



Size: 10, ISO 4401

Up to 350 bar - Up to 120 lpm

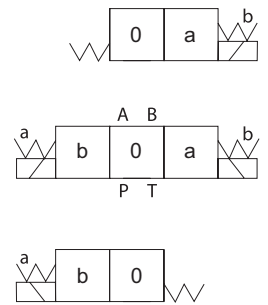
Description

These solenoid operated directional spool valves are designed to control the start, stop and direction of oil flow for both single and double acting hydraulic circuits. The robust construction for high pressure operation, together with optimised large flow paths for low pressure drop, make these valves ideal for providing the accurate and energy efficient control required by modern hydraulically controlled machines.

Features

- DC & AC coil options
- Wide range of spool options
- Low internal leakage
- Low pressure drop design
- Detent and non-detent override option

Symbol



Ordering Code

RS5 — **** / * **** — * * * HY

Spool Type
As chart overleaf

Seals
N - Nitrile
V - Viton

Coil Connector Type
00 - No Coil(s)
HC - Din 43650 (Std)
DL - Double Leadwire **
DT - Deutsch (DT04-2P) **
** Available on request.

Voltage Options
*= internally rectified DC coil
00 - No Coil(s)
12 - 12v DC
24 - 24v DC
11 - 110v AC*
22 - 220v AC*

Plug Options for Din Type Coils
0 - No Coil Plugs
D - Std Din Plugs supplied
L - LED Din Plug with protective rectifier

Manual Override
M - Std Flush Push Pin Spring return

Other Options
H - High Pressure Coil Tube for tank pressures up to 210 bar
X - Special Option
Omit if not required

Spool Type Chart

1711		1611		1611/A		1631	
1710		1610		1610/A		1630	
1713		1613		1613/A		1632	
1715		1615		1615/A		1631/A	
1714		1614		1614/A		1630/A	
3C7		2B7B		2B7BL		1632/A	
1718		1618		1618/A			
1717		1617		1617/A			
1716		1616		1616/A			
3C12		2B12B		2B12BL			
1758		1658		1658/A			
1719		1619		1619/A			

Mechanical position *

1751	
1750	
1752	

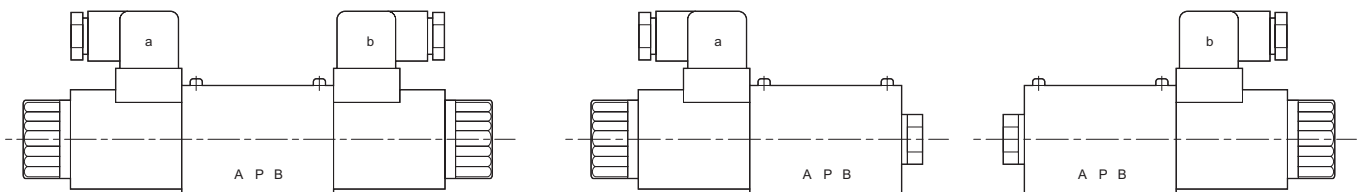
No return spring and no mechanical positioning *

1771	
1770	
1772	

* Must be horizontally mounted

= Non Standard.

Coil Identification



When Solenoid 'A' is energised flow = P → A, B → T

When Solenoid 'B' is energised flow = P → B, A → T

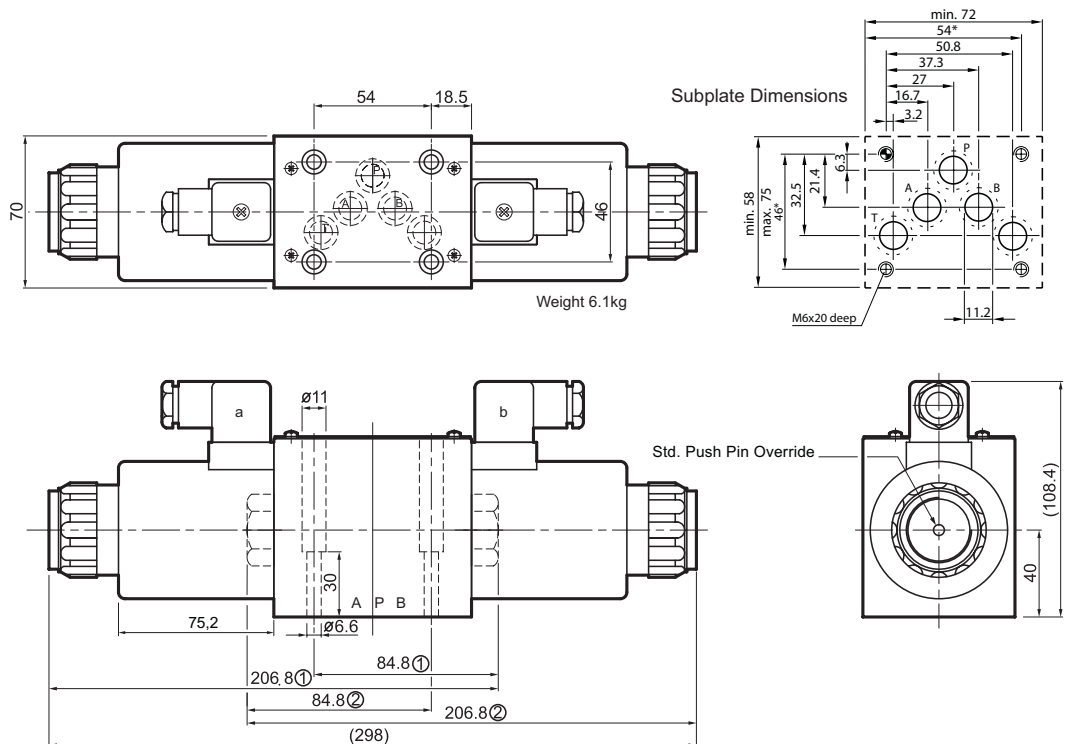
Specifications

Working Pressure (Bar)	P, A & B Ports	315	
	T Port	100 (210 if 'H' option coil tube selected)	
Max. Working Flow (lpm)	up to 120 (see Flow Pressure Performance graph)		
Working Fluids	General purpose hydraulic fluid		
Fluid Temp.(C°)	-20 to 70		
Viscosity Range, Centistokes (Cst)	2.8 to 380		
Weights (Kg)	Single Solenoid	5.1 (DC)	4.3 (AC)
	Double Solenoid	6.7 (DC)	5.1 (AC)
Working Voltage	Direct Current	12	24
	Alternating Current	110/50Hz 220/50Hz	
Coil Power (Watts)	36 (12 Volts = 3 Amps, 24 Volts = 1.5 Amps)		
Response Time (DC Voltage)	Open	15-25	
	Closed	40-60	
Switching Frequency - Cycles / Hour	72000 (DC)		
Insulation Grade	IP65		

* = Consult RFP Ltd.

Dimensions

[mm]



To Override

Screw Type Override

☞ to override.

☞ unscrew fully for neutral de-energised position.

Waterproof Push Button Override

Push to override. Spring return.

Installation Advice

Mounting Orientation: Any, horizontal preferred.

Bolt: Grade 12.9. Allow a minimum thread engagement of 1.5x D.

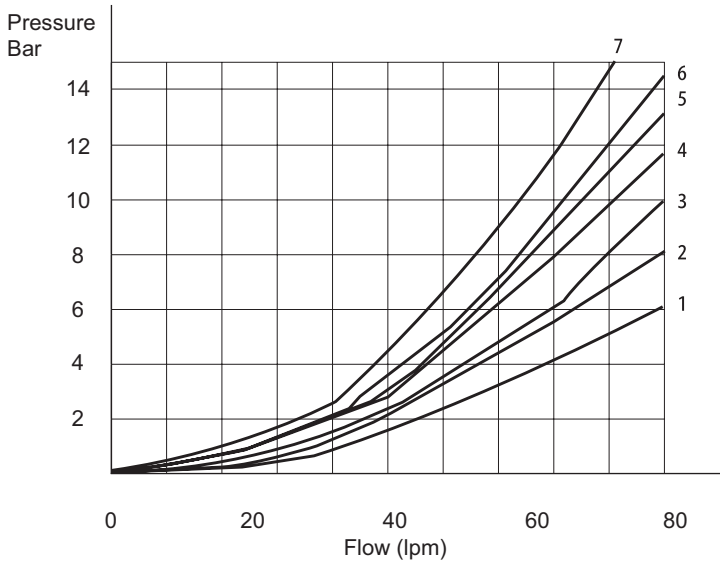
Tightening Torque: 8-9Nm in aluminium threads.

Mounting Surface: 4401 - 05 - 05 - 0 - 05 Ra 0.8 roughness.

Spare Seal Kit: SK-RS5-00 (Nitrile)

SK-RS5-0V (Viton)

Pressure Drop Curves

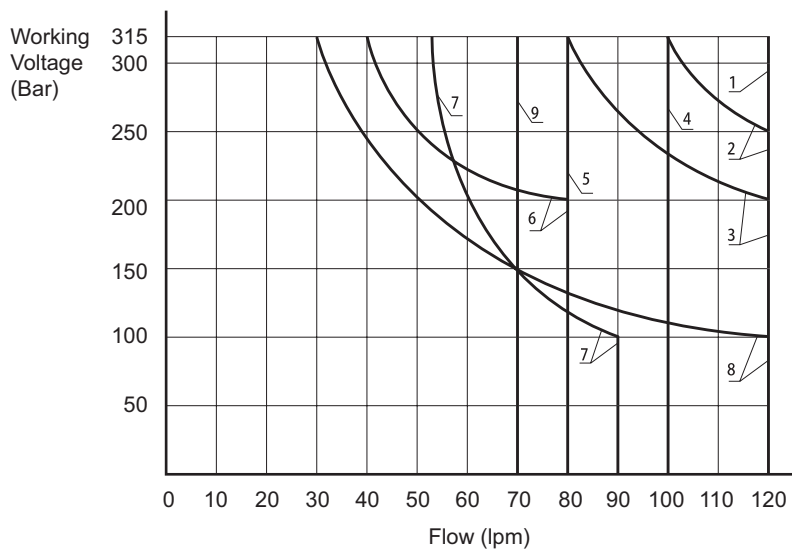


Spool Code	Direction			
	P → A	P → B	A → T	B → T
1632, 1632/A	2	2	-	-
1630, 1631, 1631/A	2	2	3	3
1711, 3C7	2	2	4	4
1715	2	3	3	5
1714	3	3	4	6
1713	1	1	2	1
1710	1	1	4	5
1717/3C12	2	2	3	5
1718	1	1	5	1
1758	3	2	5	3
1719	2	4	3	-

Tested with solenoid at working temperature with -10% rated voltage. Mineral Oil: 41Cst @ 50°C

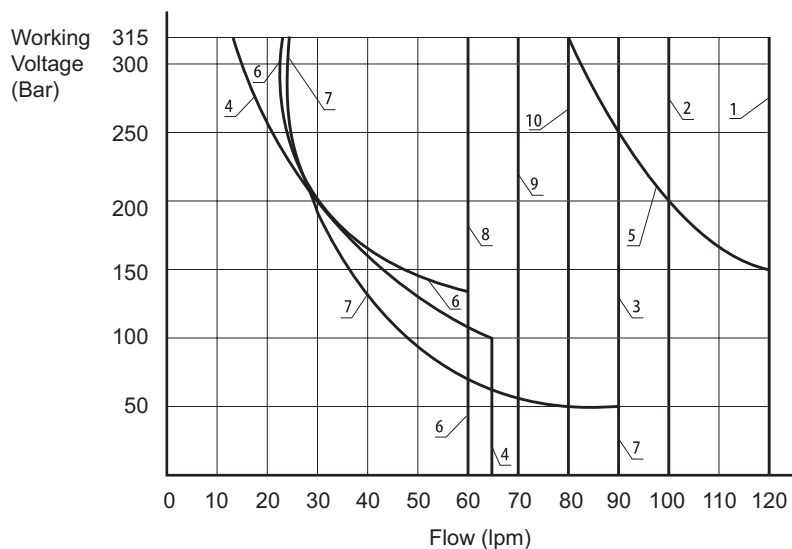
Flow Pressure Performance

DC Solenoid Operation



DC Solenoid Operation D12, D24, B110, B220	
Curve	Symbol
1	1630, 1770, 1750, 1631, 1771, 1751, 1631/A, 1718
2	1711
3	1772, 1752, 1717, 3C12, 1713
4	1710
5	1719
6	1714
7	1715, 1758
8	1632, 1632/A
9	3C7
10	1711, 1719, 1770, 1750, 1771, 1751

AC Solenoid Operation



AC Solenoid Operation A110, A220, 50Hz A120, A240, 60Hz	
Curve	Symbol
1	1630, 1770, 1750, 1631, 1771, 1751, 1631/A
2	1711, 1717, 3C12
3	1718
4	1632, 1632/A
5	1772, 1752, 1713
6	1714
7	1715, 1758
8	3C7
9	1710
10	1719