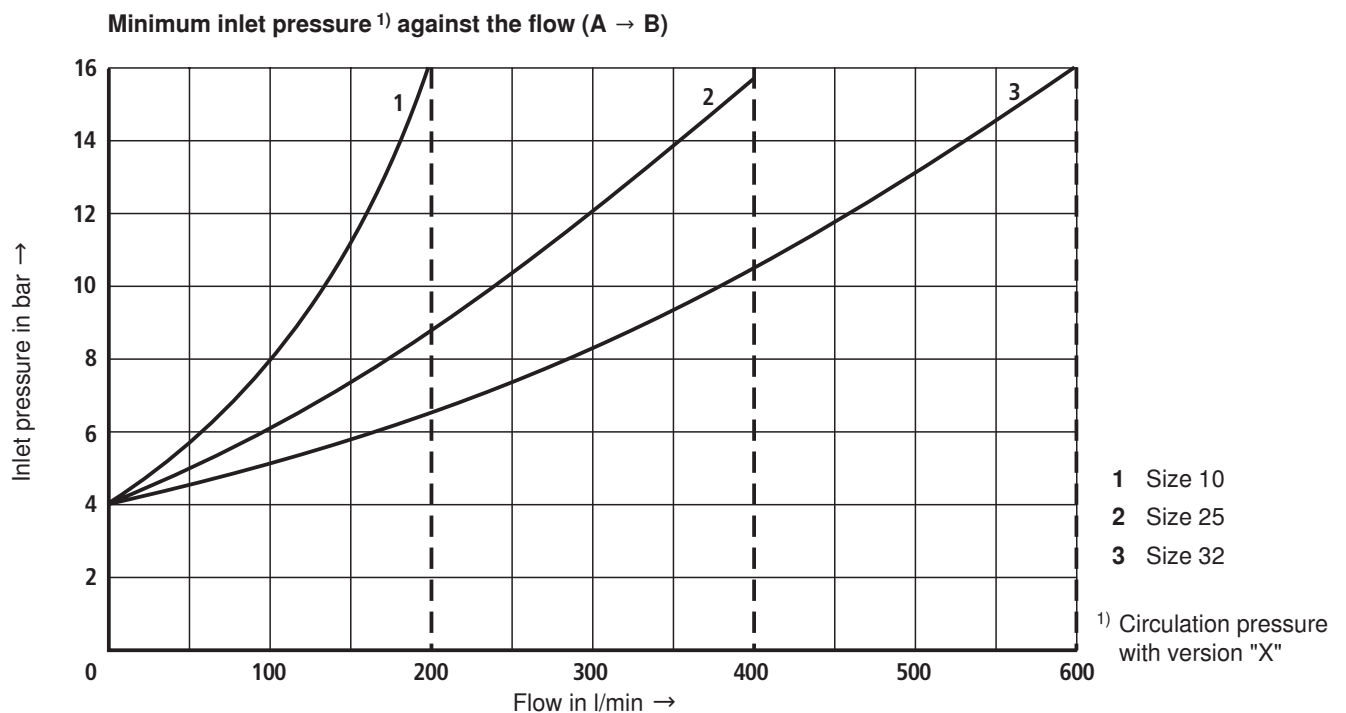
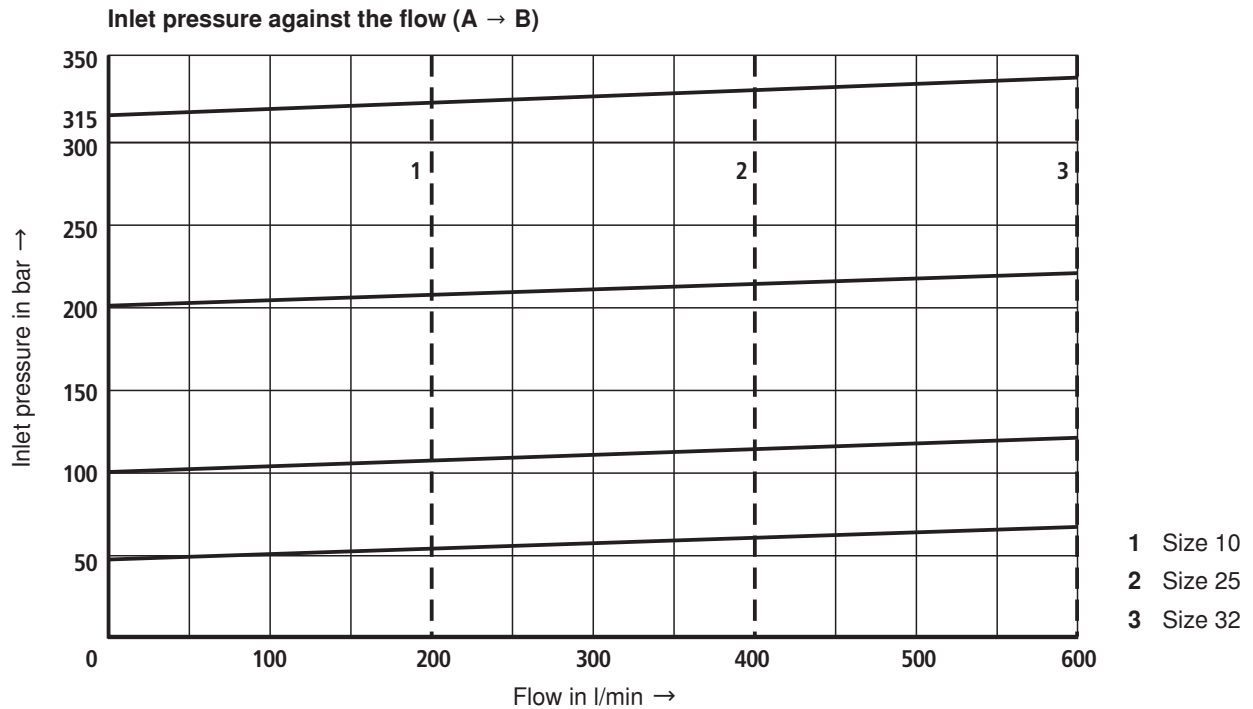
**– Flame-resistant – water-containing:**

- Maximum operating pressure 210 bar
- Maximum hydraulic fluid temperature 60 °C
- Expected service life as compared to HLP hydraulic oil 30 % to 100 %

<sup>1)</sup> The cleanliness classes specified for the components must be adhered to in hydraulic systems. Effective filtration prevents faults and at the same time increases the service life of the components.

For the selection of the filters see  
[www.boschrexroth.com/filter](http://www.boschrexroth.com/filter).

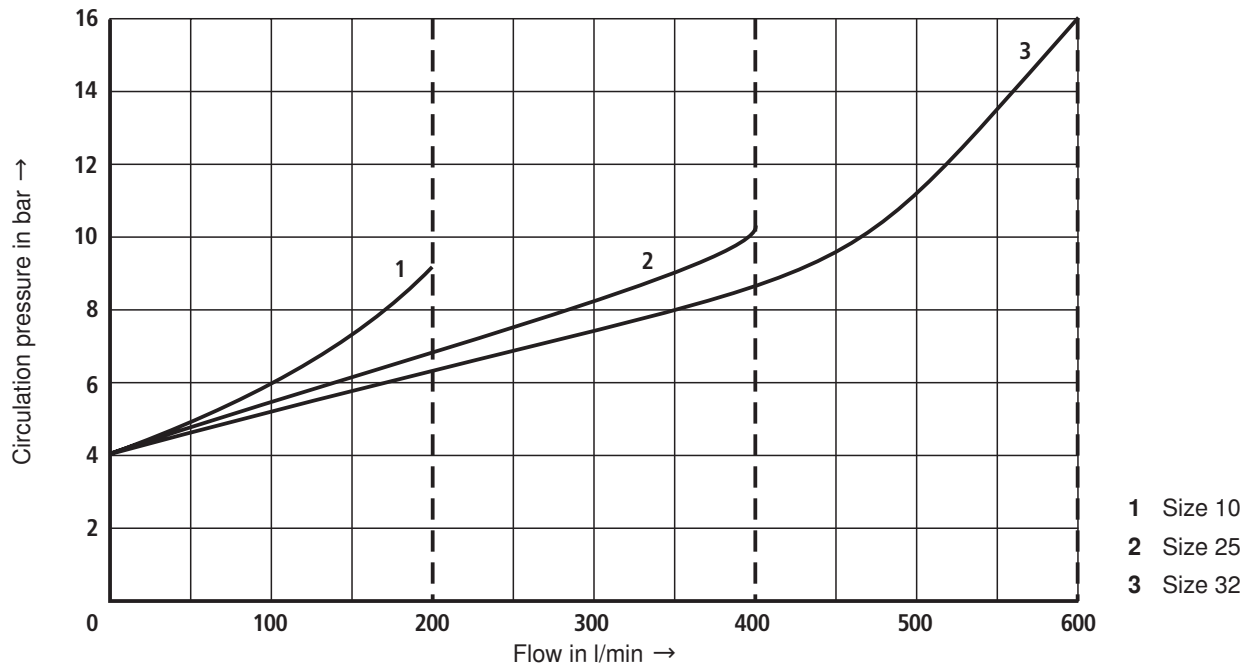
## Characteristic curves (measured with HLP46, $\vartheta_{\text{oil}} = 40 \pm 5 \text{ }^\circ\text{C}$ )



The characteristic curves apply to the pressure at the valve output  $p_T = 0$  bar across the entire flow range.

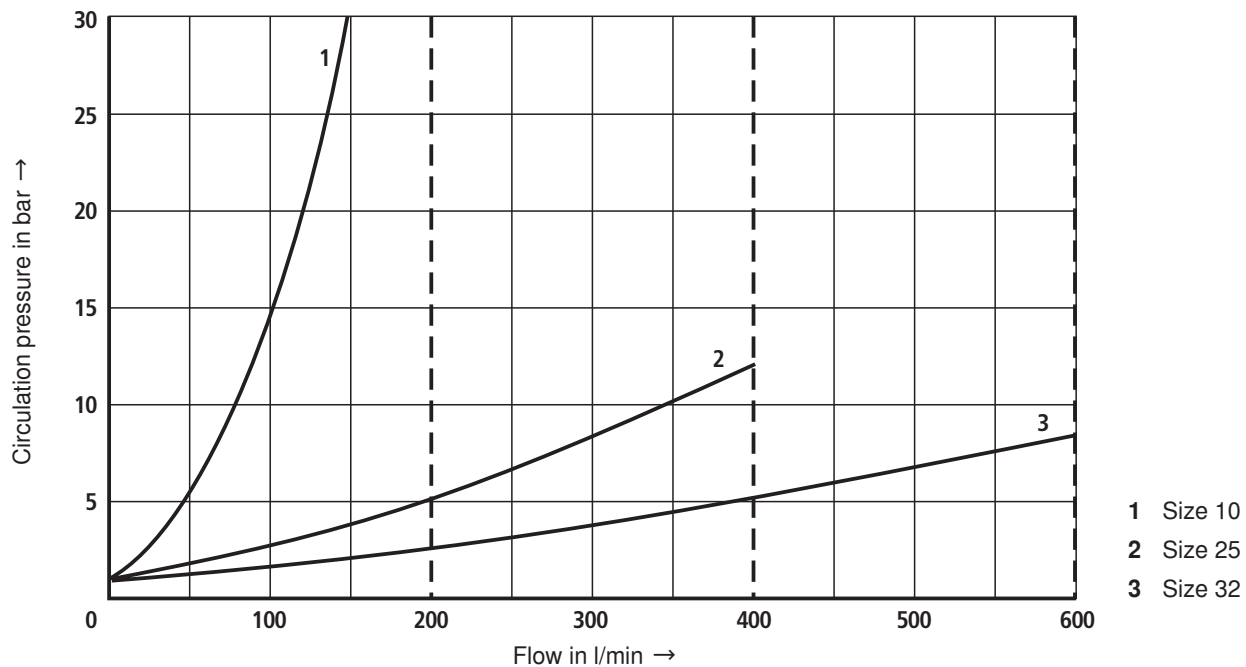
## Characteristic curves (measured with HLP46, $\vartheta_{oil} = 40 \pm 5 \text{ }^\circ\text{C}$ )

Circulation pressure against the flow (A → B) (only version "XY")

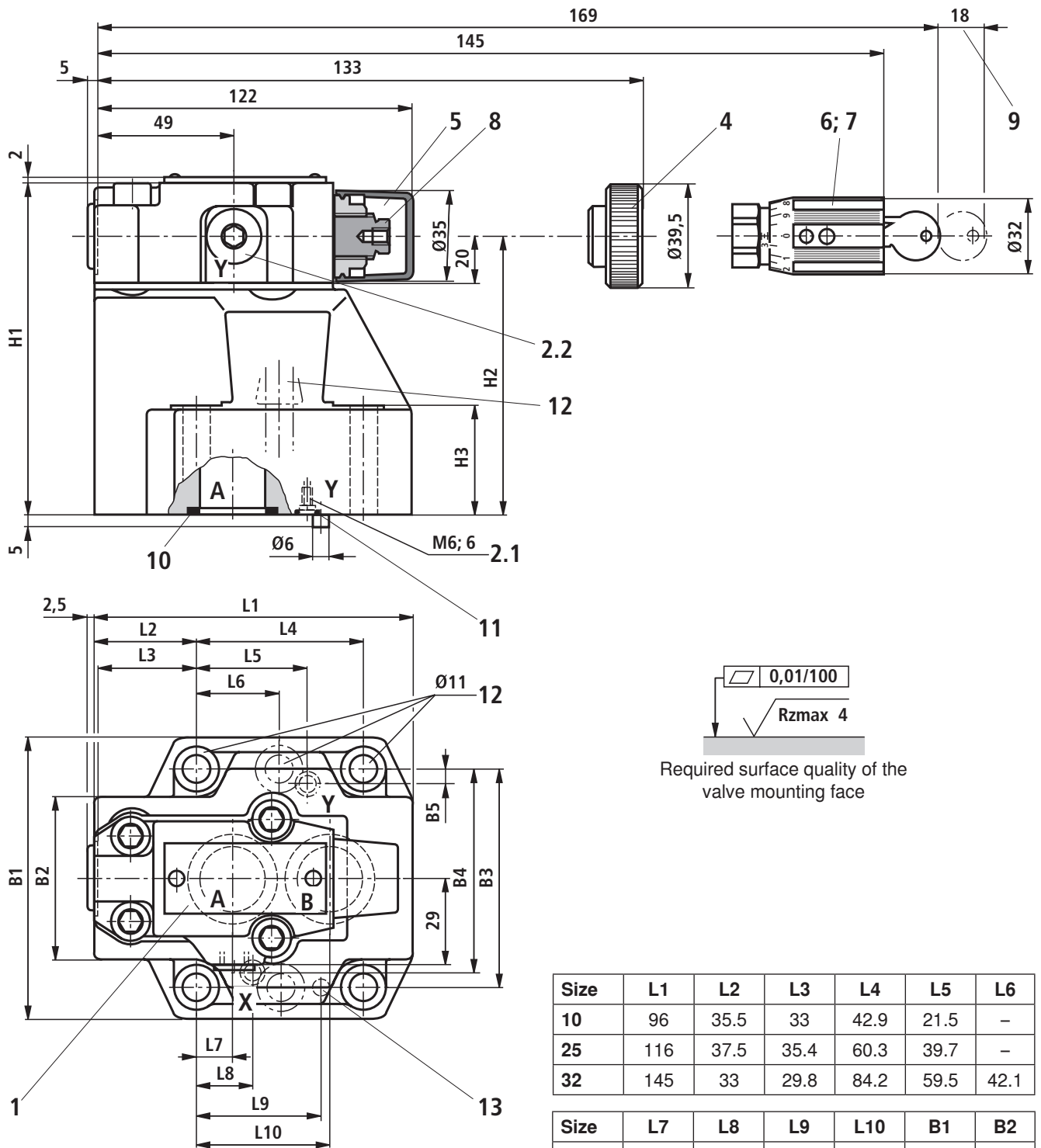


The characteristic curves apply to the pressure at the valve output  $p_T = 0 \text{ bar}$  across the entire flow range.

$\Delta p_{qV}$  characteristic curves across the check valve (B → A)



**Unit dimensions: Subplate mounting (dimensions in mm)**



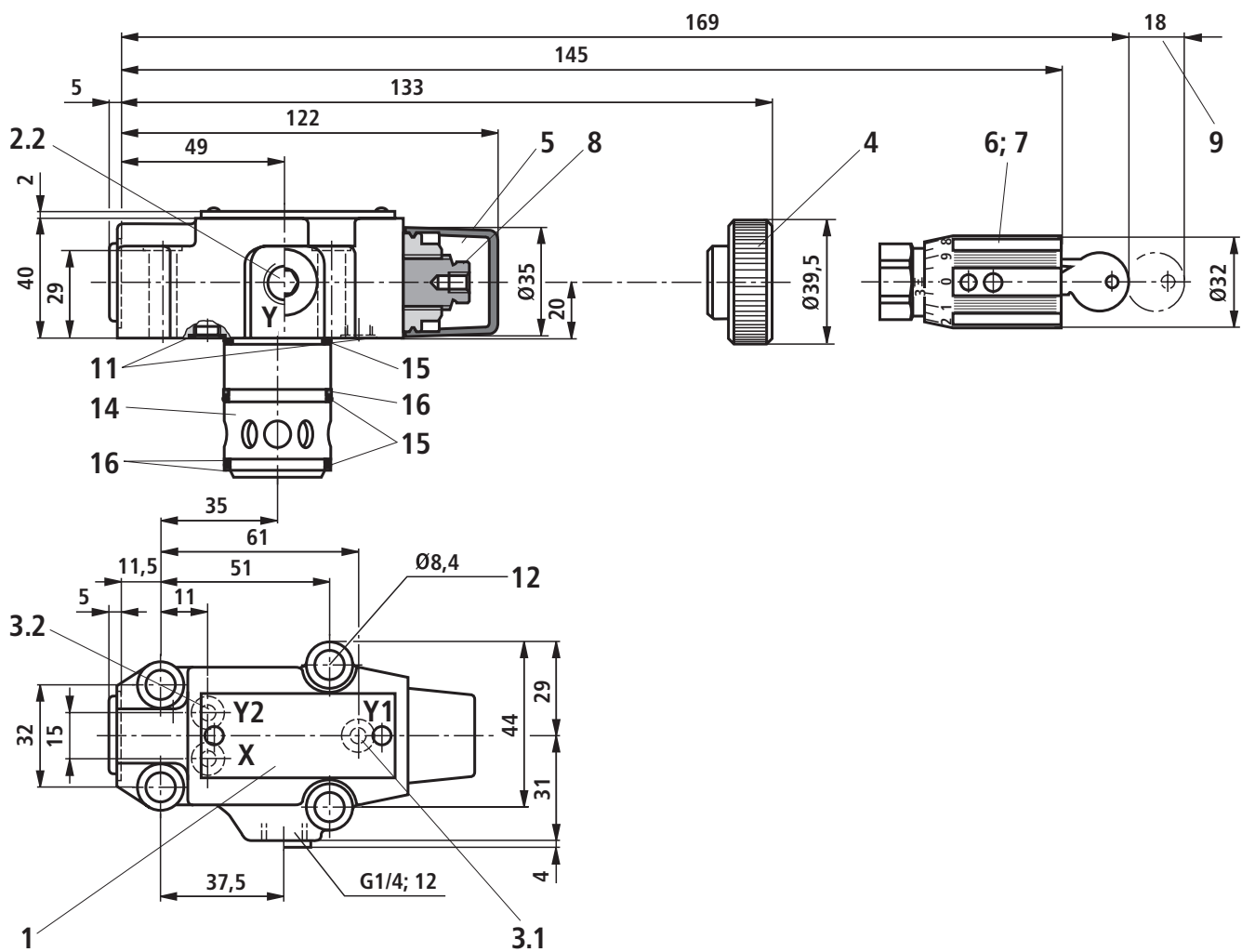
0,01/100  
 Rzmax 4  
 Required surface quality of the valve mounting face

Size	L1	L2	L3	L4	L5	L6
10	96	35.5	33	42.9	21.5	-
25	116	37.5	35.4	60.3	39.7	-
32	145	33	29.8	84.2	59.5	42.1

Size	L7	L8	L9	L10	B1	B2
10	7.2	21.5	31.8	35.8	85	50
25	11.1	20.6	44.5	49.2	102	59.5
32	16.7	24.6	62.7	67.5	120	76

Size	B3	B4	B5	H1	H2	H3
10	66.7	58.8	7.9	112	92	28
25	79.4	73	6.4	122	102	38
32	96.8	92.8	3.8	130	110	46

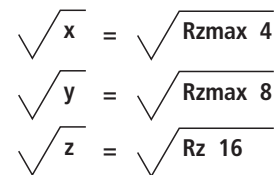
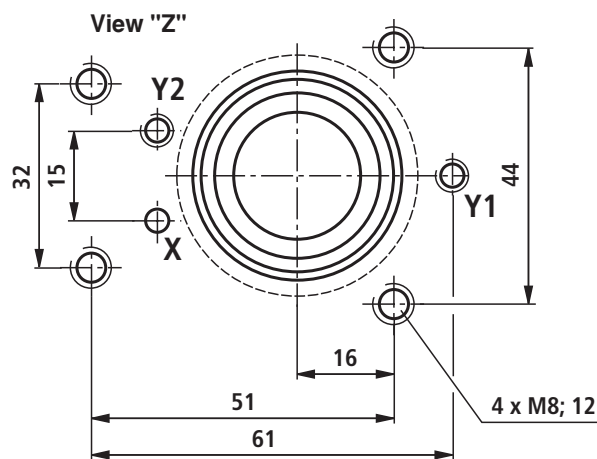
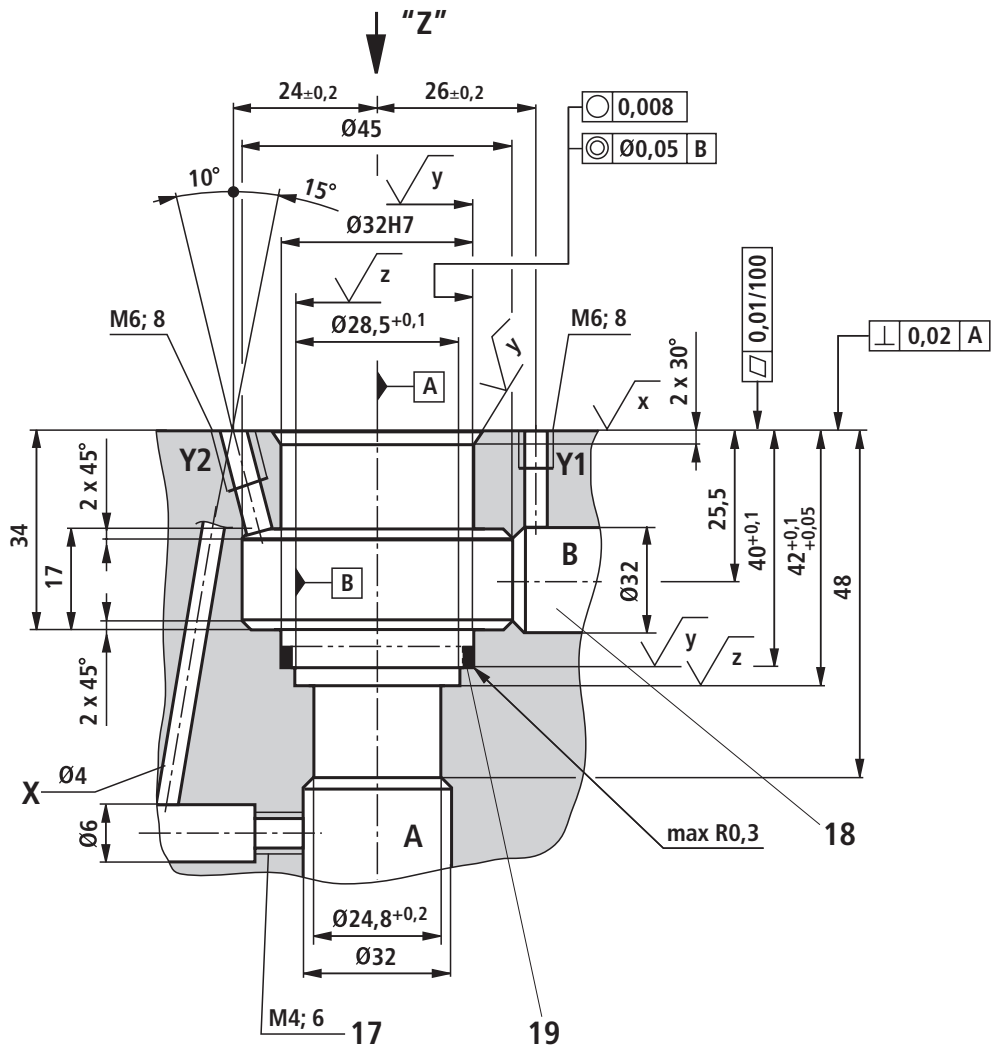
Item explanations, subplates, and valve mounting screws see page 10.

**Unit dimensions:** Cartridge valve (dimensions in mm)


Item explanations and valve mounting screws  
see page 10.




**Installation bore** (dimensions in mm)



Item explanations see page 10.

## Unit dimensions (dimensions in mm)

- 1 Name plate
- 2.1 Port Y for external pilot oil return with version "XY" or spring chamber unloading with version "Y"
- 2.2 Port Y (G1/4) optionally for external pilot oil return with version "XY" or spring chamber unloading with version "Y"
- 3.1 Port Y1 at the cartridge valve for pilot oil return with version "XY" or spring chamber unloading with version "no code", "X" and "Y"
- 3.2 Port Y2 at the cartridge valve for pilot oil return with version "no code", "X" and "Y"
- 4 Adjustment type "1"
- 5 Adjustment type "2"
- 6 Adjustment type "3"
- 7 Adjustment type "7"
- 8 Hexagon SW10
- 9 Space required to remove the key
- 10 Identical seal rings for ports A and B
- 11 Identical seal rings for ports X, Y, Y1 and Y2
- 12 Valve mounting bores
- 13 Locating pin
- 14 Main spool insert with nozzle
- 15 Seal ring (main spool)
- 16 Support ring (main spool)
- 17 Bore is omitted for version "X" and "XY"
- 18  **Note!**  
The Ø32 bore can tap a Ø45 bore at any point. However, it must be ensured that the connection and valve mounting bores are not damaged!
- 19 Support ring and seal ring must be inserted into the bore before assembly of the main spool!

**Subplates** according to data sheet 45062 (separate order)

– Size 10	G 460/01 (G3/8) G 461/01 (G1/2)
– Size 25	G 412/01 (G3/4) G 413/01 (G1)
– Size 32	G 414/01 (G1 1/4) G 415/01 (G1 1/2)

**Valve mounting screws** (separate order)

For reasons of stability, exclusively the following valve mounting screws may be used:

Subplate mounting:

- Size 10  
**4 ISO 4762 - M10 x 50 - 10.9-flZn-240h-L**  
with friction coefficient  $\mu_{\text{total}} = 0.09$  to  $0.14$ ,  
Tightening torque  $M_A = 60 \text{ Nm} \pm 10 \%$ ,  
Material no. **R913000471**
- Size 25  
**4 ISO 4762 - M10 x 60 - 10.9-flZn-240h-L**  
with friction coefficient  $\mu_{\text{total}} = 0.09$  to  $0.14$ ,  
Tightening torque  $M_A = 60 \text{ Nm} \pm 10 \%$ ,  
Material no. **R913000116**
- Size 32  
**6 ISO 4762 - M10 x 70 - 10.9-flZn-240h-L**  
with friction coefficient  $\mu_{\text{total}} = 0.09$  to  $0.14$ ,  
Tightening torque  $M_A = 60 \text{ Nm} \pm 10 \%$ ,  
Material no. **R913000126**

Cartridge valve:

- 4 ISO 4762 - M8 x 40 - 10.9-flZn-240h-L**  
with friction coefficient  $\mu_{\text{total}} = 0.09$  to  $0.14$ ,  
Tightening torque  $M_A = 31 \text{ Nm} \pm 10 \%$ ,  
Material no. **R913000205**

The tightening torques are guidelines when using screws with the specified friction coefficients and when using a torque power screwdriver (tolerance  $\pm 10 \%$ ).

## Notes

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## Notes

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