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Part Number RS 210, RS 210 Sectional Directional Control Valves

RS 210 is a sectional open center valve, designed for max. operating pressures up to 4,350 psi (300 bar) and max. pump flows up to 20 gpm (75 Lpm).

RS 210 is available with 1 to 10 working sections per valve assembly.

The valve can be used in different systems for parallel as well as tandem circuits. It is designed with an open center for fixed and variable displacement pumps.

The valve can be operated manually, with cable or by pneumatic and electropneumatic or electrohydraulic remote control.

RS 2

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Specifications

Brands	HYDAC
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Pressures/Flows

Maximum Operating Pressure per Port (P1, P2, P3, P4, A, B)	4,350 psi	300 bar
Maximum Operating Pressure per Port (T1, T2, T3, T4)	300 psi	20 bar
Note for Maximum Operating Pressure per Port	Inlets type A and intermediate sections M uses "A" and "B" designation for P and T connections. Consider the detailed information for the respective part in this data sheet.	
Typical Nominal Inlet Flow Rate (P1, P2 Inlets Type A, B, C, E)	20 gpm	75 L/min
Typical Nominal Inlet Flow Rate (P1, P4)	20 gpm	

Inlets Type Q)	75 L/min	
Fluid Temperature	5 to 176 °F	-15 to 80 °C

Technical Data

Nominal Spool Stroke (±)	0.25 in	6 mm
4th Position Spool Stroke (+)	0.45 in	12 mm
Spool Control Force at Neutral Position (9M1)	24.7 lb 110 N	
Spool Control Force at Maximum Spool Stroke (9M1)	31.5 lb	140 N
Detent In	>67.4 lb >300 N	
Detent Out	<22.5 lb	<100 N
Permissible Contamination Level	Equal or Better than 20/18/14 as per ISO 4406	
Viscosity¹	0.4 to 15.7 in ² /s	10 to 400 mm ² /s
Leakage²	≤ 13 cm ³ /min	
Pressure Fluid	Mineral Oil and Synthetic Oil Based on Mineral Oil HL, HLP according to DIN 51524	

Q-Function

Q-Function	<p>The flow control (Q-function) of the inlet section by-passes the major part of the pump flow to tank when the system is idling, still giving access to full pump flow when the services are operated. Besides greatly reducing heat generation this also provides improved controllability characteristics.</p>
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Properties and Possibilities

Properties and Possibilities	<ul style="list-style-type: none"> • Several different in- and outlet alternatives offering possibility for electrical unloading, connecting and dimensional flexibility • Very wide program of different spools optimized for various pump flows, applications, system alternatives, etc. • Spool controls for external kick-out and spool position sensing • Load checks in each working section • High pressure carry-over
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- Left hand and right hand side inlet

Applications

Applications

The RS 210 is ideal for applications where you need excellent control characteristics such as cranes, excavators, backhoe loaders, refuse trucks and trailers.

Note

Higher values are possible, depending on application.

¹ Higher viscosity allowed at start up

² A, B → T at 1,500 psi, 32 cSt and 104 °F (100 bar, 32 cSt and 40 °C)