

**MANNESMANN  
REXROTH****Direct Operated Sequence Valve  
Type DZ 5 DP, Series 1X****RE  
26 055/07.92**

Replaces: 03.84

Size 5

up to 315 bar

up to 15 L/min

- For subplate mounting, mounting pattern to DIN 24 340, form C for subplates, see RE 45 050 (separate order)
- Front flange mounting
- 5 pressure ranges
- 4 different setting elements:
  - Rotary knob
  - Sleeve with hexagon and protective cap
  - Lockable rotary knob with scale
  - Rotary knob with scale
- Optional non return valve

K 3540/1  
Type DZ 5 DP 3-1X/...**Description of Function, Section**

Valves type DZ 5 DP are direct operated sequence valves. They are used to direct oil to a second system at a set pressure.

Valves of this type consist basically of the housing (1), control spool (2), springs (3) and pressure setting element (4), and additionally non-return valve (5) if required.

The pressure at which the valve passes oil is set at the pressure setting element (4).

The springs (3) hold the control spool (2) in the starting position, and the valve remains closed. The pressure in port P passes via drilling (6) and jet (7) on to the spool operating area at the opposite end to the control springs (3).

When pressure in port P reaches the set value, the spool moves against the spring to connect port P to port A.

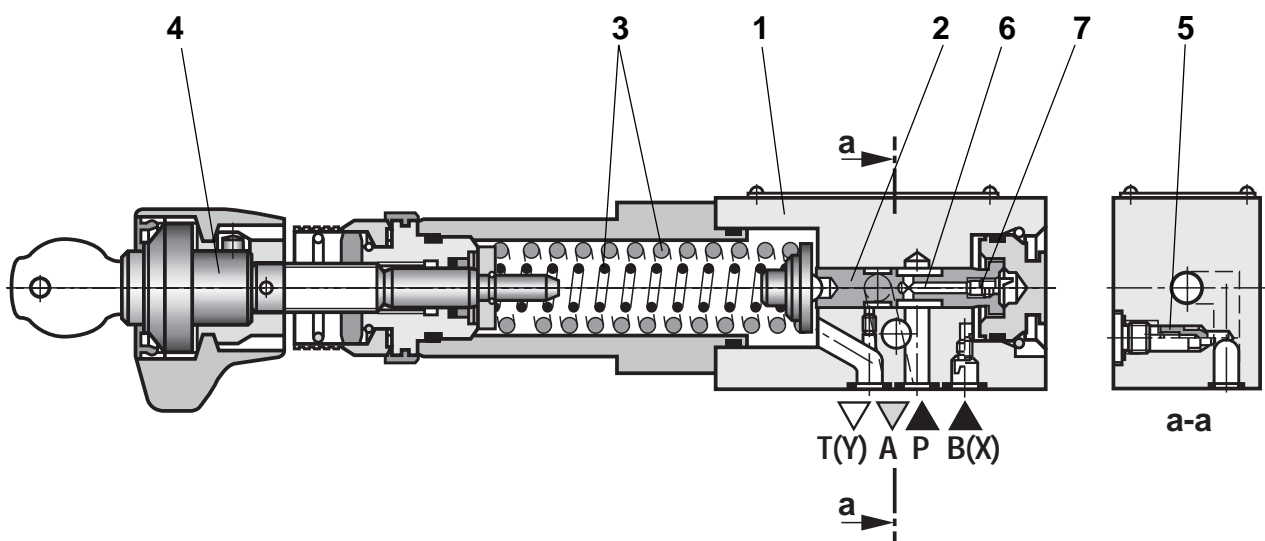
**The signal for this passes internally via drilling (6) from port P.**

Oil now passes to the system connected to port A, but the pressure in port P does not fall.

The pilot oil may also be fed externally via port B(X).

Depending on the application of the valve, the pilot oil return may be externally via port T(Y) or internally.

In order to allow free return flow of the oil from port A to port P, non-return valve (5) may be included if required.



Type DZ 5 DP 3-1X/...

# Symbols

without non-return valve	DZ...-1X/...M.. 	DZ...-1X/...XM.. 	DZ...-1X/...YM.. 	DZ...-1X/...XYM.. 
with non-return valve	DZ...-1X/.... 	DZ...-1X/...X.. 	DZ...-1X/...Y.. 	DZ...-1X/...XY.. 

## Ordering code

	DZ	5	D	P	-1X/					*
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For subplate mounting= **no code**

For front flange mounting = **F**

Size 5 = **5**

Direct operated = **D**

Subplate ports = **P**

### Adjustment element

Rotary knob = **1**

Sleeve with hexagon on protective cap = **2**

Lockable rotary knob with scale <sup>1)</sup> = **3**

Rotary knob with scale = **7**

Series 10 to 19 = **1X**

(10 to 19, installation and connection dimensions remain unchanged)

Max. sequence pressure 25 bar = **25**

Max. sequence pressure 75 bar = **75**

Max. sequence pressure 150 bar = **150**

Max. sequence pressure 210 bar = **210**

Max. sequence pressure 315 bar = **315**

(315 bar unit only available without non-return valve)

further details in clear text

**no code =** NBR seals, suitable for mineral oils (HL, HLP) to DIN 51 524

**V =** FPM seals, suitable for phosphate ester fluids (HFD-R)

**no code =** with non-return valve

**M =** without non-return valve

### Pilot oil supply

**no code =** internal pilot oil supply  
internal pilot oil drain

**X =** external pilot oil supply  
internal pilot oil drain

**Y =** internal pilot oil supply  
external pilot oil drain

**XY =** external pilot oil supply  
external pilot oil drain

<sup>1)</sup> H-key with part no. 008 158 is part of supply schedule

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

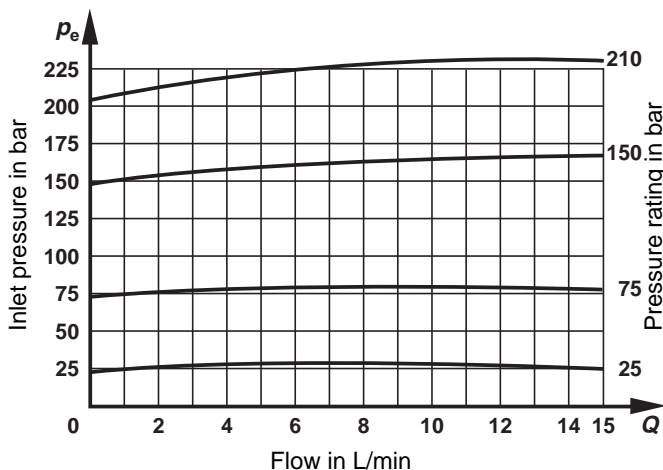
Mounting position	optional
Weight	kg 1,4

**hydraulic**

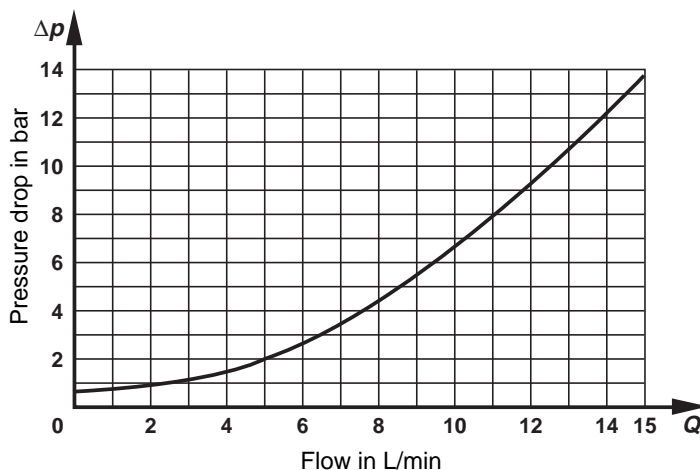
Inlet pressure, port P, B(X)	bar	up to 210; without non-return valve up to 315 bar
Outlet pressure, port A (pressure at port A when T(Y) = 0 bar)	bar	up to 315
Back pressure, port T(Y)	bar	up to 60
Max. permissible flow	L/min	15
Fluids		Mineral oils (HL, HLP) to Din 51 524; phosphate ester fluids (HFD-R)
Fluid temperature range	°C	- 30 to +80 (for NBR seals) - 20 to +80 (for FPM seals)
Viscosity range	mm <sup>2</sup> /s	10 to 800
Fluid cleanliness		Maximum permissible degree of contamination of the fluid to NAS 1638 Class 9. We therefore recommend a filter with a minimum retention rate of $\beta_{10} \geq 75$ .

**Operating curves** (measured at  $v = 41 \text{ mm}^2/\text{s}$  and  $t = 50 \text{ °C}$ )

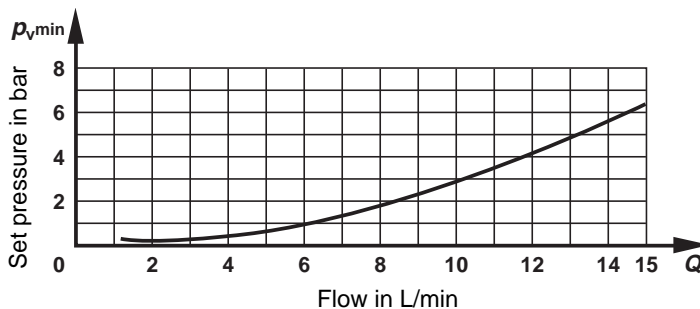
$p_e$ -Q-curve  
Inlet pressure related to flow



$\Delta p$ -Q-curve  
via the integral no-return valve

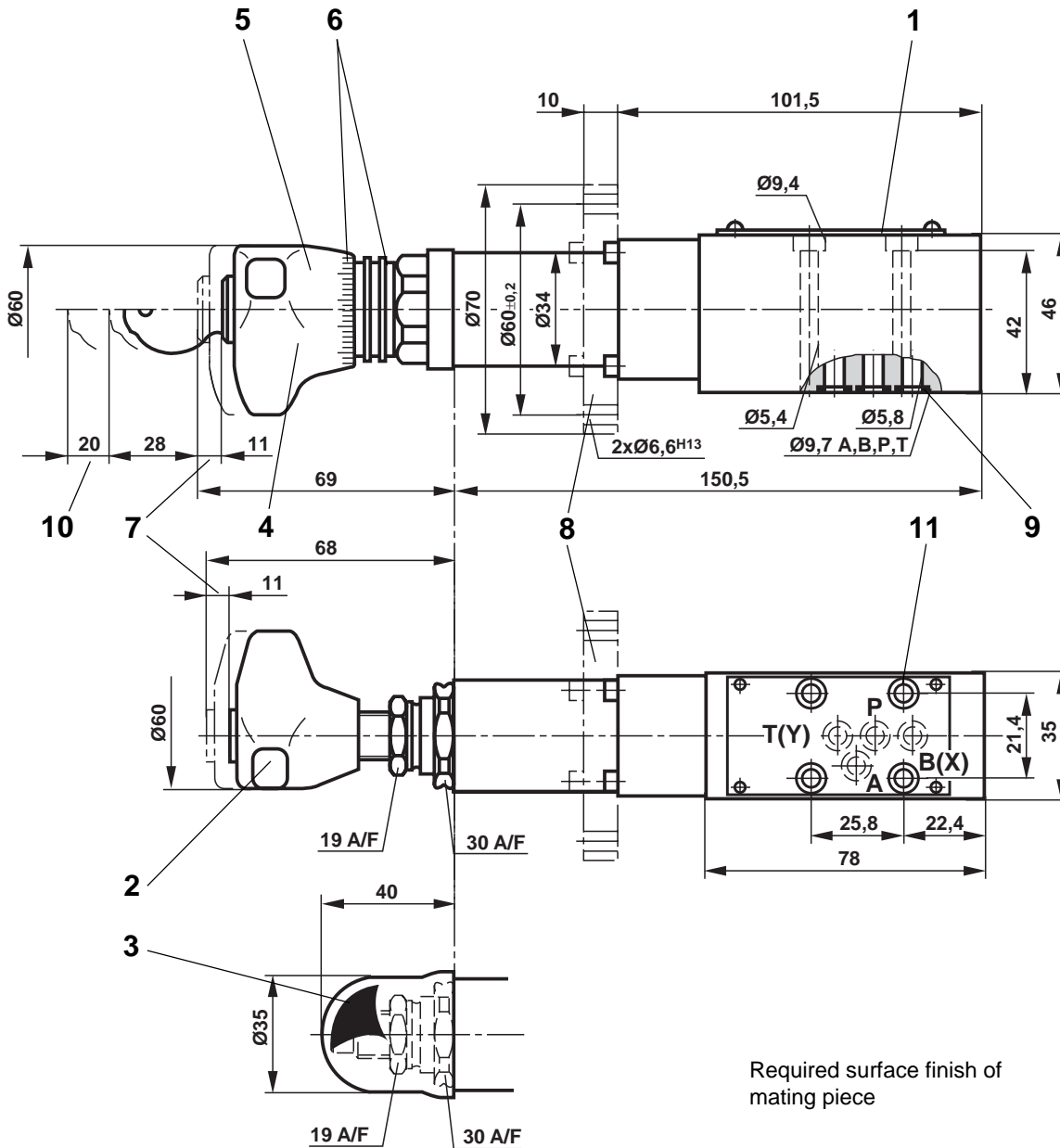


$p_{v \text{ min}}$ -Q-curve  
lowest permissible  
pressure setting  
related to flow

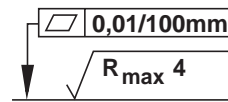


## Unit Dimensions

(dimensions in mm)



Required surface finish of mating piece



- 1 Name plate
- 2 Adjustment type "1"
- 3 Adjustment type "2"
- 4 Adjustment type "3"
- 5 Adjustment type "7"
- 6 scale and ring marking for repeat setting
- 7 max. stroke

- 8 Panel mounting model (type F DZ 5 DP../..)
- 9 R-Ring 7,3 x 1,4 x 1,5 for ports P, A, B(X) und T(Y)
- 10 Clearance to remove key
- 11 Valve fixing holders

Subplates to data sheet RE 45 050 and valve fixing screws must be ordered separately

**Subplates** G 96/01 (G1/4)  
G 115/01 (G1/4)

**Valve fixing screws**  
M5x50 DIN 912-10.9;  $M_A = 8,9$  Nm



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