

Table of contents		Features	
Contents	Page	<ul> <li>For subplate mounting</li> </ul>	
Features	1	<ul> <li>Porting pattern according to ISO 5781-06-07-0-00</li> </ul>	
Ordering code	2	<ul> <li>4 pressure ratings</li> </ul>	
Symbols	2	<ul> <li>4 adjustment types:</li> </ul>	
Function, section	3	Rotary knob	
Technical data	4	<ul> <li>Setscrew with hexagon and protective cap</li> <li>Lockable rotary knob with scale</li> </ul>	
Characteristic curves	5	Rotary knob with scale	
Unit dimensions	6, 7	<ul> <li>With pressure gauge connection</li> </ul>	
		<ul> <li>Check valve, optional</li> </ul>	

More information:Subplates

Data sheet 45062

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**2**/8 Bosch Rexroth AG | Hydraulics DZ 10 DP | RE 26099/05.11

#### Ordering code

HYO

DZ 1	0 DP		<b>-</b> 42	х¦	
Pressure sequence valve, direct operated, size 10					
Adjustment type	1				
Rotary knob	=	1			
Setscrew with hexagon and protective cap	=	2			
Lockable rotary knob with scale	= 3	1)			
Rotary knob with scale	=	7			
Component series 40 to 49 (40 to 49: unchanged installation and connect	ion dim	_	<b>4X</b> ns)		
Maximum sequencing pressure				·	
25 bar				= 25	N
75 bar				= 75	
150 bar			=	150	X
210 bar			=	210	

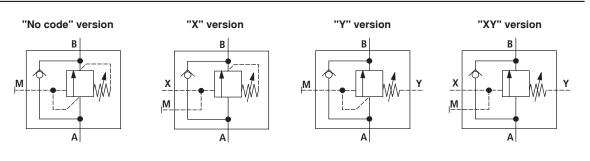
Standard types and standard units are contained in the EPS (standard price list).

┯┻			<u> </u>
			Further details in the plain text
			Seal material
		No c	ode = NBR seals
		V =	FKM seals
			(other seals upon request)
			Attention!
		Obs	erve compatibility of seals with hydrau- lic fluid used!
	No c	ode =	With check valve
	M =		Without check valve
No c	ode =	=	Pilot oil supply internal, leakage oil discharge internal
X =	I	Pilot o	il supply external, leakage oil discharge internal
Y =		Pilot c	bil supply internal, leakage oil discharge external
XY =		Pilot o	il supply external, leakage oil discharge external

\*

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

#### Symbols





RE 26099/05.11 | DZ 10 DP

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#### Function, section

The valve type DZ 10 DP is a direct operated pressure sequence valve. It is used for the pressure-dependent sequencing of a second system. The sequencing pressure is set via the adjustment type (1).

The compression spring (2) holds the control spool (3) in the initial position - the valve is blocked. Via the pilot line (4), the pressure in channel A is applied to the spool face of the control spool (3) vis-à-vis the compression spring (2).

If the pressure in channel A reaches the set value of the compression spring (2), the control spool (3) is pushed to the right and the connection A to B is opened. The system connected at channel B is sequenced without a drop of the pressure in channel A. The control signal is provided internally, via the control line (4) from channel A, or externally, via port X.

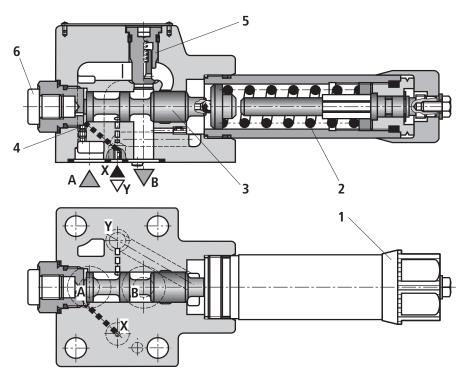
Depending on the valve use, the leakage oil discharge is designed externally, via port Y or internally, via B.

#### Attention!

With **internal** leakage oil discharge, the **set** cracking pressure is increased by the pressure in channel B.

For the free flow back of the hydraulic fluid from channel B to channel A, you can optionally install a check valve (5).

A pressure gauge connection (6) allows for the control of the sequencing pressure at the valve.



Type DZ 10 DP1-4X/.XY..



**4**/8 Bosch Rexroth AG | Hydraulics

#### DZ 10 DP | RE 26099/05.11

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

#### general

Weight	kg	Approx. 3
Installation position		Any
Ambient temperature range	õ	-30 to +80 (NBR seals) -20 to +80 (FKM seals)

### hydraulic

nyuraulic	
Maximum operating pressure – Port A, X bar	210
– Port Y bar	160
Maximum sequencing pressure (adjustable) bar	25; 75; 150; 210
Maximum flow I/min	80
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		HETG	NBR, FKM		
	<ul> <li>Insoluble in water</li> </ul>	HEES	FKM	ISO 15380	
compatible	<ul> <li>Soluble in water</li> </ul>	HEPG	FKM	ISO 15380	
	- Water-free	HFDU, HFDR	FKM	ISO 12922	
Flame-resistant	- Water-containing	HFC (Fuchs Hydrotherm 46M, Petrofer Ultra Safe 620)	NBR	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.)!

<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.

- 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 %

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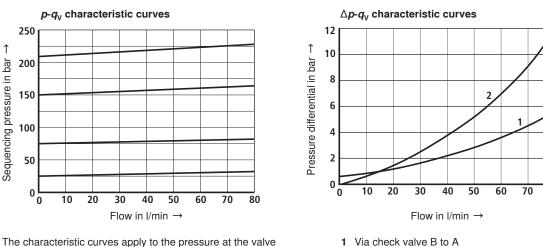
80

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**5**/8

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



2 A to B

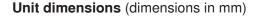
The characteristic curves apply to the pressure at the valve output p = 0 bar across the entire flow range.

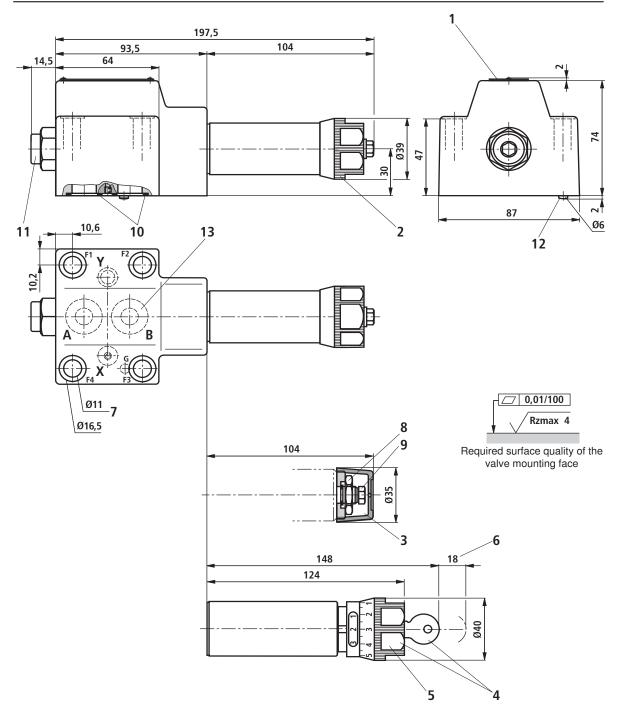


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Item explanations, subplates, and valve mounting screws see page 7.

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#### Hydraulics | Bosch Rexroth AG 7/8

#### Unit dimensions

- 1 Name plate
- 2 Adjustment type "1"
- 3 Adjustment type "2"
- 4 Adjustment type "3"
- 5 Adjustment type "7"
- 6 Space required to remove the key
- 7 Valve mounting bores
- 8 Lock nut SW24
- 9 Hexagon SW10
- 10 Identical seal rings for ports A and B Identical seal rings for ports X and Y
- 11 Pressure gauge connection G1/4, 12 deep; Internal hexagon SW6; Tightening torque  $M_A$  = 20 Nm ±10 %
- 12 Locating pin
- 13 Porting pattern according to ISO 5781-06-07-0-00

Subplates according to data sheet 45062 (separate order) G 460/01 (G3/8) G 461/01 (G1/2)

#### Valve mounting screws (separate order)

4 hexagon socket head cap screws ISO 4762 - M10 x 60 - 10.9-flZn-240h-L Friction coefficient  $\mu_{\text{total}} = 0.09$  to 0.14, Tightening torque  $M_{\text{A}} = 60$  Nm ±10 %, Material No. R913000116