

Intelligent hydraulics combined with multi-technology competence

As a leading provider in the field of industrial hydraulics, Rexroth takes a top position with its components, systems and extensive know-how and expertise regarding applications and engineering.

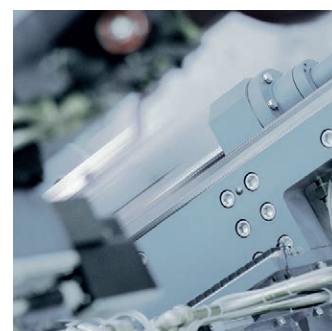
From its hydraulics range, which is the widest in the world, Rexroth offers standard products, application-related systems and customer-specific special solutions of high quality.

Using highly advanced microelectronics, Rexroth has rendered hydraulics even more capable. The products can be easily integrated in state-of-the-art machine designs and are extremely powerful and energy-efficient. As a supplier of all technologies, Rexroth always provides the perfect application-specific drive solution.

Rexroth is the ideal development partner for highly efficient machinery and production equipment – from the initial contact to commissioning and throughout the entire life cycle.

Worldwide operational teams assume all project planning tasks for your machines and systems until they are ready for start of production or turnkey delivery if desired.

Using the multi-technology competence and drive and control technology of Rexroth, you will become more competitive than ever.



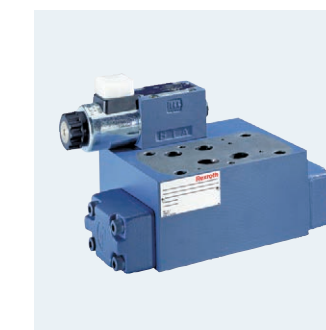
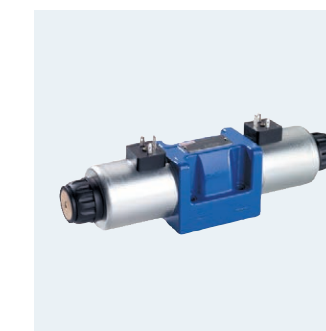
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Document no.: RE 08050
 Material no.: R999000318
 Version no.: 2017-11
 Replaces: 2013-09
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Directional on/off valves

Product overview

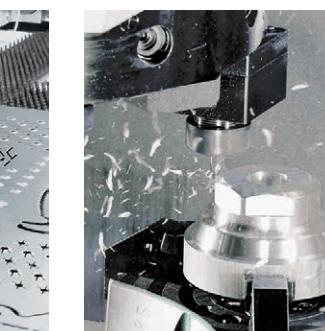


The data and properties specified in this brochure only serve to provide a general overview of the "directional on/off valve" product range of Bosch Rexroth AG.

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.



Directional spool valves, direct operated															Directional spool valves, pilot operated									
Type	Solenoid actuation					Fluidic, mechanical, manual actuation			Solenoid actuation					Fluidic, mechanical, manual actuation										
	Subplate mounting					Subplate mounting			Subplate mounting					Subplate mounting										
	WE	WE	WE	WE...E	5-WE	WMR, WMRZ, WMU, WMM, WMD(A)	WP, WH	WMM, WN, WP	4WEH, 4WH						W.H; WM.H									
Size	6	6	6	10	10	6	6	10	10	16	22	25	32	10	16	22	25	32						
Component series	7X	6X	6X	5X	5X	5X; 6X	5X; 6X	5X	4X	7X	7X	6X	6X	4X	7X	7X	6X	6X						
Data sheet no.	23164	23178, 23178-00 ¹⁾	23208	23340	23352	22280	22282	22334	24751, 24802 ²⁾					24851										
Features	<ul style="list-style-type: none"> ▶ 4/3, 4/2 or 3/2 directional valve ▶ Standard solenoid, rotatable by 90° ▶ Wet-pin DC solenoids ▶ Rotatable solenoid coil ▶ Electrical connection as individual connection 	<ul style="list-style-type: none"> ▶ 4/3, 4/2 or 3/2 directional valve ▶ High-power solenoid, rotatable by 90° ▶ Wet-pin DC or AC solenoids ▶ Electrical connection as individual or central connection ▶ Approval according to CSA ▶ Switching time increase, optional ▶ Reduced electric power consumption (8 W) ¹⁾ ▶ Improved corrosion protection ▶ Smooth switching behavior, optional 	<ul style="list-style-type: none"> ▶ 4/3, 4/2 or 3/2 directional valve ▶ Solenoid coil with UR approval UL 906 ▶ High-power solenoid ▶ Wet-pin DC or AC solenoids ▶ Electrical connection as individual connection 	<ul style="list-style-type: none"> ▶ 4/3, 4/2 or 3/2 directional valve ▶ 3-chamber version ▶ Wet-pin DC solenoids ▶ Electrical connection as individual or central connection ▶ Switching time increase, optional ▶ Solenoid coil with UR approval UL 429 ▶ Improved corrosion protection ▶ Smooth switching behavior, optional 	<ul style="list-style-type: none"> ▶ 4/3, 4/2 or 3/2 directional valve ▶ 5-chamber version ▶ High-pressure version, optional ▶ Wet-pin DC solenoids ▶ Electrical connection as individual connection ▶ Switching time increase, optional ▶ Spool position monitoring, optional ▶ Solenoid coil with UR approval UL 429 ▶ Improved corrosion protection 	<ul style="list-style-type: none"> ▶ 4/3, 4/2 or 3/2 directional valve ▶ Types of actuation: <ul style="list-style-type: none"> - Roller plunger (WMR(Z), WMU) - Hand lever (WMM) - Rotary knob (WMD(A)) ▶ Improved corrosion protection 	<ul style="list-style-type: none"> ▶ 4/3, 4/2 and 3/2 directional valve ▶ Types of actuation: <ul style="list-style-type: none"> - Pneumatic (WP) - Hydraulic (WH) ▶ Axial or radial type of actuation available ▶ Improved corrosion protection 	<ul style="list-style-type: none"> ▶ 4/3, 4/2 or 3/2 directional valve ▶ Types of actuation: <ul style="list-style-type: none"> - Manual (WMM) - Fluidic (WN, WP) ▶ Improved corrosion protection 	<ul style="list-style-type: none"> ▶ 4/3, 4/2 or 3/2 directional valve ▶ Types of actuation: <ul style="list-style-type: none"> - Electro-hydraulic (type WEH) - Hydraulic (type WH) ▶ Electrical connection as individual or central connection ▶ Switching time adjustment, optional ▶ Spool position monitoring, optional ▶ Spring or pressure centering ▶ Preload valve in channel P of the main valve, optional ▶ Solenoid coil with UR approval UL 906 ²⁾ ▶ Approval according to CSA ▶ Improved corrosion protection 	<ul style="list-style-type: none"> ▶ 4/3, 4/2 or 3/2 directional valve ▶ Types of actuation: <ul style="list-style-type: none"> - Pneumatic-hydraulic (WPH) - Hydraulic-hydraulic (WHH) - Hand lever (WMMH) - Rotary knob (WMDH, WMDAH) - Roller plunger (WMRH, WМУH) 														
Maximum flow in l/min	60	80	80	150	120/150	60	60	160	160	300	450	650	1080	160	300	450	650	1080						
Maximum operating pressure in bar	315	350	350	350	350/420	315	315	350	350/280					350/280										

Directional seat valves, direct operated														
Type	Solenoid actuation					Fluidic, mechanical, manual actuation								
	Subplate mounting					Subplate mounting								
	..SE	SED	SEW	SEC	SED	SEW	SH, SP, SMM, SMR							
Size	6	6	6	6	10	10	6	10						
Component series	7X	1X	3X	1X	1X	1X	3X	10						
Data sheet no.	22042	22049	22058	22035	22045	22075	22340							
Features	<ul style="list-style-type: none"> ▶ 3/2 or 4/2 directional seat valve ▶ For water emulsion and water ▶ Blocked connection tight ▶ Air-gap DC solenoids ▶ Electrical connection as individual connection ▶ Safe switching also with longer standstill periods under pressure 	<ul style="list-style-type: none"> ▶ 2/2, 3/2 or 4/2 directional seat valve ▶ Wet-pin DC solenoids ▶ Electrical connection as individual connection ▶ Spool position monitoring, optional ▶ Safe switching also with longer standstill periods under pressure ▶ Improved corrosion protection 	<ul style="list-style-type: none"> ▶ 2/2, 3/2 or 4/2 directional seat valve ▶ Air-gap DC solenoids ▶ Electrical connection as individual connection ▶ Actuation of the control spool by angled lever ▶ Spool position monitoring, optional ▶ Safe switching also with longer standstill periods under pressure ▶ Improved corrosion protection 	<ul style="list-style-type: none"> ▶ 3/3, 4/2 or 4/3 directional seat valve ▶ Blocked connection tight ▶ Air-gap DC solenoids ▶ Electrical connection as individual connection ▶ Safe switching also with longer standstill periods under pressure 	<ul style="list-style-type: none"> ▶ 3/2 or 4/2 directional seat valve ▶ Wet-pin DC solenoids ▶ Electrical connection as individual connection ▶ Spool position monitoring, optional ▶ Safe switching also with longer standstill periods under pressure ▶ Approval according to CSA 	<ul style="list-style-type: none"> ▶ 3/2 or 4/2 directional seat valve ▶ Air-gap DC solenoids ▶ Electrical connection as individual connection ▶ Actuation of the control spool by angled lever ▶ Approval according to CSA ▶ Improved corrosion protection 	<ul style="list-style-type: none"> ▶ 2/2, 3/2 or 4/2 directional seat valve ▶ Types of actuation: <ul style="list-style-type: none"> - Hydraulic (SH) - Pneumatic (SP) - Hand lever (SMM) - Roller plunger (SMR) ▶ Spool position monitoring, optional ▶ Improved corrosion protection 							
Maximum flow in l/min	25	25	25	25	40	40	25	40						
Maximum operating pressure in bar	630	350	420/630	420	350	420/630	420/630							