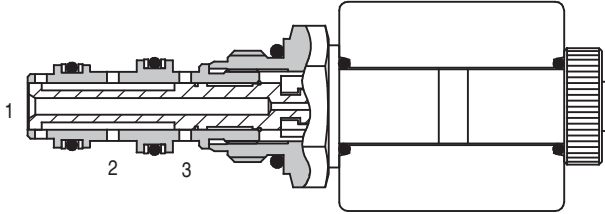




# S221(H) Directional Control Valve - 3-Way, 2-Position Spool

Up to 20 litres/min (5 US GPM) • Up to 210 bar (3000 PSI)

## S221(H)



## FEATURES

- High flow capacity with reduced space requirements.
- No dynamic seals.
- Standard valve bodies and common cavities.
- One-piece encapsulated coil with minimal amperage draw.
- Oil immersed armature solenoid.
- Various coil terminals and voltages.
- Coil interchangeability with all Series S2 valves.
- Manual override, seal variations and other options available.
- Sealed coil arrangement to protect stem from corrosion.

## APPLICATION

NORMALLY CLOSED (Pressure at Port 3)	NORMALLY OPEN (Pressure at Port 1)	SELECTOR (Pressure at Port 2)

## SPECIFICATIONS

<b>Basic Model Code</b>	S221(std) / S221H (heavy duty)
<b>Symbol</b>	
<b>Actuator Port Location</b>	Port 2
<b>Max. Working Pressure</b>	210 bar (3000 psi)
<b>Flow Rating</b>	See performance graphs
<b>Nominal Flow (at Delta P = 5 bar (70 psi))</b>	11 litres/min (3 US GPM)
<b>Internal Leakage</b>	Less than 60 ml/min past each land 210 bar differential at 32 centistokes
<b>Temperature Range</b>	-20 to +120°C (-4 to +248°F)
<b>Nominal Viscosity Range</b>	15 to 250 centistokes
<b>Recommended Filtration</b>	BS5540/4 18/13 (25 micron or better)
<b>Fluid</b>	Compatible with most general purpose hydraulic fluids
<b>Seal Material</b>	Standard nitrile with PTFE back up rings
<b>Seal Kit Number</b>	SK973 (Nitrile) SK973V (Viton)
<b>Mounting Position</b>	Unrestricted
<b>Cartridge Weight</b>	0.13 kg (0.3 lbs)
<b>Coil Weight</b>	0.2 kg (0.4 lbs)
<b>Cavity Number</b>	A3531 (See section 17)
<b>Torque into Cavity</b>	20 Nm (15 lbs ft)
<b>Electrical Data</b>	See coil data sheet
<b>Line Body Material</b>	Aluminium Alloy

## COIL INFORMATION

(See Page 11-1021)

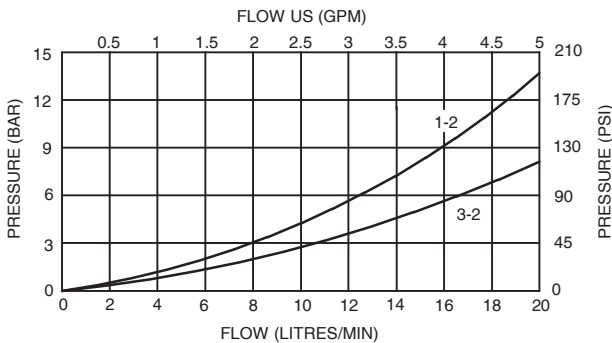
Part Number: C13-\*/14 (S221)  
C13-\*/27 (S221H)

Voltage available: 12, 24 VDC  
110, 220 VAC\*

\* AC coils must be used with a rectifying connector.

## PRESSURE DROP v's FLOW

Viscosity = 32 cSt (150 SSU)



## Integrated Hydraulics Ltd

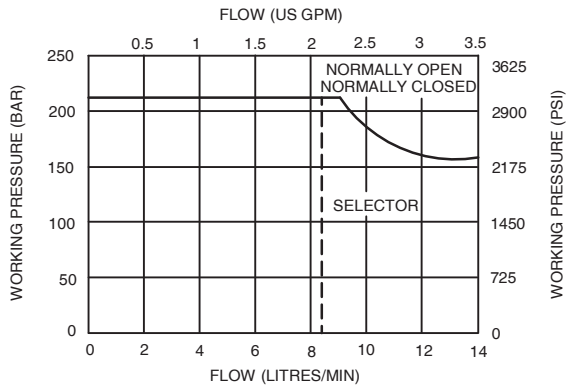
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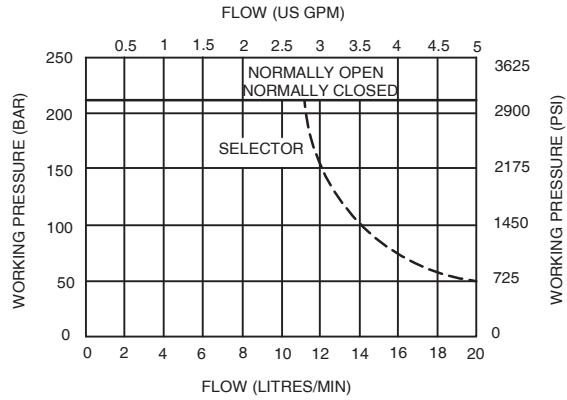
## PERFORMANCE

### S221 (Standard valve)



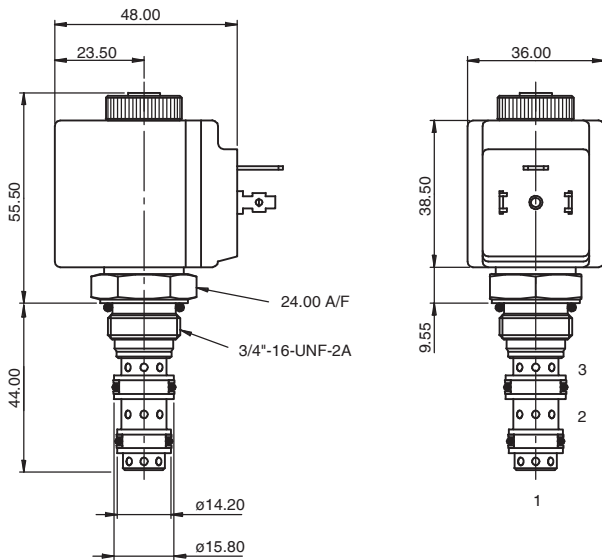
## PERFORMANCE

### S221H (Heavy duty valve)



## CARTRIDGE ONLY

BASIC CODE: S221 / S221H



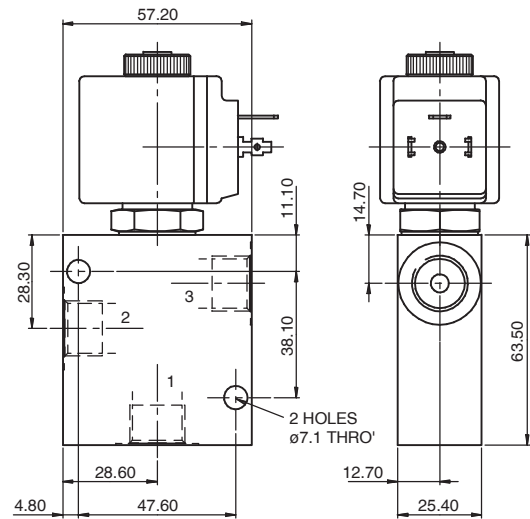
## COMPLETE VALVE

1/4" 3/8" PORTS

BASIC CODE: S221 / S221H

Body ONLY part numbers

BSP, aluminium SAE, aluminium  
1/4" B7724 3/8" B6516  
3/8" B6684



Where measurements are critical request certified drawings

## ORDERING CODE EXAMPLE

**S221\*** **N** **H** **24** **3W**

Basic Code

**S221** = (standard valve)  
**S221H** = (heavy duty valve)

Seals

**N** = Nitrile  
**V** = Viton

Manual Override (consult factory for availability)

**1** = Push and twist  
**2** = Screw

Port Sizes

**2W** = 1/4" BSP  
**3W** = 3/8" BSP  
**6T** = 3/8" SAE

Voltage

**12** = 12 VDC  
**24** = 24 VDC  
**110** = 110 VAC  
**220** = 220 VAC

Coil Termination

**H** = DIN43650  
**F** = Flying Leads  
**DM** = Deutsch Moulded  
Other terminations available on request

We reserve the right to change specifications without notice