

Proportionaldirectional
valves

Direct-operated valves											
Type	Typical case of application (hydraulic) ¹⁾				Features						
	Open control loop	Position control with low accuracy	Position control with high accuracy	Pressure control	Externalelectronics	Integrated electronics (OBE)	Electrical position feedback	IO-Link	Multi-Ethernet	Integrated safety function	Motion control
4WRA, 4WRAE	👍	👎	👎	👎	○	○	—	—	—	—	—
4WRE, 4WREE	👍	👍	👎	👎	○	○	●	—	—	—	—
4WRPE, 4WRPF, 4WRPQ	👍	👍	👎	👍	—	●	●	○	○	○	○ ²⁾
4WRPDH, 4WRPEH, 4WRPFH	👎	👎	👍	👍	—	●	●	○	○	●	●
4WRREH	👎	👎	👍	👍	—	●	●	—	—	—	—

Pilot-operated valves											
Type	Typical case of application (hydraulic) ¹⁾				Features						
	Open control loop	Position control with low accuracy	Position control with high accuracy	Pressure control	Externalelectronics	Integrated electronics (OBE)	Electrical position feedback	IO-Link	Multi-Ethernet	Integrated safety function	Motion control
4WRZ, 4WRZE	👍	👎	👎	👎	○	○	—	—	—	○ ³⁾	—
4WRKE	👍	👎	👎	👎	—	●	●	—	—	○ ³⁾	—
4WRLD, 4WRLE, 4WRLF	👎	👍	👍	👍	—	●	●	○	○	○	○
4WRTE	👎	👎	👍	👍	—	●	●	—	—	○ ³⁾	—
4WRVE	👎	👎	👍	👍	—	●	●	—	—	—	—
4WRGE	👎	👎	👍	👍	—	●	●	—	—	—	—
4WRDE	👎	👎	👍	👍	—	●	●	—	—	—	—

¹⁾ Guidelines, no performance guarantee
²⁾ Pressure / flow control
³⁾ With spool position monitoring

○ = optional
● = integrated

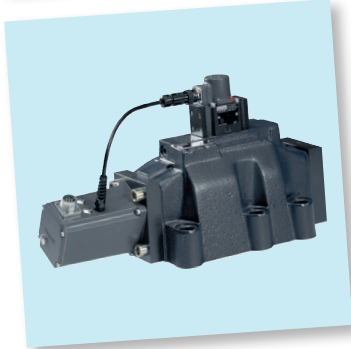
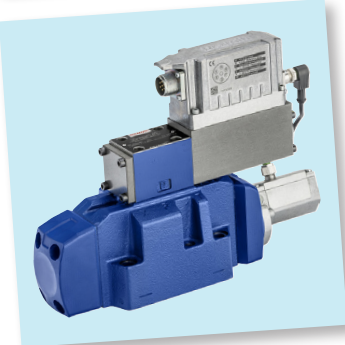
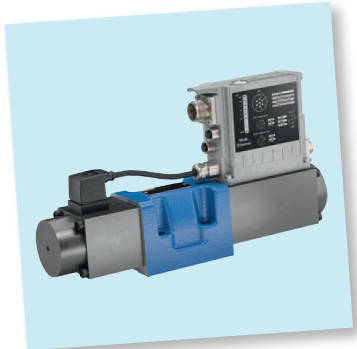
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Productoverview



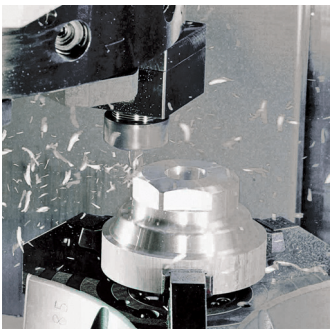
Directional servo valves											
Type	Typical case of application (hydraulic) ¹⁾				Features						
	Open control loop	Position control with low accuracy	Position control with high accuracy	Pressure control	Externalelectronics	Integrated electronics (OBE)	Electrical position feedback	IO-Link	Multi-Ethernet	Integrated safety function	Motion control
4WS2E, 4WSE2E	👎	👎	👍	👍	○	○	○	—	—	—	—
4WSE3E	👎	👎	👍	👍	—	●	●	—	—	—	—

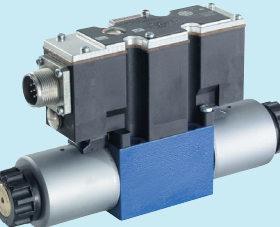
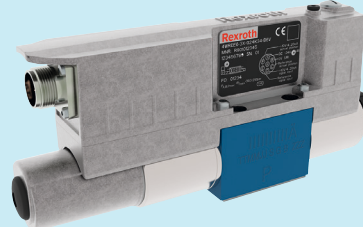
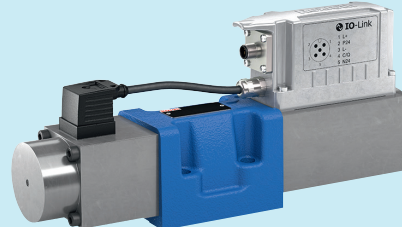
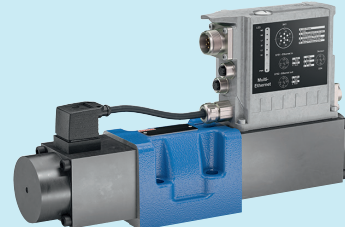
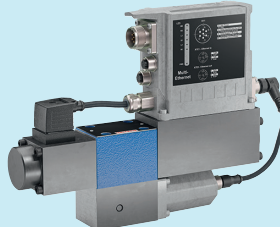
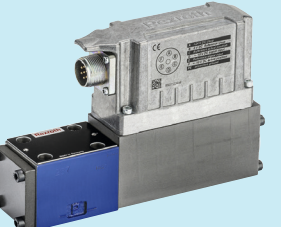
The data and properties specified in this brochure only serve to provide a general overview of the "proportional directional valves" product range of Bosch Rexroth AG.

The overview does not include all technical data and variants and does not replace a technical data sheet. Detailed information on the individual valves can be found in the corresponding data sheets.

No statements concerning a certain condition or suitability for a certain application can be derived from our information.

The information given does not release the user from the obligation of own judgment and verification.



			Proportional directional valves, direct-operated				Directional control valves, direct-operated															
Type	4WRA, 4WRAE				4WREE				4WRPE		4WRPF		4WRPQ		4WRPDH		4WRPEH		4WRPFH		4WRREH	
o = optional ● = integrated ¹⁾ According to ISO 10770-1																						
	6		10		6		10		10		6		10		6		10		6		6	
	2X				3X				3X		3X		2X		3X		3X		1X			
Data sheet	29055				29105				29122		29131		29133		29391		29121		29038		29395	
Nominal flow	$(\Delta p = 10 \text{ bar/valve})$ $(\Delta p = 70 \text{ bar/valve})$	l/min	26		32		70		80		32		80		–		–		–		–	
			–		–		–		–		–		40		100		40		100			
Maximum operating pressure	bar		315		350		315		350		350		350		350		350		350		315	
Frequency response 90°	±5%	Hz	–		65		50		45		90		60		150		125		110		70	
			–		50		40		38		65		60		125		70		110		70	
Step response	0 ... 100% (T_{resp}) ¹⁾		ms		70		200		25		33		19		20		25		8		18	
Analog interface / digital IO-Link	● / –				●				● / o		–		–		● / –		o		–		● / –	
Field bus Multi-Ethernet	–				–				–		●		●		●		–		●		–	
Electrical position feedback	–				●				●		●		●		●		●		●		●	
Pressure-force controller (external/internal sensor)	–				–				–		o		●		● (external sensor)		–		o		–	
Axis controller (IAC)	–				–				–		–		–		–		–		–		–	
Closed-loop flow (Q control)	–				–				–		–		●		–		–		–		–	
Integrated safety function STO (EN13849)	–				–				–		●		●		–		–		–		–	
Main spool position (without power supply)	Symbol E; W (overlapped)		Central position		Central position				Central position		Central position		Central position		Central position		Central position		Central position		Central position	
	Symbol V (zero overlap)		–		undefined				undefined		undefined		undefined		Fail-safe position		Fail-safe position		Fail-safe position		undefined	