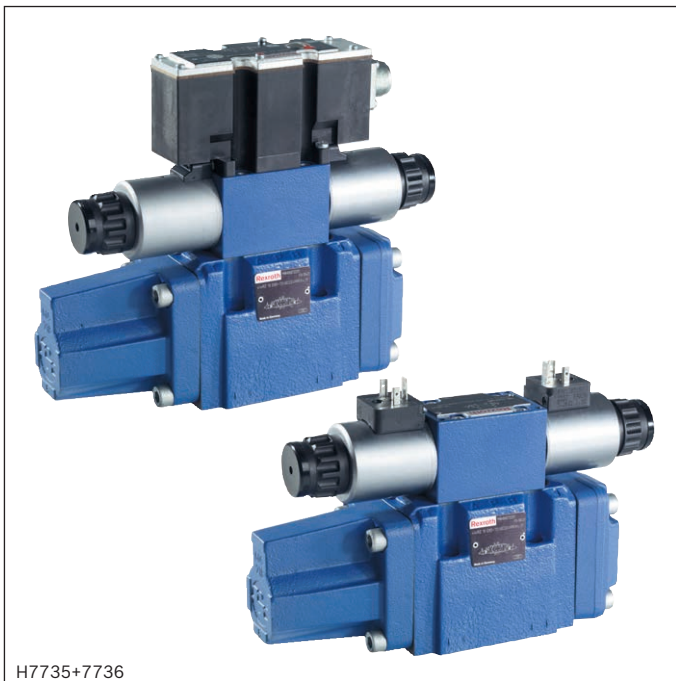


Proportional directional valve, pilot-operated, without electrical position feedback, with or without on-board electronics (OBE)

Type 4WRZ and 4WRZE



H7735+7736

- Size 10 ... 32
- Component series 7X
- Maximum operating pressure 350 bar
- Maximum flow 1600 l/min



Features

- 4/2 and 4/3-way version
- For subplate mounting
- Porting pattern according to ISO 4401
- Control of flow direction and size
- Operation by means of proportional solenoids with central thread and detachable coil
- Spring-centered control spool
- External control electronics
- On-board electronics (OBE) with voltage or current input ('A1' or 'F1')
- Manual override, optional
- CE conformity according to EMC Directive 2014/30/EU

Contents

Features	1
Ordering code	2, 3
Symbols	4, 5
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Block diagram/controller function block	11
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Accessories	27
EMC directive requirements	27
Further information	28

Ordering code

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	15	16	17	18	19
4	WR	Z					7X	/		6E	G24										*

01	4 main ports	4
02	Proportional directional valve, pilot-operated	WR
03	Electro-hydraulic actuation	Z
04	External control electronics	no code
	On-board electronics (OBE)	E
05	Size 10	10
	Size 16	16
	Size 25	25
	Size 32	32
06	Symbols; possible version see page 4 ... 5	

Nominal flow (Δp = 5 bar per control edge)

07	Size 10	
	25 l/min	25
	50 l/min	50
	85 l/min	85
	Size 16	
	125 l/min	125
	180 l/min	180
	Size 25	
	220 l/min	220
	325 l/min	325
	Size 32	
	360 l/min	360
	520 l/min	520
08	Component series 70 ... 79 (70 ... 79: unchanged installation and mounting dimensions)	7X
09	Subplate mounting	no code
10	Proportional solenoid with detachable coil	6E
11	Direct voltage 24 V	G24
12	With concealed manual override	N9 ¹⁾
	Without manual override	no code

Corrosion resistance (outside)

13	None (valve housing with standard paint coating)	no code
	Seawater-resistant	J ²⁾

Pilot oil flow

14	External pilot oil supply, external pilot oil return	no code
	Internal pilot oil supply, external pilot oil return	E
	Internal pilot oil supply, internal pilot oil return	ET
	External pilot oil supply, internal pilot oil return	T

Ordering code

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	15	16	17	18	19
4	WR	Z					7X	/		6E	G24										*

Electrical connection

15	Connector 3-pole (2 + PE) according to EN 175301-803	K4	◇
	Connector, 7-pole (6 + PE) according to EN 175201-804	K31 ³⁾	

Electrical interface

16	External control electronics	no code	◇
	Command value input ±10 V	A1 ³⁾	
	Command value input 4 ... 20 mA	F1 ³⁾	
17	Without pressure reducing valve	no code	◇
	With pressure reducing valve type ZDR 6 DP0-4X/40YM-W80 (permanently set)	D3	


Seal material (observe compatibility of seals with hydraulic fluid used, see page 9)

18	NBR seals	M	◇
	FKM seals	V	
19	Further details in the plain text		

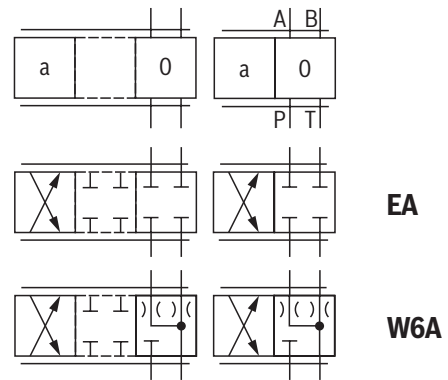
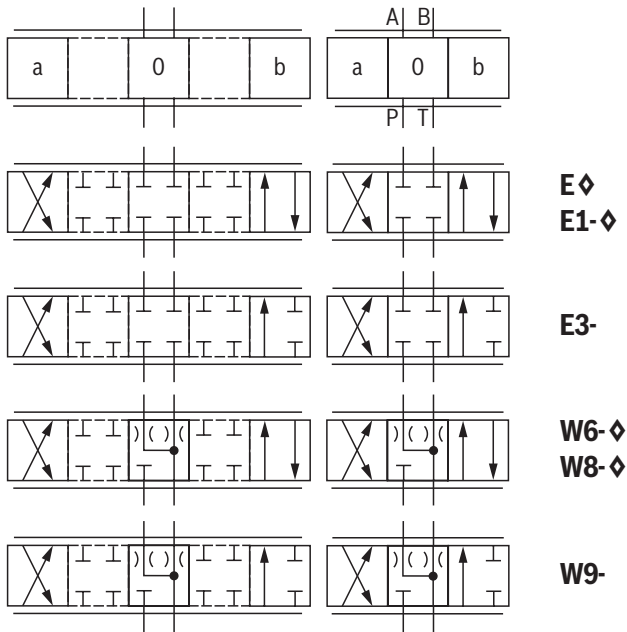
1) Not version "J"

2) Only version "K31"

3) Only version "ZE"

 **Notice:** ◇ = Preferred type

Symbols



Notice:

- Representation according to ISO 1219-1.
Hydraulic interim positions are shown by dashes.
- With symbols W6-, W8-, W9- and W6A, there is a connection in the "0" spool position from A → T and B → T with less than 2% of the relevant nominal cross-section.
- Differential circuit, cylinder piston base at port A.

With symbols E1- and W8-:

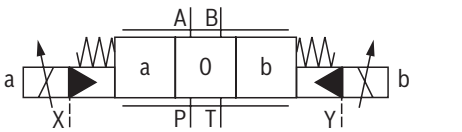
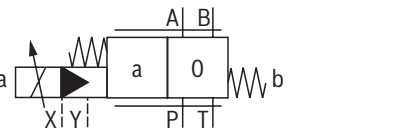
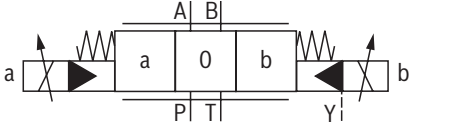
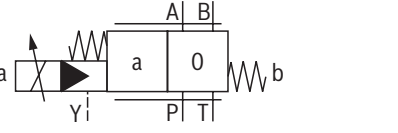
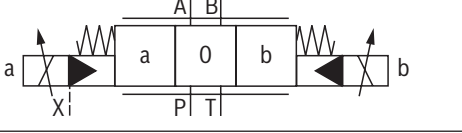
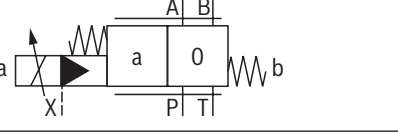
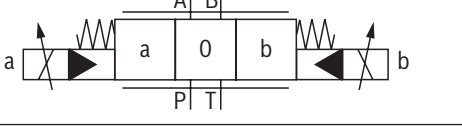
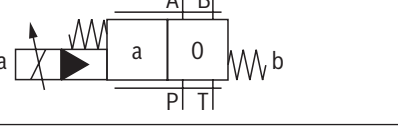
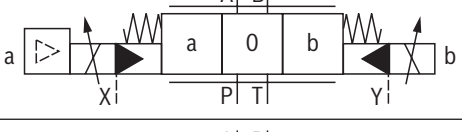
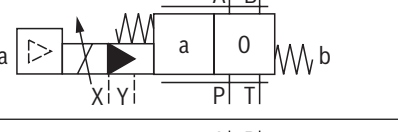
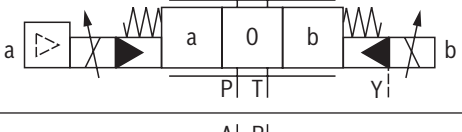
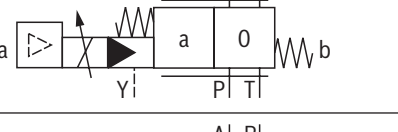
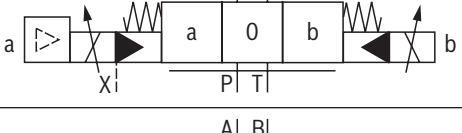
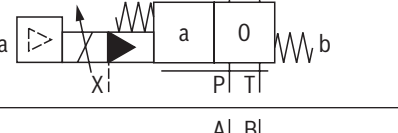
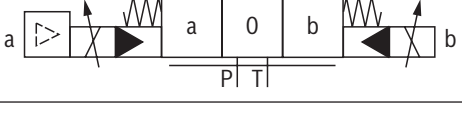
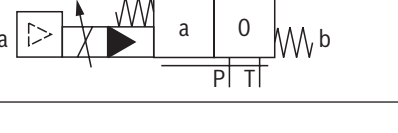
P → A: $q_{V \max}$ B → T: $q_V/2$
P → B: $q_V/2$ A → T: $q_{V \max}$

With symbols E3- and W9-:

P → A: $q_{V \max}$ B → T: blocked
P → B: $q_V/2$ A → T: $q_{V \max}$

Notice: ♦ = Preferred type

Symbols

Type	3 spool positions	2 spool positions	Pilot oil flow
WRZ			"no code"
			"E"
			"T"
			"ET"
WRZE			"no code"
			"E"
			"T"
			"ET"

Function, section

Valves type WRZ(E) are pilot-operated directional valves with operation by proportional solenoid. Their function is to control the flow direction and size.

Design

The valves basically comprise:

- ▶ Pilot control valve (4) with proportional solenoids (2 and 3)
- ▶ Main valve (5) with main control spool (6) and compression spring (7)

Function

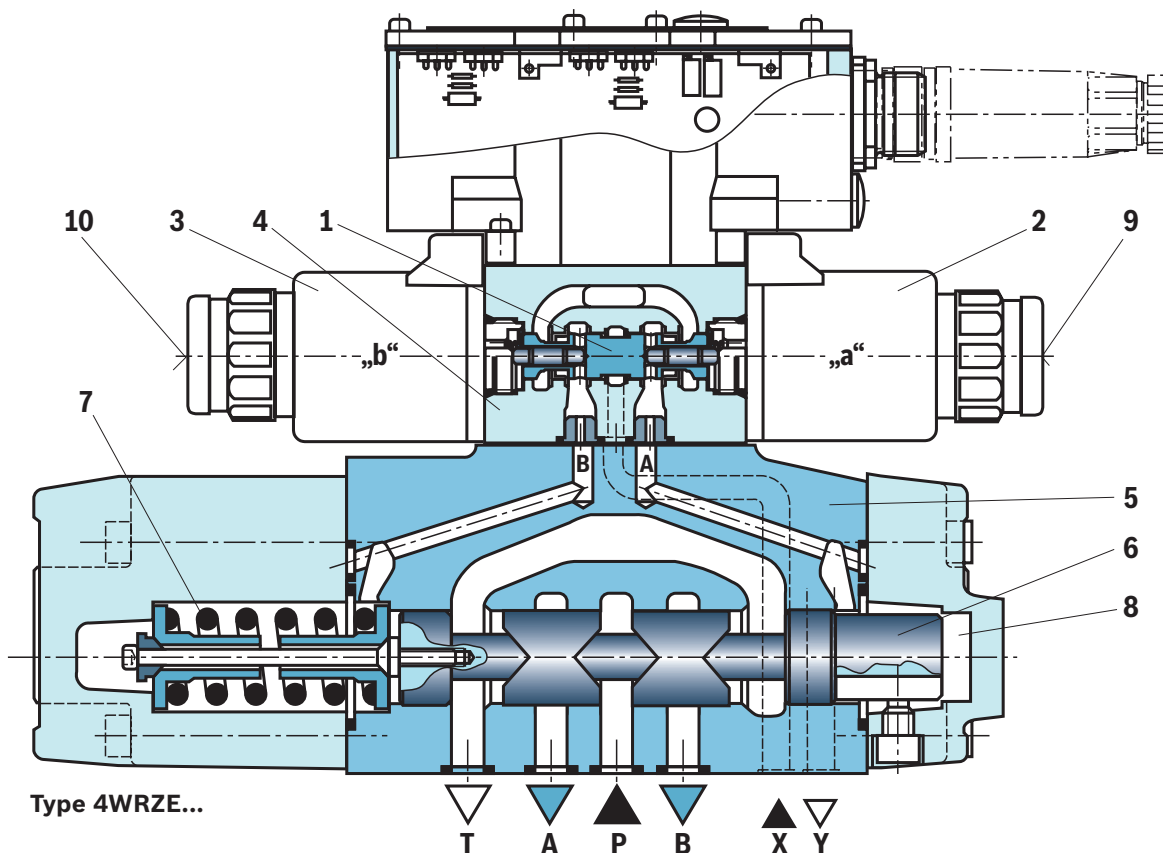
- ▶ With de-energized solenoids (2 and 3), central position of the main control spool (6) by compression spring (7)
- ▶ The main control spool (6) is controlled by the pilot control valve (4); the main control spool is moved proportionally, e.g. by actuating solenoid "b" (3)
 - The control spool (1) is moved to the right, pilot oil enters the pressure chamber (8) via the pilot control valve (4) and deflects the main control spool (6) proportionally to the electric input signal
 - Connection from P→A and B→T via orifice-type cross-sections with progressive flow characteristic

- ▶ Pilot oil supply to the pilot control valve internally via port P or externally via port X
- ▶ Switching off the solenoid (3)
 - The control spool (1) and main control spool (6) are moved back into the central position
- ▶ Flow depending on spool position from P→A and B→T or P→B and A→T(R).

An optional manual override (9 and 10) can be used to move the control spool (1) without solenoid energization.

Notice:

- ▶ Accidental activation of the manual override may lead to uncontrolled machine movements.
- ▶ Due to the design principle, internal leakage is inherent to the valves, which may increase over the life cycle.
- ▶ For information on the pilot control valve (4) see data sheet 29184.



Technical data

(for applications outside these values, please consult us!)

General						
Size		NG	10	16	25	32
Type of connection			Subplate mounting			
Porting pattern			ISO 4401-05-05-05	ISO 4401-07-07-05	ISO 4401-08-08-05	ISO 4401-10-09-05
Mass	► Type WRZ	kg	7.8	11.9	18.2	42.2
	► Type WRZE	kg	8.0	14.0	19.0	43.0
	► Pressure reducing valve "D3"	kg	0.5			
Installation position			Any, preferably horizontal			
Ambient temperature range	► Type WRZ	°C	−20 ... +80			
	► Type WRZE		−20 ... +50			
Storage temperature range (with UV protection)		°C	+5 ... +40			
Maximum storage time		Years	1 (if the storage conditions are observed, refer to the operating instructions 07600-B)			
Maximum relative humidity (no condensation)		%	95			
Protection class according to EN 60529			IP65 (if suitable and correctly mounted mating connectors are used)			
Maximum surface temperature ¹⁾		°C	150			
Sine test according to EN 60068-2-6			10 ... 2000 Hz / maximum of 10 g / 10 cycles / 3 axes			
Noise test according to EN 60068-2-64			20 ... 2000 Hz / 10 g _{RMS} / 30 g peak / 30 min / 3 axes			
Transport shock according to EN 60068-2-27			15 g / 11 ms / 3 shocks / 3 axes			
Conformity	► CE according to EMC Directive 2014/30/EU, tested according to		EN 61000-6-2 and EN 61000-6-3			
	► RoHS Directive		2011/65/EU ²⁾			

¹⁾ Due to the rising surface temperatures of the solenoid coils, the standards ISO 13732-1 and ISO 4413 are to be observed.

²⁾ The product fulfills the substance requirements of the RoHS Directive 2011/65/EU.



Notice:
EMC directive conditions see page 27.

Technical data

(for applications outside these values, please consult us!)

Hydraulics							
Size		NG	10	16	25	32	
Maximum operating pressure	► Ports A, B, P – Pilot control valve	External pilot oil supply	bar	100			
		Internal pilot oil supply	bar	100			
		Pressure reducing valve "D3"		350			
	– Main valve	bar	350				
	► Ports T, R	External pilot oil supply	bar	315	250	250	150
	► Port T	Internal pilot oil supply	bar	30			
	► Port Y		bar	30			
Minimum operating pressure	► Ports A, B, P – Pilot control valve	External pilot oil supply	bar	30			
		Internal pilot oil supply	bar	30			
		Pressure reducing valve "D3"	bar	100			
Hydraulic fluid			See table page 9				
Hydraulic fluid temperature range (at the valve working ports)			°C	–20 ... +80			
Viscosity range		► Recommended	mm²/s	30 ... 46			
		► Maximum admissible	mm²/s	20 ... 380			
Maximum admissible degree of contamination of the hydraulic fluid; cleanliness class according to ISO 4406 (c)		► Pilot control valve		Class 18/16/13 ³⁾			
		► Main valve		Class 20/18/15 ³⁾			
Maximum flow		► Main valve	l/min	170	460	870	1600
Pilot flow			l/min	3.5	5.5	7	15.9

³⁾ 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 life cycle of the components.

Technical data

(for applications outside these values, please consult us!)

Hydraulic fluid	Classification	Suitable sealing materials	Standards	Data sheet
Mineral oils	HL, HLP, HLPD, HVLP, HVLDP	NBR, FKM	DIN 51524	90220
Bio-degradable	► Insoluble in water	HETG	ISO 15380	90221
		HEES		
	► Soluble in water	HEPG	ISO 15380	
Flame-resistant	► Water-free	HFDU (glycol base)	ISO 12922	90222
		HFDU (ester base)		
		HFDR		
	► Containing water	HFC (Fuchs: Hydrotherm 46M, Renosafe 500; Petrofer: Ultra Safe 620; Houghton: Safe 620; Union: Carbide HP5046)	ISO 12922	90223



Important information on hydraulic fluids:

- For further information and data on the use of other hydraulic fluids, please refer to the data sheets above or contact us.
- There may be limitations regarding the technical valve data (temperature, pressure range, life cycle, maintenance intervals, etc.).
- The ignition temperature of the hydraulic fluid used must be 50 K higher than the maximum surface temperature.
- **Bio-degradable and flame-resistant – containing water:**
If components with galvanic zinc coating (e.g. version "J3" or "J5") or parts containing zinc are used, small amounts of dissolved zinc may get into the hydraulic system and cause accelerated aging of the hydraulic fluid. Zinc soap may form as a chemical reaction product, which may clog filters, nozzles and solenoid valves – particularly in connection with local heat input.

► Flame-resistant – containing water:

- Due to the increased cavitation tendency with HFC hydraulic fluids, the life cycle of the component may be reduced by up to 30% as compared to the use with mineral oil HLP. In order to reduce the cavitation effect, it is recommended – if possible specific to the installation – backing up the return flow pressure in ports T to approx. 20% of the pressure differential at the component.
- Dependent on the hydraulic fluid used, the maximum ambient and hydraulic fluid temperature must not exceed 50 °C. In order to reduce the heat input into the component, the command value profile is to be adjusted for proportional and high-response valves.

Static / dynamic

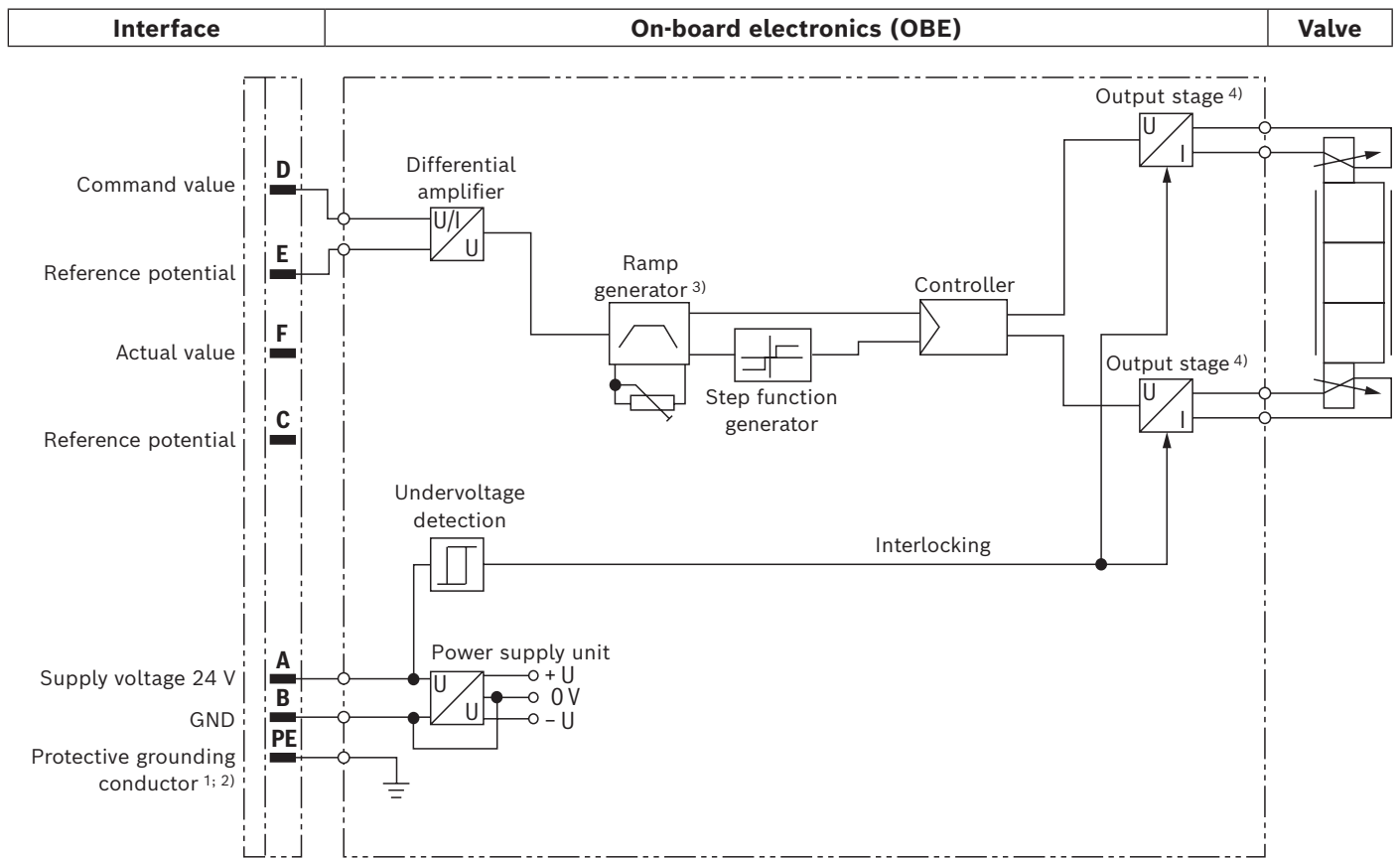
Hysteresis	%	<6
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Technical data
 (for applications outside these values, please consult us!)

Electrical, on-board electronics (OBE) – interface "A1"				
Supply voltage	► Nominal value		VDC	24
	► Minimum		VDC	19
	► Maximum		VDC	36
	► Maximum residual ripple		Vpp	2.5
	► Maximum power consumption		VA	40
	► Current consumption	Maximum	A	<2
		Impulse current	A	3
	► Fuse protection, external		AT	2.5 (time-lag)
Relative duty cycle time according to VDE 0580			%	S1 (continuous operation)
Functional ground and screening			See pin assignment, page 12	
Maximum voltage of the differential inputs against 0 V			D→B; E→B (max. 18 V)	
Command value (differential amplifier)	► Measurement range		V	±10
	► Input resistance		kΩ	>100

Electrical, on-board electronics (OBE) – interface "F1"				
Supply voltage	► Nominal value		VDC	24
	► Minimum		VDC	19
	► Maximum		VDC	36
	► Maximum residual ripple		Vpp	2.5
	► Maximum power consumption		VA	40
	► Current consumption	Maximum	A	<2
		Impulse current	A	3
	► Fuse protection, external		A _T	2.5 (time-lag)
Relative duty cycle time according to VDE 0580			%	S1 (continuous operation)
Functional ground and screening			See pin assignment, page 12	
Maximum voltage of the differential inputs against 0 V			D→B; E→B (max. 18 V)	
Command value	► Input current range		mA	4 ... 20
	► Input resistance		Ω	100

Block diagram/controller function block



1) The protective grounding conductor (PE) is connected to the valve housing.

2) Port PE is connected to the cooling element and the valve housing

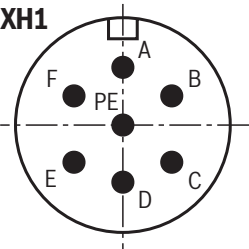
3) Ramp adjustable from 0 ... 2.5 s from the outside, both for T_{up} and T_{down}

4) Output stages flow-controlled

Electrical connections and assignment

Connector pin assignment "XH1", 6-pole + PE according to DIN 43563

Pin	Interface assignment	
	"A1"	"F1"
A	Supply voltage	Supply voltage
B	GND	GND
C	Cannot be used	Cannot be used
D	Command value	Command value
E	Reference potential command value	Reference potential command value
F	Cannot be used	Cannot be used
PE	Functional ground (directly connected to the valve housing)	



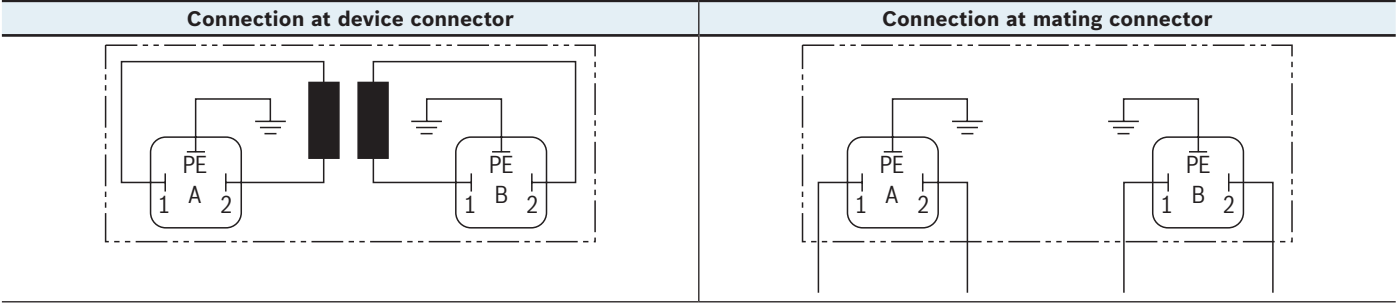
Notice:

Mating connectors, separate order, see page 27 and data sheet 08006.

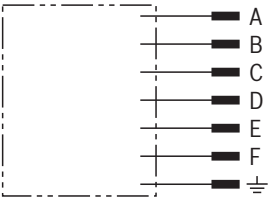
		Command value	Actual value	Switching positions	
Positive	"A1"	0 ... +10 V	–	P→A; B→T	P→B; A→T
	"F1"	12 ... 20 mA	–		
Negative	"A1"	0 ... -10 V	–	P→B; A→T	–
	"F1"	12 ... 4 mA	–		
Connection cable	▶ Up to 20 m cable length type LiYCY 7 x 0.75 mm ²				
	▶ Up to 40 m cable length type LiYCY 7 x 1.0 mm ²				
	<div>▶ EMC-compliant installation:</div> <div><div>– Apply screening to both line ends</div><div>– Use metal mating connector (see page 27)</div></div> <div>▶ Alternatively up to 30 m cable length admissible</div> <div><div>– Apply screening on supply side</div><div>– Plastic mating connector (see page 27) can be used</div></div>				

External control electronics

Without corrosion resistance



With corrosion resistance "J"



Pin	Connection with
A	Solenoid A
B	Solenoid B
C	Solenoid A
D	Solenoid B
E	n.c.
F	n.c.
PE	Valve housing



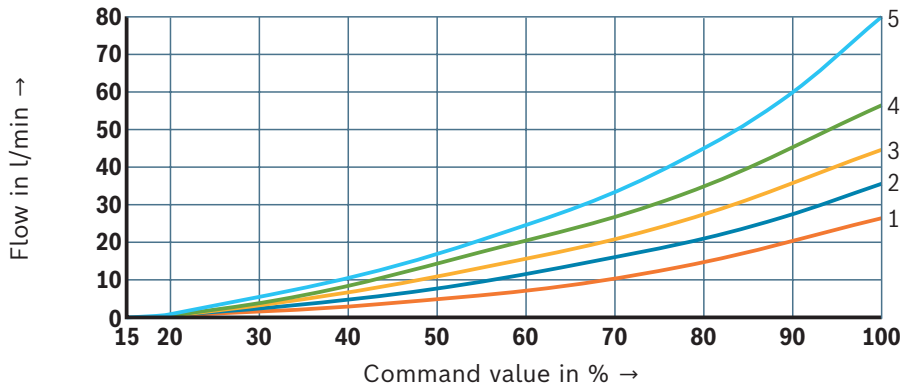
Notice:

Mating connectors, separate order, see page 27 and data sheet 08006.

Characteristic curves: Size 10
(measured with HLP46, $\vartheta_{oil} = 40 \pm 5 \text{ }^{\circ}\text{C}$)

Flow/signal function (rated flow 25 l/min at $\Delta p = 10 \text{ bar}$)

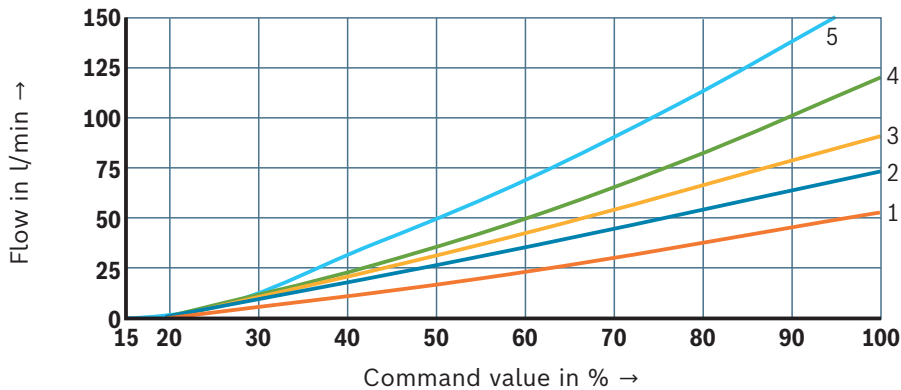
Symbol E, W6-, EA, W6A; P→A; B→T or P→B; A→T



- 1 Δp 10 bar constant
- 2 Δp 20 bar constant
- 3 Δp 30 bar constant
- 4 Δp 50 bar constant
- 5 Δp 100 bar constant

Flow/signal function (rated flow 50 l/min at $\Delta p = 10 \text{ bar}$)

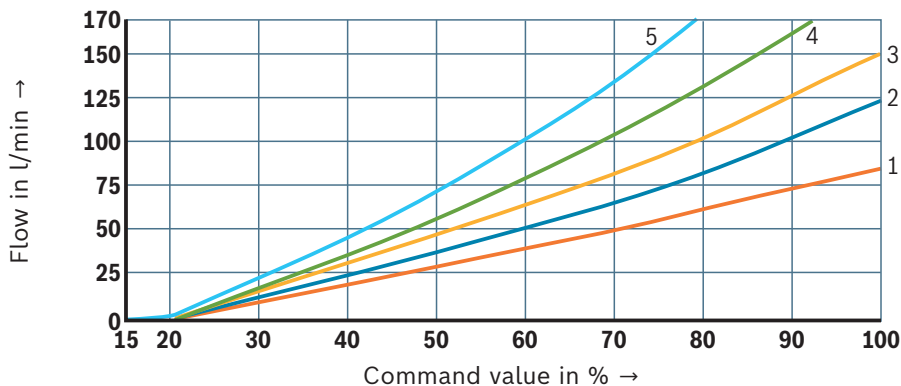
Symbol E, W6-, EA, W6A; P→A; B→T or P→B; A→T



- 1 Δp 10 bar constant
- 2 Δp 20 bar constant
- 3 Δp 30 bar constant
- 4 Δp 50 bar constant
- 5 Δp 100 bar constant

Flow/signal function (rated flow 85 l/min at $\Delta p = 10 \text{ bar}$)

Symbol E, W6-, EA, W6A; P→A; B→T or P→B; A→T



- 1 Δp 10 bar constant
- 2 Δp 20 bar constant
- 3 Δp 30 bar constant
- 4 Δp 50 bar constant
- 5 Δp 100 bar constant

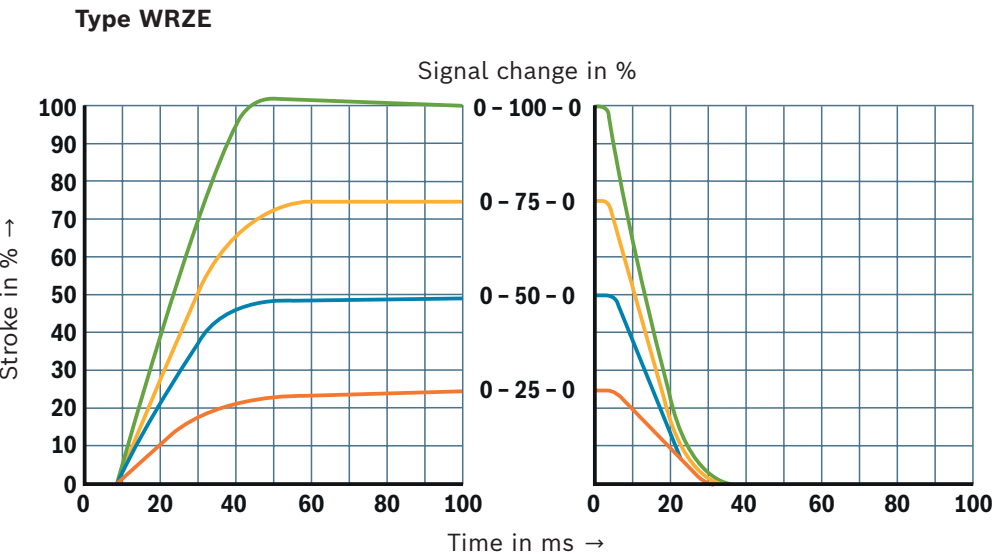
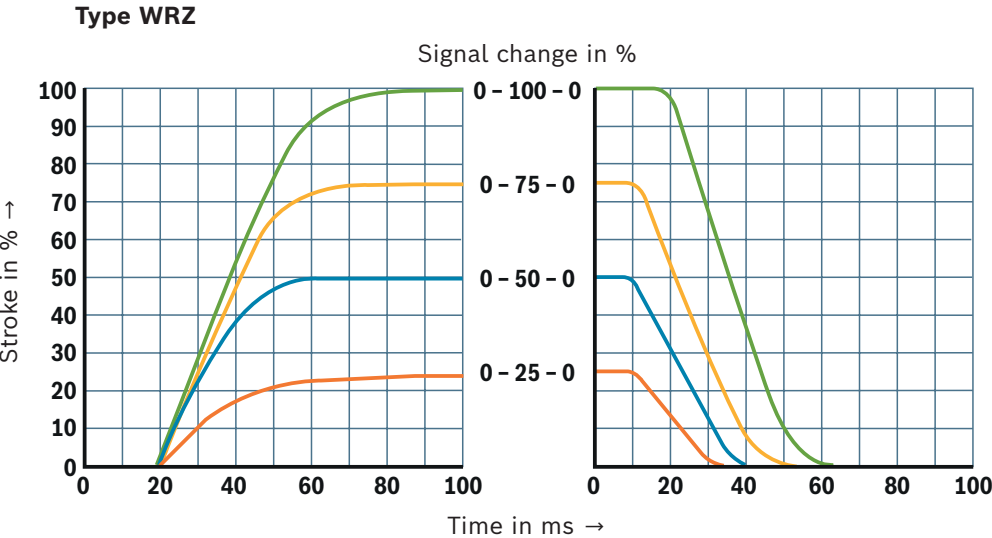


Notice:

Typical characteristic curves which are subject to tolerance variations.

Characteristic curves: Size 10
(measured with HLP46, $\vartheta_{oil} = 40 \pm 5 \text{ }^{\circ}\text{C}$)

Transition function with stepped electric input signals ($p_{St} = 50 \text{ bar}$)
Symbol E, W6-, EA, W6A

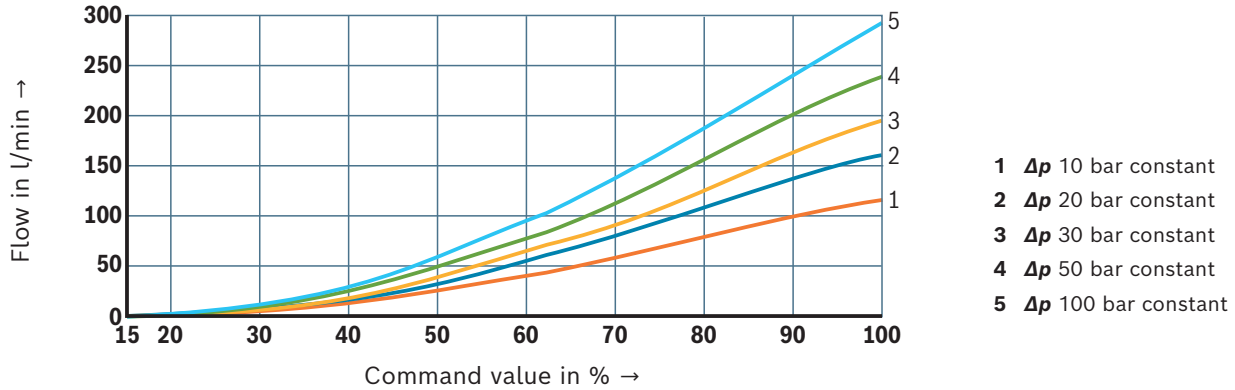


Notice:
Typical characteristic curves which are subject to tolerance variations.

Characteristic curves: Size 16
(measured with HLP46, $\vartheta_{oil} = 40 \pm 5 \text{ }^{\circ}\text{C}$)

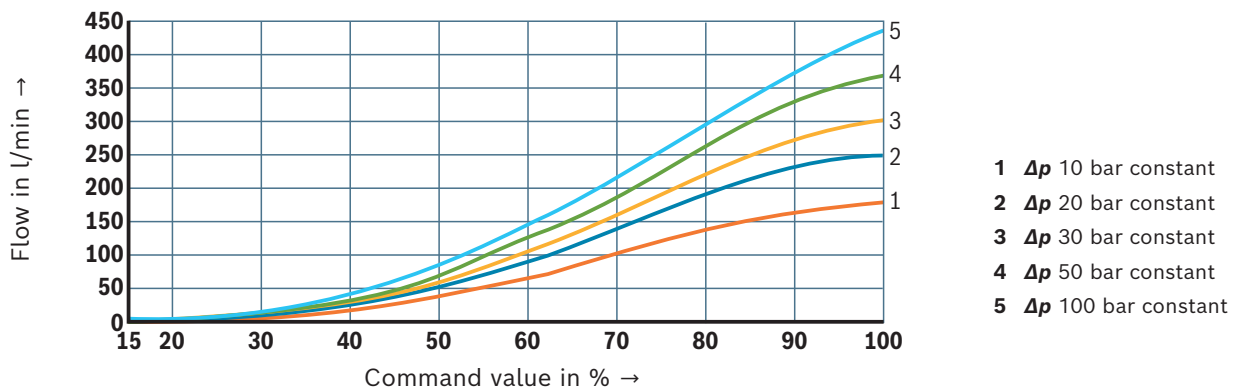
Flow/signal function (rated flow 125 l/min at $\Delta p = 10 \text{ bar}$)

Symbol E, W6-, EA, W6A; P→A; B→T or P→B; A→T



Flow/signal function (rated flow 180 l/min at $\Delta p = 10 \text{ bar}$)

Symbol E, W6-, EA, W6A; P→A; B→T or P→B; A→T

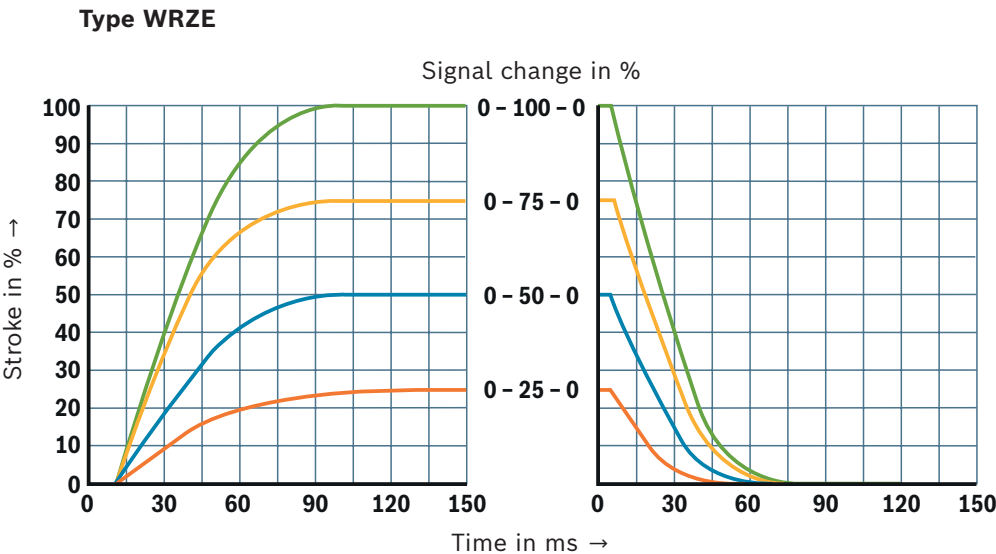
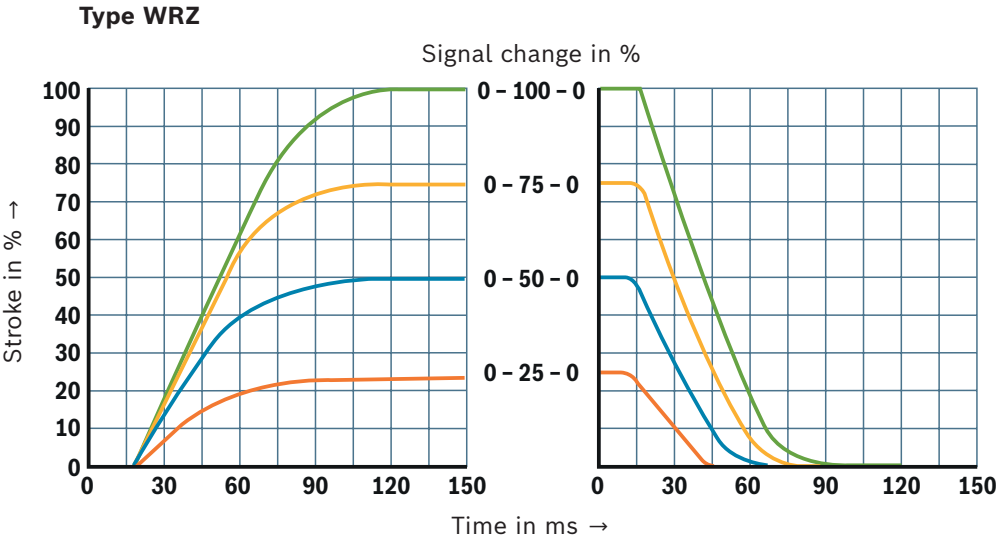


Notice:

Typical characteristic curves which are subject to tolerance variations.

Characteristic curves: Size 16
(measured with HLP46, $\vartheta_{oil} = 40\pm5\text{ }^{\circ}\text{C}$)

Transition function with stepped electric input signals ($p_{St} = 50\text{ bar}$)
Symbol E, W6-, EA, W6A

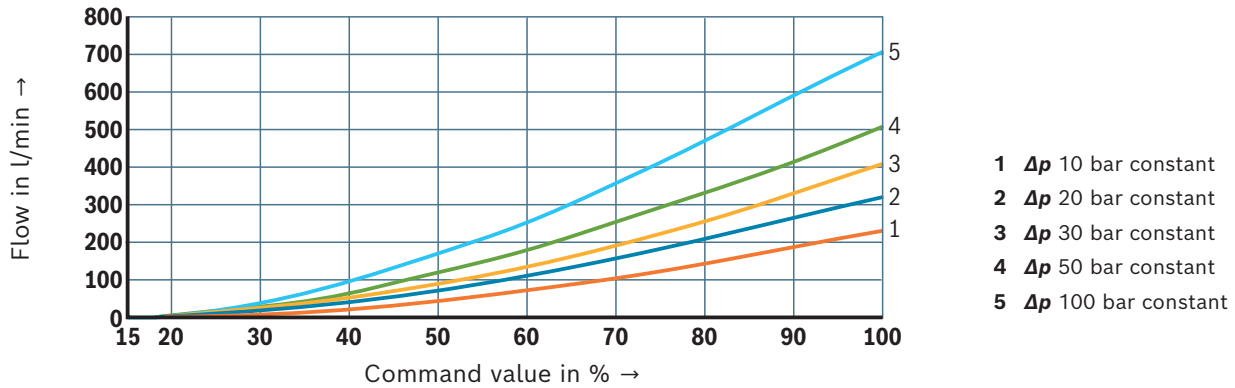


Notice:
Typical characteristic curves which are subject to tolerance variations.

Characteristic curves: Size 25
(measured with HLP46, $\vartheta_{oil} = 40 \pm 5 \text{ }^{\circ}\text{C}$)

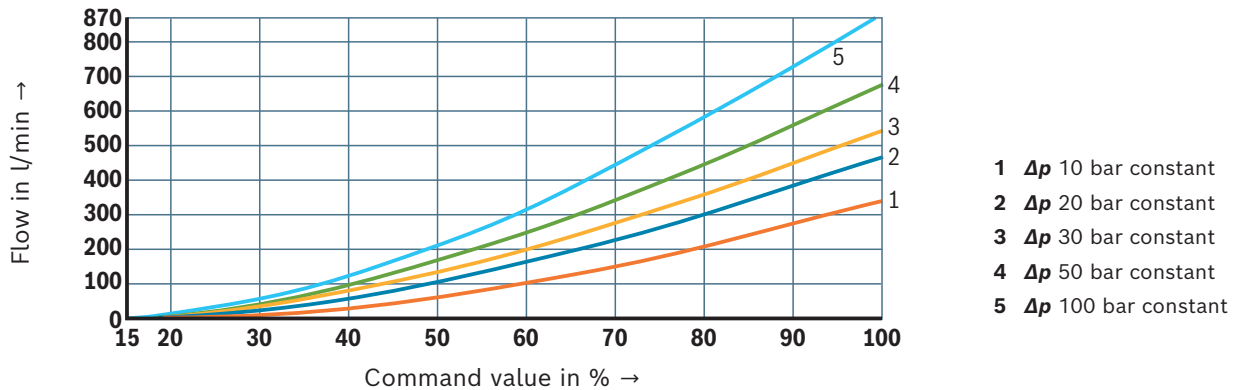
Flow/signal function (rated flow 220 l/min at $\Delta p = 10 \text{ bar}$)

Symbol E, W6-, EA, W6A; P→A; B→T or P→B; A→T



Flow/signal function (rated flow 325 l/min at $\Delta p = 10 \text{ bar}$)

Symbol E, W6-, EA, W6A; P→A; B→T or P→B; A→T

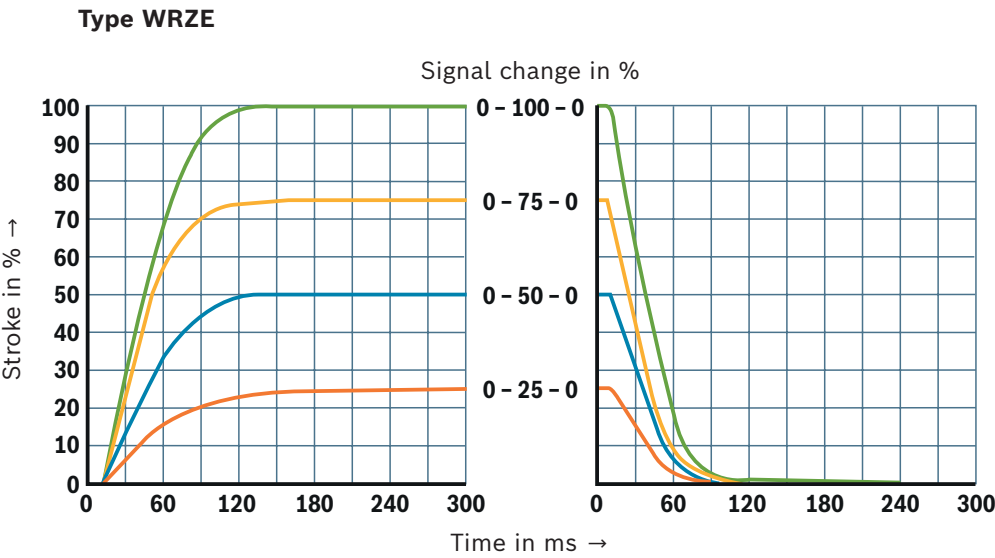
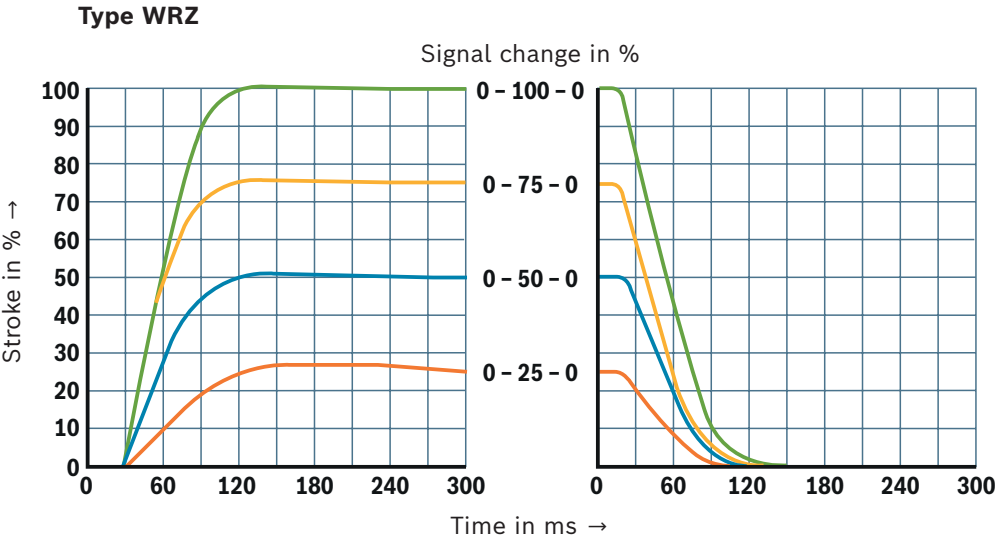


Notice:

Typical characteristic curves which are subject to tolerance variations.

Characteristic curves: Size 25
(measured with HLP46, $\vartheta_{oil} = 40 \pm 5 \text{ }^{\circ}\text{C}$)

Transition function with stepped electric input signals ($p_{St} = 50 \text{ bar}$)
Symbol E, W6-, EA, W6A



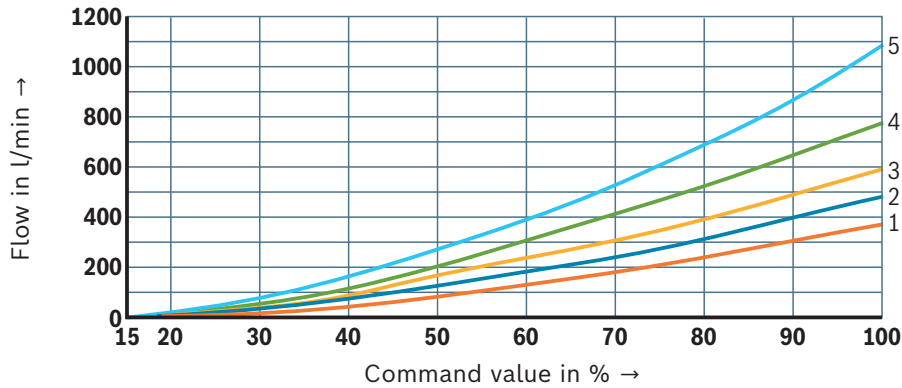
Notice:

Typical characteristic curves which are subject to tolerance variations.

Characteristic curves: Size 32
(measured with HLP46, $\vartheta_{oil} = 40 \pm 5 \text{ } ^\circ\text{C}$)

Flow/signal function (rated flow 360 l/min at $\Delta p = 10 \text{ bar}$)

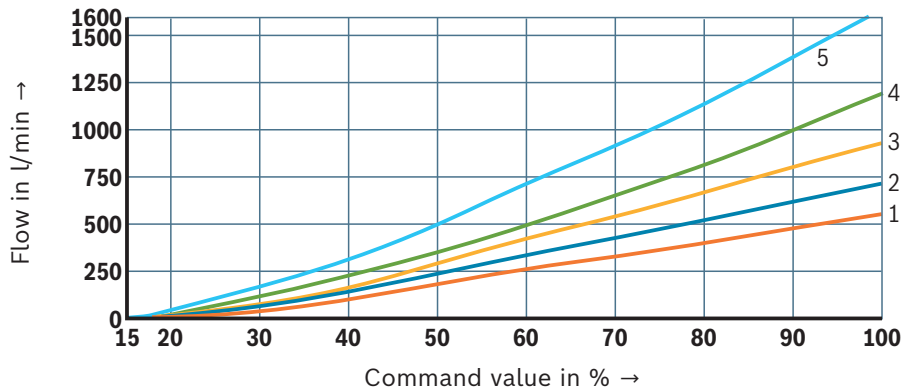
Symbol E, W6-, EA, W6A; P→A; B→T or P→B; A→T



- 1 Δp 10 bar constant
- 2 Δp 20 bar constant
- 3 Δp 30 bar constant
- 4 Δp 50 bar constant
- 5 Δp 100 bar constant

Flow/signal function (rated flow 520 l/min at $\Delta p = 10 \text{ bar}$)

Symbol E, W6-, EA, W6A; P→A; B→T or P→B; A→T



- 1 Δp 10 bar constant
- 2 Δp 20 bar constant
- 3 Δp 30 bar constant
- 4 Δp 50 bar constant
- 5 Δp 100 bar constant

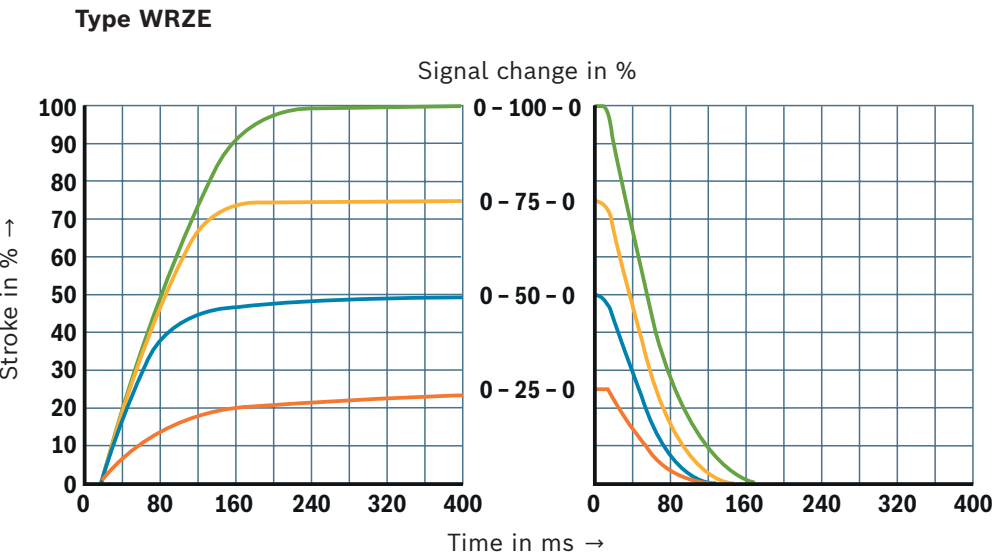
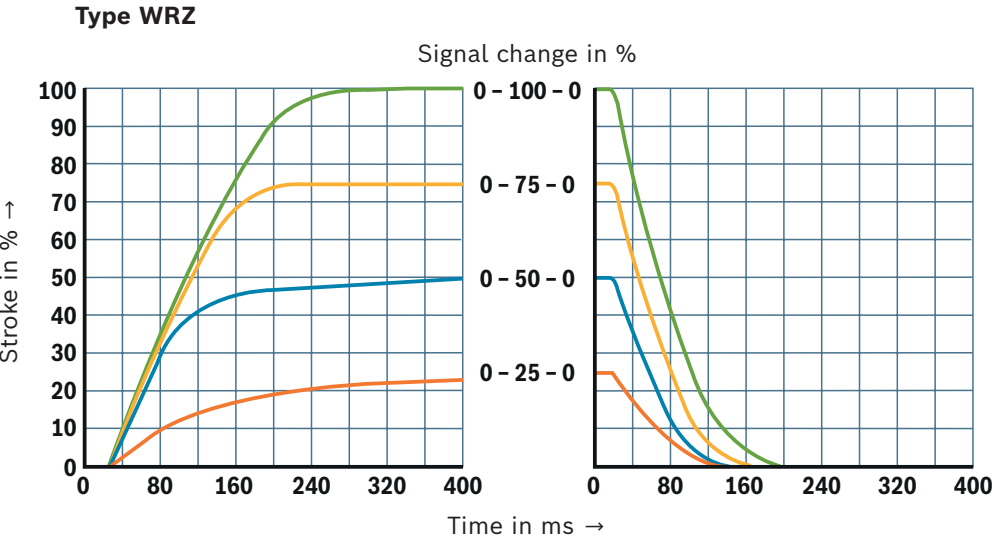


Notice:

Typical characteristic curves which are subject to tolerance variations.

Characteristic curves: Size 32
(measured with HLP46, $\vartheta_{oil} = 40 \pm 5 \text{ }^{\circ}\text{C}$)

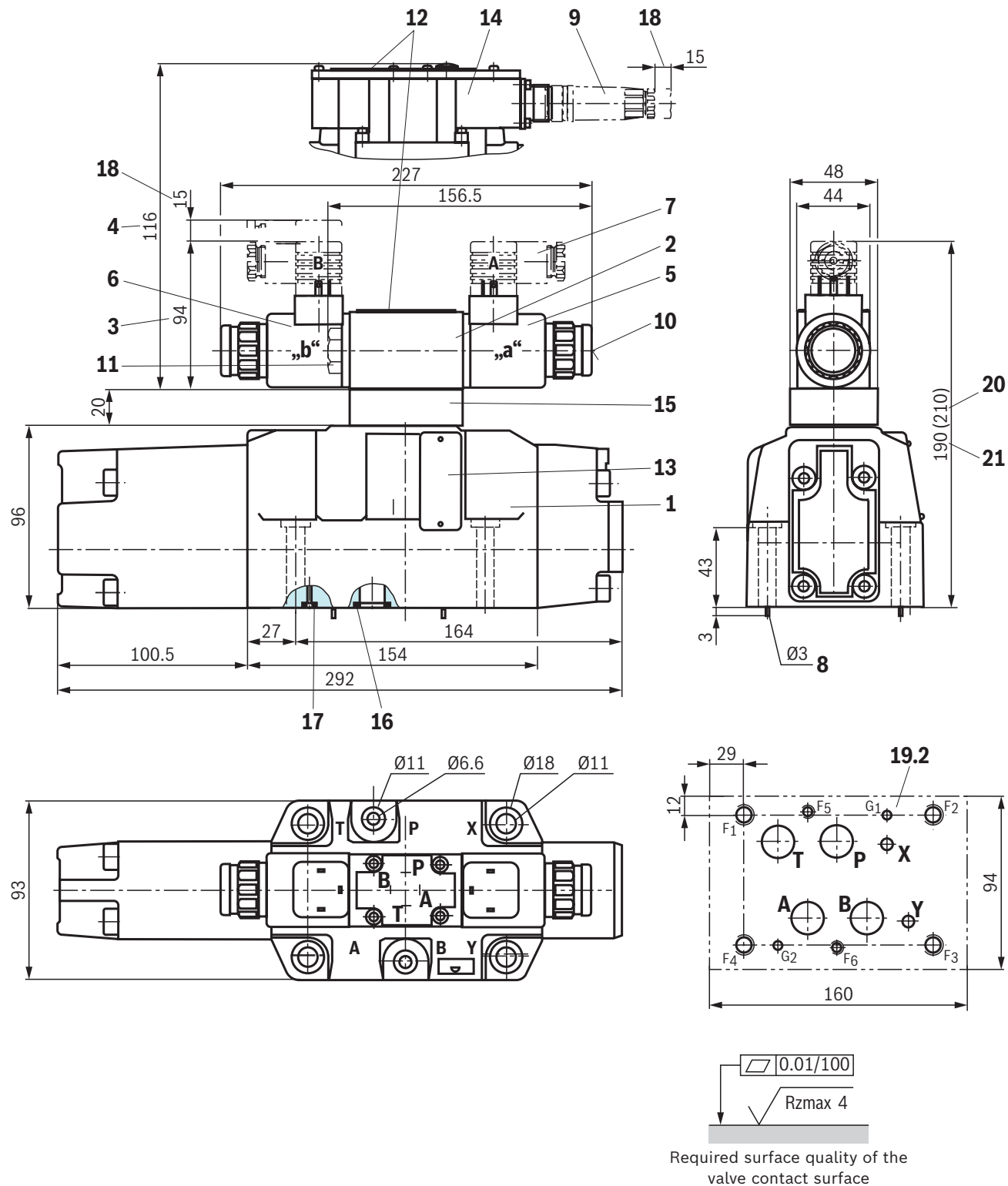
Transition function with stepped electric input signals ($p_{St} = 50 \text{ bar}$)
Symbol E, W6-, EA, W6A



Notice:

Typical characteristic curves which are subject to tolerance variations.

Dimensions: Size 16
(dimensions in mm)

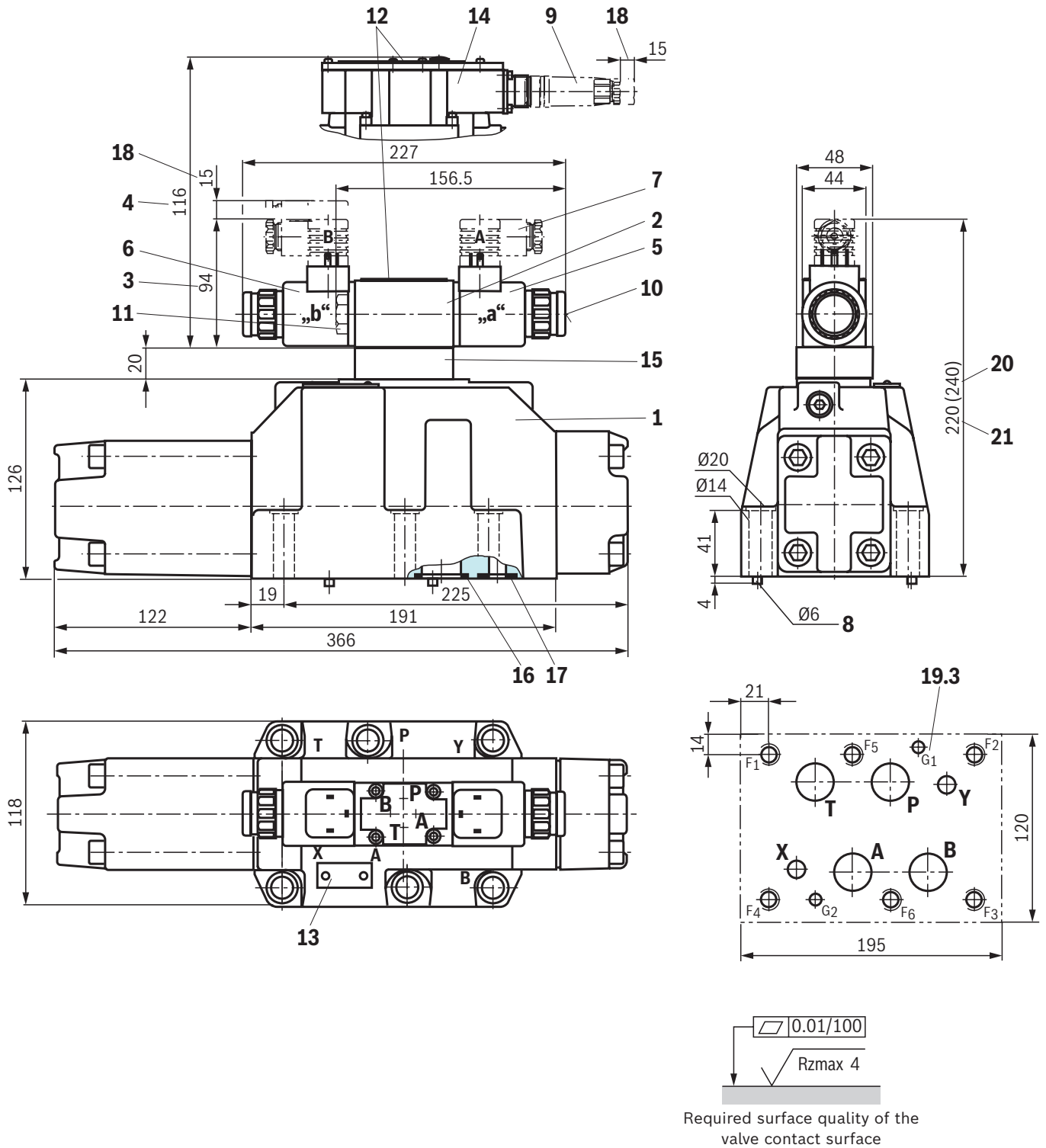


For **item explanations**, **valve mounting screws** and **subplates** see page 25 and 26.

Notice:

The dimensions are nominal dimensions which are subject to tolerances.

Dimensions: Size 25
(dimensions in mm)



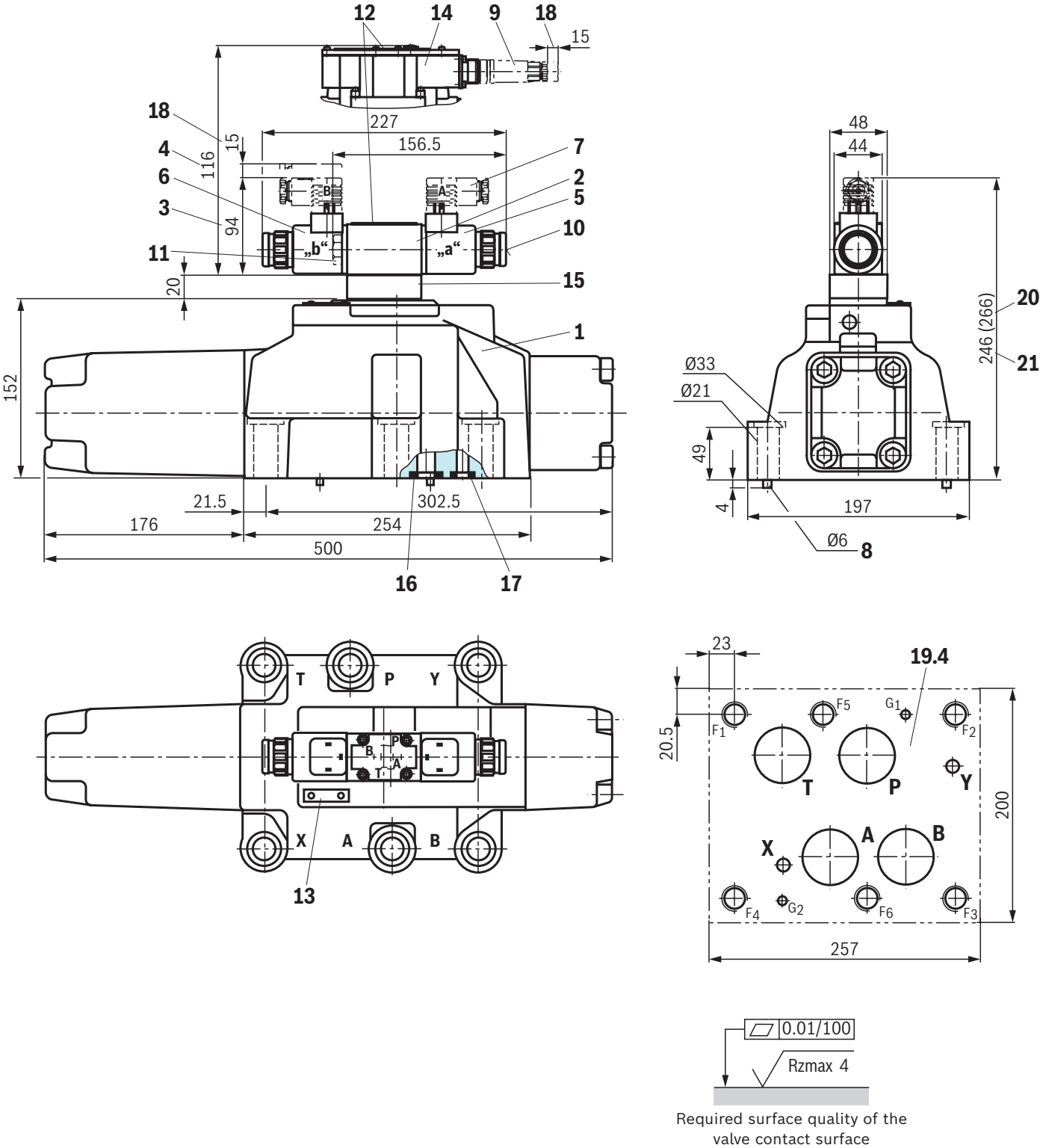
For **item explanations**, **valve mounting screws** and **subplates** see page 25 and 26.



Notice:

The dimensions are nominal dimensions which are subject to tolerances.

Dimensions: Size 32
(dimensions in mm)



For **item explanations, valve mounting screws** and **subplates** see page 25 and 26.



Notice:

The dimensions are nominal dimensions which are subject to tolerances.

Dimensions

- 1** Main valve
- 2** Pilot control valve
- 3** Dimension for type 4WRZ (no corrosion resistance)
- 4** Dimension for type 4WRZE
- 5** Proportional solenoid "a"
- 6** Proportional solenoid "b"
- 7** Mating connector without circuitry for connector "K4" (separate order, see page 27 and data sheet 08006)
- 8** Locking pin
- 9** Mating connector for connector "K31" (separate order, see page 27 and data sheet 08006)
- 10** Concealed manual override "N9"
- 11** Plug screw for valves with one solenoid
- 12** Name plate for pilot control valve
- 13** Name plate for main valve
- 14** On-board electronics (OBE)
- 15** Pressure reducing valve "D3"
- 16** Identical seal rings for ports A, B, P, T, and T1
- 17** Identical seal rings for ports X, Y, and L
- 18** Space required to remove the mating connector
- 19.1** Machined valve contact surface; porting pattern according to ISO 4401-05-05-0-05; ports X and Y as required
- 19.2** Machined valve contact surface; porting pattern according to ISO 4401-07-07-0-05; ports X and Y as required; deviating from the standard: Ports A, B, P, T Ø20 mm.
- 19.3** Machined valve contact surface; porting pattern according to ISO 4401-08-08-0-05; ports X and Y as required
- 19.4** Machined valve contact surface; porting pattern according to ISO 4401-10-09-0-05, ports X and Y as required; deviating from the standard: Ports A, B, P, T Ø38 mm.
- 20** Dimension for version without pressure reducing valve
- 21** Dimension for version with pressure reducing valve "D3"



Notice:

For type 4WRZ..., use the following throttle inserts in channel A and B of the pilot control valve:

NG	Throttle insert Ø in mm	Material number
10	1.8	R900158510
16	2.0	R900158547
25	2.8	R900157948
32	–	–

Dimensions

Valve mounting screws (separate order)

Size	Quantity	Hexagon socket head cap screws	Material number
10	4	ISO 4762 - M6 x 45 - 10.9-fLZn-240h-L Friction coefficient μ_{total} = 0.09 ... 0.14; tightening torque M_A = 13.5 Nm \pm 10%	R913000258
	or		
16	4	ISO 4762 - M6 x 45 - 10.9 Friction coefficient μ_{total} = 0.12 ... 0.17; tightening torque M_A = 15.5 Nm \pm 10%	Not included in the Rexroth delivery range
	2	ISO 4762 - M6 x 60 - 10.9-fLZn-240h-L Friction coefficient μ_{total} = 0.09 ... 0.14; tightening torque M_A = 12.2 Nm \pm 10%	R913000115
	4	ISO 4762 - M10 x 60 - 10.9-fLZn-240h-L Friction coefficient μ_{total} = 0.09 ... 0.14; tightening torque M_A = 58 Nm \pm 20%	R913000116
	or		
	2	ISO 4762 - M6 x 60 - 10.9 Friction coefficient μ_{total} = 0.09 ... 0.14; tightening torque M_A = 15.5 Nm \pm 10%	Not included in the Rexroth delivery range
	4	ISO 4762 - M10 x 60 - 10.9 Friction coefficient μ_{total} = 0.09 ... 0.14; tightening torque M_A = 75 Nm \pm 20%	
25	6	ISO 4762 - M12 x 60 - 10.9-fLZn-240h-L Friction coefficient μ_{total} = 0.09 ... 0.14; tightening torque M_A = 100 Nm \pm 20%	R913000121
	or		
32	6	ISO 4762 - M12 x 60 - 10.9 Friction coefficient μ_{total} = 0.09 ... 0.14; tightening torque M_A = 130 Nm \pm 20%	Not included in the Rexroth delivery range
	6	ISO 4762 - M20 x 80 - 10.9-fLZn-240h-L Friction coefficient μ_{total} = 0.09 ... 0.14; tightening torque M_A = 340 Nm \pm 20%	R901035246
	or		
	6	ISO 4762 - M20 x 80 - 10.9 Friction coefficient μ_{total} = 0.09 ... 0.14; tightening torque M_A = 430 Nm \pm 20%	Not included in the Rexroth delivery range



Notice:

For reasons of stability, only the specified valve mounting screws may be used.

Subplates (separate order) with porting pattern according to ISO 4401, see data sheet 45100.

Accessories (separate order)

Mating connectors and cable sets

Pos. ¹⁾	Designation	Version	Short designation	Material number	Data sheet
9	Mating connector; for valves with round connector, 6-pole + PE	Straight, metal, PG11	7PZ31...M	R900223890	08006
		Straight, plastic, PG11	7PZ31...K	R900021267	
7	Mating connector; for valves with "K4" connector, 2-pole + PE, design A	Without circuitry, M16 x 1.5, 0 ... 250 V, "a"	Z4	R901017010	08006
		Without circuitry, M16 x 1.5, 0 ... 250 V, "b"		R901017011	

¹⁾ See dimensions page 21 ... 24.

External control electronics

	Type	Data sheet
Modular design	VT-MSPA1-2X	30232

EMC directive requirements

- ▶ Shielded connection cables must be used for the electrical connection. The shielding must be placed on both sides.
- ▶ A metal mating connector must be used to make contact between the cable shielding and the valve.
- ▶ A separate EMC-approved power supply unit must be provided for each valve, e.g. one that is CE-compliant.
- ▶ The production of a low impedance connection is established via the professional installation of the valve on a grounded metal manifold block in the system.
- ▶ In a strong electro-magnetic environment, further EMC measures may be required, such as shielding of the complete device via metal housings or the use of ferrites on supply and signal lines.

Further information

► Proportional pressure reducing valve type 3DREPE	Data sheet 29184
► Subplates	Data sheet 45100
► Hydraulic fluids based on mineral oils	Data sheet 90220
► Environmentally compatible hydraulic fluids	Data sheet 90221
► Flame-resistant, water-free hydraulic fluids	Data sheet 90222
► Flame-resistant hydraulic fluids – containing water	Data sheet 90223
► Reliability characteristics according to EN ISO 13849	Data sheet 08012
► Mating connectors and cable sets for valves and sensors	Data sheet 08006
► Hydraulic valves for industrial applications	Operating instructions 07600-B
► Information on available spare parts	www.boschrexroth.com/spc

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