Rexroth
Bosch Group

Supply pressure compensator, direct operated

Type ZDC

Size 6
Component series 1X
Maximum operating pressure 250 bar
Maximum flow 35 l/min

H7870

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Features

– Sandwich plate valve
– Porting pattern according to DIN 24340 form A
– Load compensation in channel P → A or P → B by installed shuttle valve
– 2-way version "P"
– Flow control in case of interaction with proportional directional valve

Ordering code

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Z   DC   6   X   P  -1X/   M      *
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Sandwich plate valve

Supply pressure compensator

Size 6   = 6

Porting pattern according to DIN 24340 form A   = X

Load compensation in channel P   = P
Load compensation in channel A   = A

Component series 10 to 19   = 1X
(10 to 19: Unchanged installation and connection dimensions)

Further details in the plain text

No code =   No special version
Possible special versions see below

Seal material
M =   NBR seals
(other seals upon request)
Attention!
Observe compatibility of seals with hydraulic
fluid used!

Pressure differential
8 =   8 bar
14 =   14 bar
25 =   25 bar

> Preferred types and standard units are contained in the
> EPS (standard price list).

| Symbols (① = component side, ② = plate side)	Load compensation in channel	Pressure differential	Special version	Material no.
	P	8	–	0811401200
	P	14	–	0811401208
	P	25	-291 Special setting with directional valve type 4WRPE [1]; flow Δp 100 bar > 33 l/min	R901140492
	P	8	-287 Closed-loop control in P component-side; supply optionally A or P; pilot pressure from B	0811401201
	A	8	-292 Flow in A; pilot pressure from T	0811401202

[1] Material no. 0811404618

Function, section

Valves of type ZDC are direct operated supply pressure compensators in 2-way design.

As with all throttle cross-sections, the flow of proportional throttle valves and directional valves depends on the pressure differential Δp.

The effect of a load-compensated, electrical flow control valve results from the combination of throttle valve (measurement throttle) and pressure compensator which keeps the pressure differential Δp at the measurement throttle constant. The pressure differential is determined by the pressure compensator spring and depending on the select design ranges between 8 and 25 bar

The combination of a proportional directional valve with a pressure compensator results in the effect of a flow control valve for 2 directions. The changing load pressure is to be scanned via a shuttle valve. If pulling loads result during deceleration of mass, backpressure valves are to be provided.
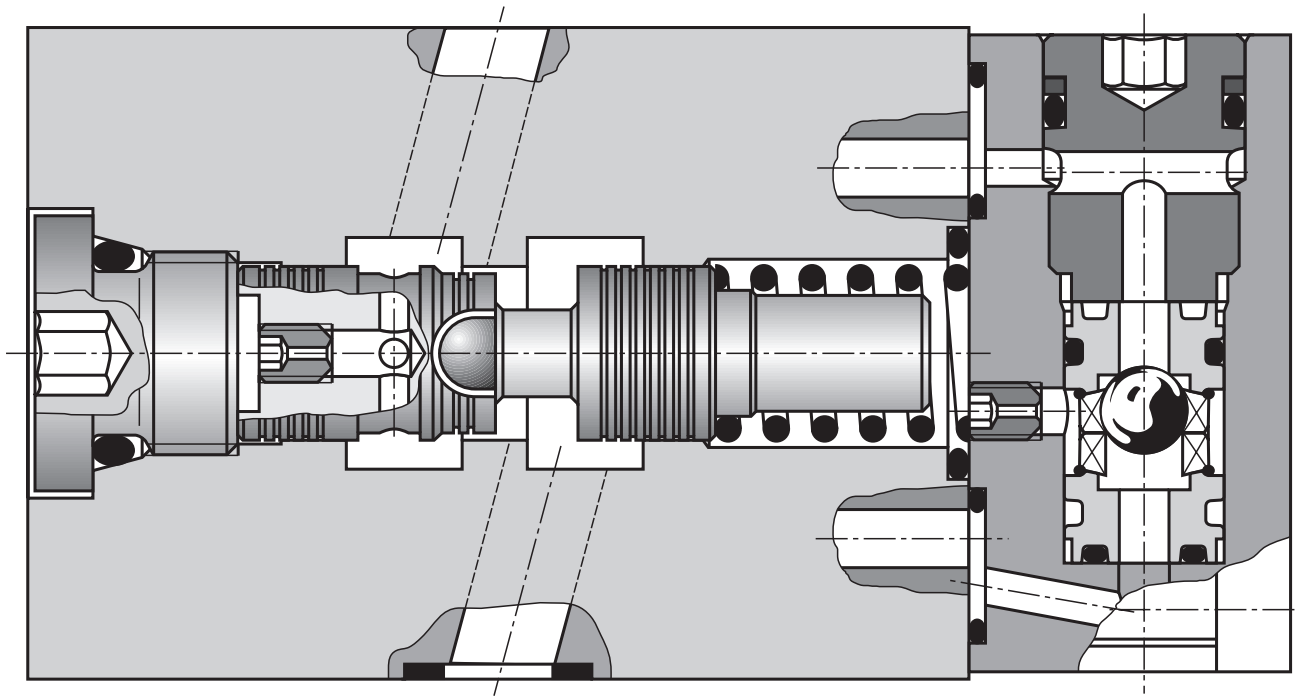
Technical data (For applications outside these parameters, please consult us!)

general

Weight	kg	1.5
Installation position		Any

hydraulic

Maximum operating pressure	bar	250
Maximum flow	l/min	35 (depending on the pressure differential)
Hydraulic fluid		See table below
Hydraulic fluid temperature range	°C	−20 to +70
Viscosity range	mm²/s	15 to 380
Maximum permitted degree of contamination of the hydraulic fluid - cleanliness class according to ISO 4406 (c)		Class 20/18/15 [1]

Hydraulic fluid	Classification	Suitable sealing materials	Standards
Mineral oils and related hydrocarbons	HL, HLP, HLPD, HVLP, HVLPD	NBR	DIN 51524

☞ **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.)!

[1] 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.

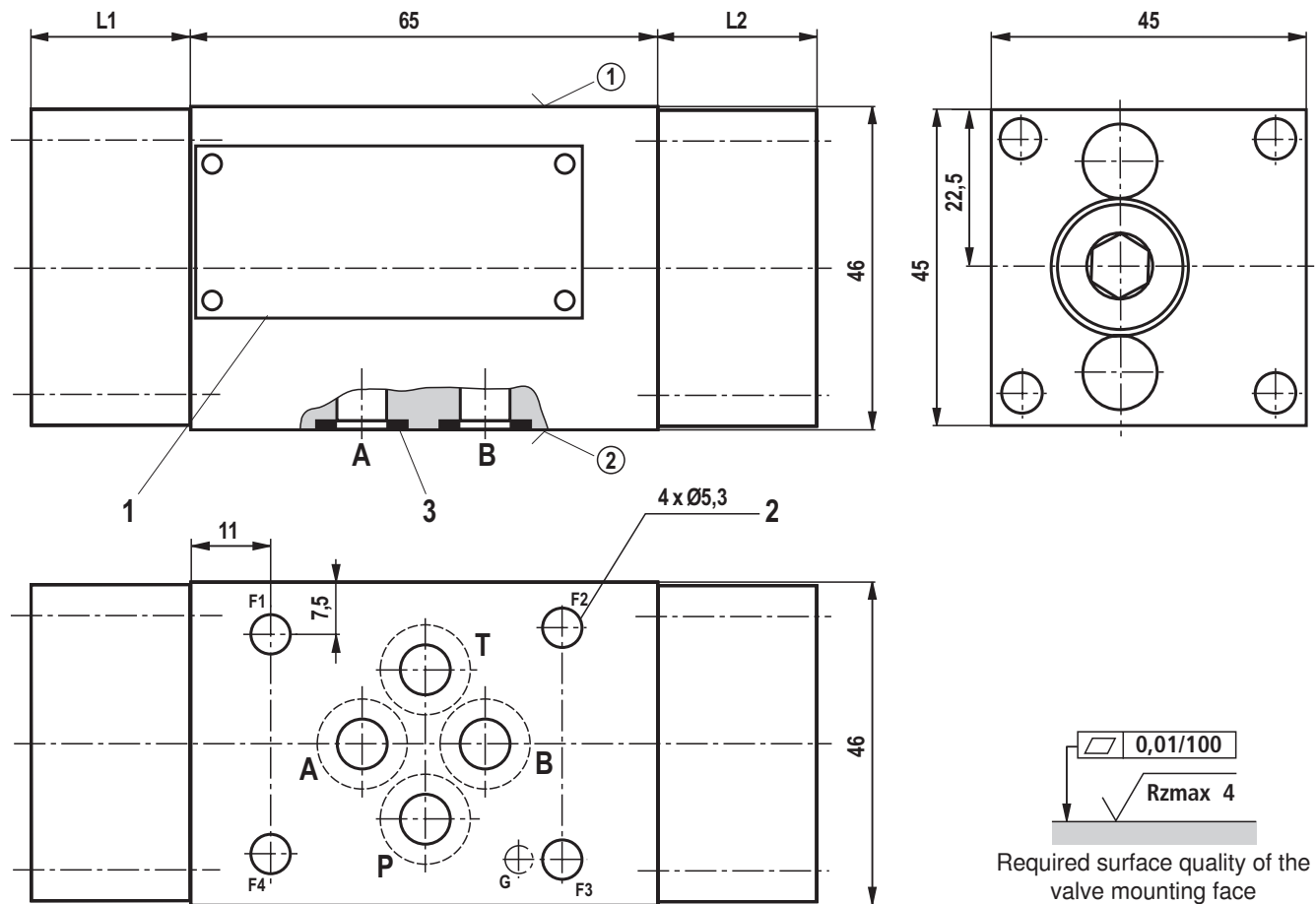For selecting the filters, see www.boschrexroth.com/filter.

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

Flow control P to A, P to B

Pressure differential $\Delta p_{min} = p_{Pump} - p_{Load}$
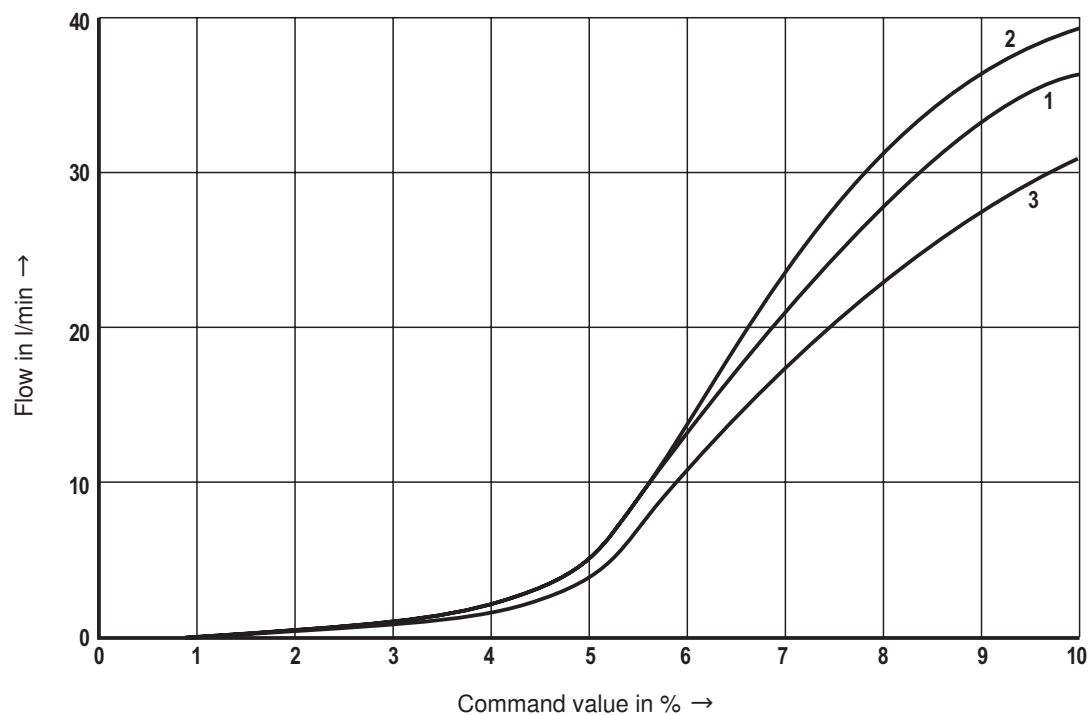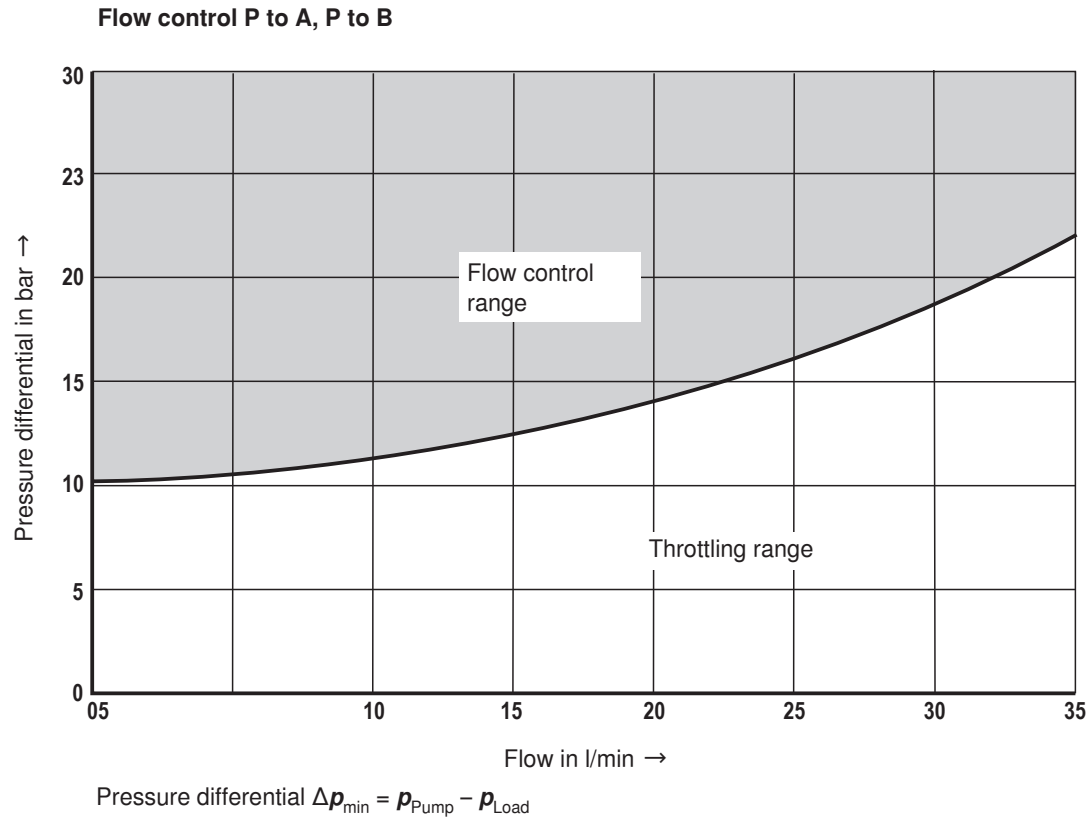
Characteristic curves measured with directional control valve type 4WRPE 6 ...

1 Version "8M"

2 Version "14M"

3 Version "25M-291"

Unit dimensions (dimensions in mm)

① Component side – porting pattern according to DIN 24340 form A

② Plate side – porting pattern according to DIN 24340 form A

1 Name plate

2 Valve mounting bores

3 Identical seal rings for ports A, B, P, T

Valve mounting screws (separate order)
4 hexagon socket head cap screws ISO 4762 - M5 - 10.9

☞ **Notice!**

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