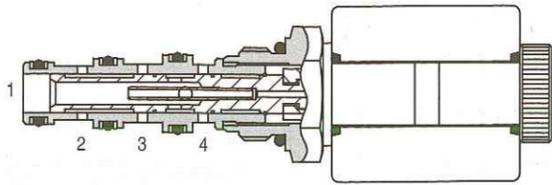




S240 Directional Control Valve - 4-Way, 2-Position Spool

Up to 18 litres/min (4.7 US GPM) • Up to 210 bar (3000 PSI)

S240



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.
- Reversible coil without affecting performance.

COIL INFORMATION

(See Page 11-1021)

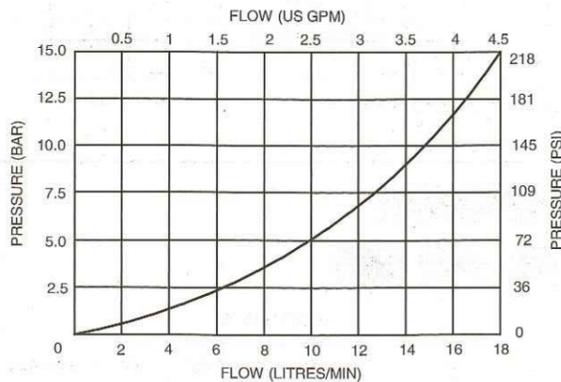
Part Number: C13-*/*/14

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)



SPECIFICATIONS

Basic Model Code	S240
Symbol	
Max. Working Pressure	210 bar (3000 psi)
Flow Rating	18 litres/min (4.7 US GPM)
Nominal flow (at Delta P = 5 bar (70 psi))	10 litres/min (2.5 US GPM)
Internal Leakage	Less than 60 ml/min past each land 210 bar differential at 32 centistokes
Temperature Range	-20 to +120°C (-4 to +248°F)
Nominal Viscosity Range	15 to 250 centistokes
Recommended Filtration	BS5540/4 18/13 (25 micron or better)
Fluid	Compatible with most general purpose hydraulic fluids
Seal Material	Viton with PTFE back up rings
Seal Kit Number	SK974 (Nitrile) SK974V (Viton)
Mounting Position	Unrestricted
Cartridge Weight	0.13 kg (0.3 lbs)
Coil Weight	0.2 kg (0.4 lbs)
Cavity Number	A6951 (See Section 17)
Torque into Cavity	20 Nm (15 lbs ft)
Electrical Data	See coil data sheet
Line Body Material	Aluminium Alloy

Integrated Hydraulics Ltd

Collins Road, Heathcote Ind. Est., Warwick, CV34 6TF, UK.
Tel: +44 (0) 1926 881171 Fax: +44 (0) 1926 315729
Website: www.integratedhydraulics.com

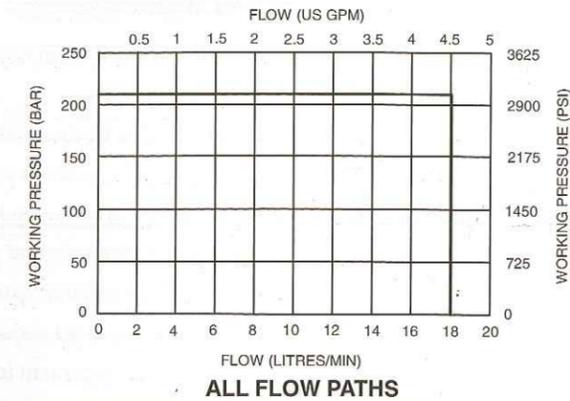
Integrated Hydraulics Inc

7047 Spinach Drive, Mentor, Ohio 44060, USA
Tel: (440) 974 3171 Fax: (440) 974 3170
Website: www.integratedhydraulics.com

11-2811.A

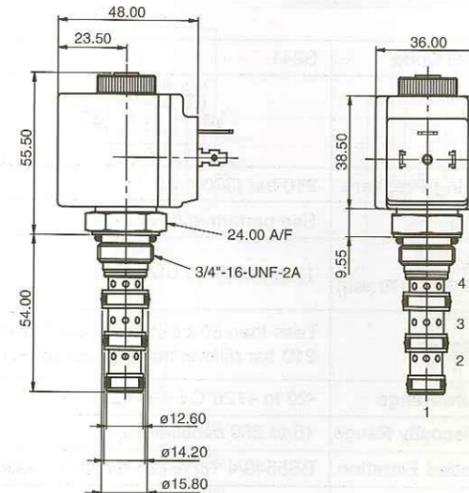


PERFORMANCE



CARTRIDGE ONLY

BASIC CODE: S240



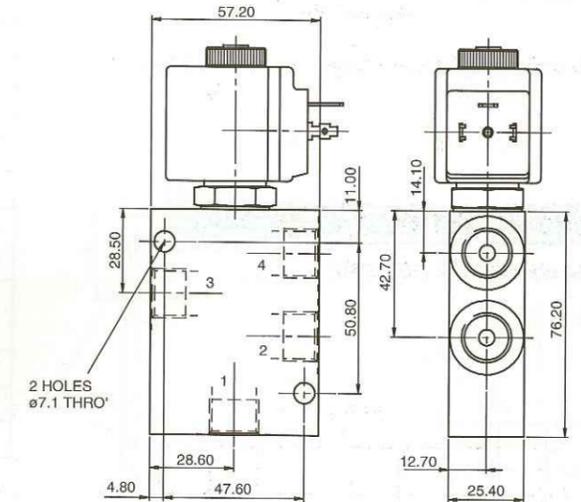
COMPLETE VALVE

1/4" 3/8" PORTS

BASIC CODE: S240

Body ONLY part numbers

BSP, aluminium	SAE, aluminium
1/4" B13383	3/8" B19362
3/8" B7498	



Where measurements are critical request certified drawings

ORDERING CODE EXAMPLE

S240 N H 24 3W

Basic Code
S240

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 110 = 110 VAC
24 = 24 VDC 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

11-2812.B

FAIRWAY HYDRAULICS

Hydraulic Systems & Components

Unit 96a
Blackpole Trading Estate
Worcester
Worcestershire
WR3 8TJ
Tel 01905 457519
Fax 01905 456054

email: enquiries@fairwayhydraulics.com
Web: www.fairway-hydraulics.co.uk
VAT No: 276510456
Co.Reg.No 4613317

Invoice No	117788
Order No	Verbal Paul
Date	24/10/2011
Orig'l No	DEF117787

Contact	Michael Chang
Delivery Date	25/10/2011
Delivery Method	FEDEX

Invoice To:

Invoice

Ship To:

L.P.Hydraulics Ltd
South Staffs Business Park
Hawkins Drive
CANNOCK
WS11 0XT

L.P.Hydraulics Ltd
South Staffs Business Park
Hawkins Drive
CANNOCK Staffordshire WS11 0XT

Stock Code	Description	Shipped	BO	Unit £	Disc	Total (Ex)
944-0024	SOLENOID COIL C06Z02400E1-31W09	1		£17.64	25 %	£13.23
CARRIAGE	CARRIAGE	1		£12.50		£12.50

PLEASE NOTE: WE NOW ACCEPT PAYMENT BY DEBIT/CREDIT CARDS

Comments:	Sub Total	£25.73
	Total VAT	£5.15
	TOTAL (inc. VAT)	£30.88

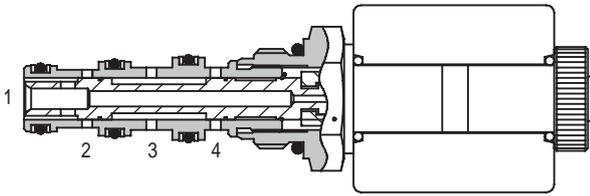
Please Forward payments to:		Due Date	L.P.Hydraulics Ltd
Fairway Hydraulics Limited		26/10/2011	
Unit 96a		Balance	£30.88
Blackpole Trading Estate		Invoice	117788
Worcester			
Worcestershire			
WR3 8TJ		Amount of Payment: £.....	



S241 Directional Control Valve - 4-Way, 2-Position Spool

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

S241



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.
- Reversible coil without affecting performance.

COIL INFORMATION

(See Page 11-1021)

Part Number: C13-*/14

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

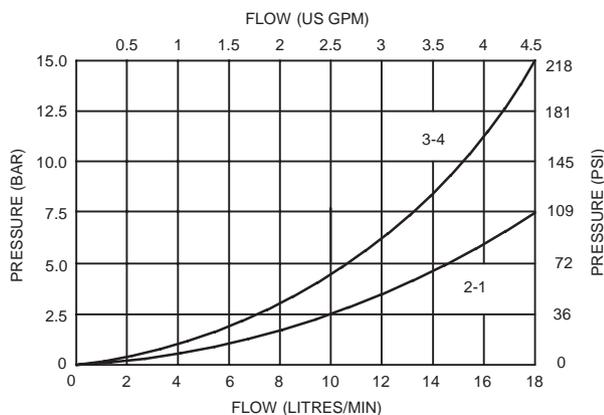
* AC coils must be used with a rectifying connector.

SPECIFICATIONS

Basic Model Code	S241
Symbol	
Max. Working Pressure	210 bar (3000 psi)
Flow Rating	See performance graphs
Nominal flow (at Delta P = 5 bar (70 psi))	11 litres/min (3 US GPM)
Internal Leakage	Less than 60 ml/min past each land 210 bar differential at 32 centistokes
Temperature Range	-20 to +120°C (-4 to +248°F)
Nominal Viscosity Range	15 to 250 centistokes
Recommended Filtration	BS5540/4 18/13 (25 micron or better)
Fluid	Compatible with most general purpose hydraulic fluids
Seal Material	Viton with PTFE back up rings
Seal Kit Number	SK974 (Nitrile) SK974V (Viton)
Mounting Position	Unrestricted
Cartridge Weight	0.13 kg (0.3 lbs)
Coil Weight	0.2 kg (0.4 lbs)
Cavity Number	A6951 (See Section 17)
Torque into Cavity	20 Nm (15 lbs ft)
Electrical Data	See coil data sheet
Line Body Material	Aluminium Alloy

PRESSURE DROP v's FLOW

Viscosity = 32 cSt (150 SSU)



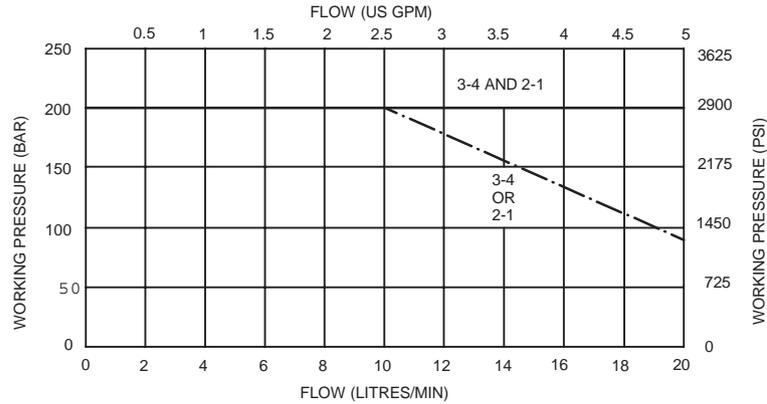
Integrated Hydraulics Ltd

Collins Road, Heathcote Ind. Est., Warwick, CV34 6TF, UK.
Tel: +44 (0) 1926 881171 Fax: +44 (0) 1926 315729
Website: www.integratedhydraulics.com

Integrated Hydraulics Inc

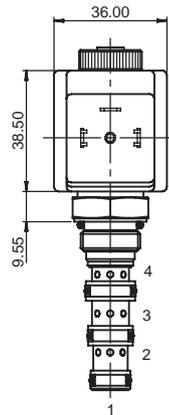
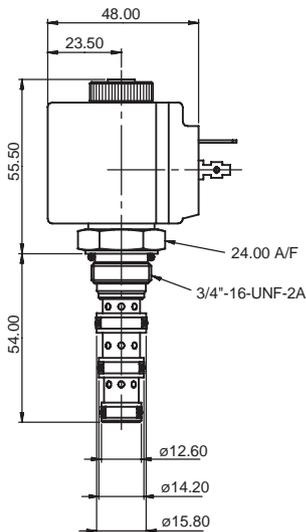
7047 Spinach Drive, Mentor, Ohio 44060, USA
Tel: (440) 974 3171 Fax: (440) 974 3170
Website: www.integratedhydraulics.com

PERFORMANCE



CARTRIDGE ONLY

BASIC CODE: S241



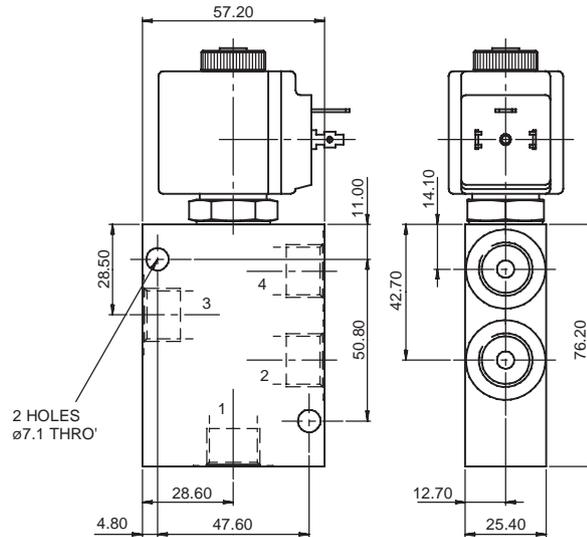
COMPLETE VALVE

1/4" 3/8" PORTS

BASIC CODE: S241

Body ONLY part numbers

BSP, aluminium SAE, aluminium
1/4" B13383 3/8" B19362
3/8" B7498



Where measurements are critical request certified drawings

ORDERING CODE EXAMPLE

S241 N H 24 3W

Basic Code
S241

Seals
N = Nitrile
V = Viton

Manual Override (consult factory for availability)
1 = Push and twist
2 = Screw

Port Sizes

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

Voltage

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

Coil Termination

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

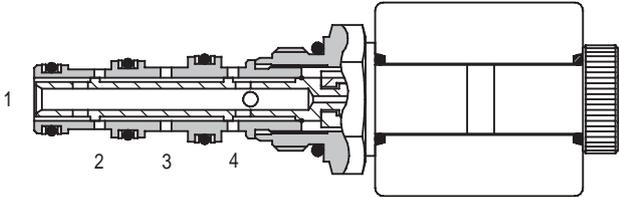
We reserve the right to change specifications without notice



S242(H) Directional Control Valve - 4-Way, 2-Position Spool

Up to 15 litres/min (4 US GPM) • Up to 210 bar (3000 PSI)

S242(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.
- Reversible coil without affecting performance.

COIL INFORMATION

(See Page 11-1021)

Part Number: C13-*-/14 (S242)
C13-*-/27 (S242H)

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

* AC coils must be used with a rectifying connector.

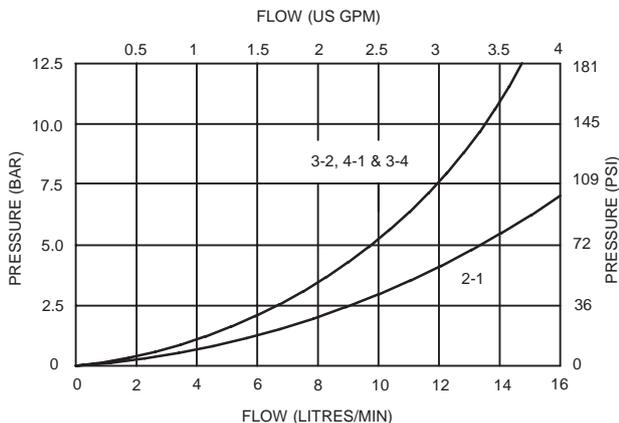
SPECIFICATIONS

Basic Model Code	S242 (std) / S242H (heavy duty)
Symbol	
Max. Working Pressure	210 bar (3000 psi)
Flow Rating	See performance graphs
Nominal Flow (at Delta P = 5 bar (70 psi))	11 litres/min (3 US GPM)
Internal Leakage	Less than 60 ml/min past each land 210 bar differential at 32 centistokes
Temperature Range	-20 to +120°C (-4 to +248°F)
Nominal Viscosity Range	15 to 250 centistokes
Recommended Filtration	BS5540/4 18/13 (25 micron or better)
Fluid	Compatible with most general purpose hydraulic fluids
Seal Material	Standard nitrile with PTFE back up rings
Seal Kit Number	SK974 (Nitrile) SK974V (Viton)
Mounting Position	Unrestricted
Cartridge Weight	0.13 kg (0.3 lbs)
Coil Weight	0.2 kg (0.4 lbs)
Cavity Number	A6951 (See Section 17)
Torque into Cavity	20 Nm (15 lbs ft)
Electrical Data	See coil data sheet
Line Body Material	Aluminium Alloy

11

PRESSURE DROP v's FLOW

Viscosity = 32 cSt (150 SSU)



Integrated Hydraulics Ltd

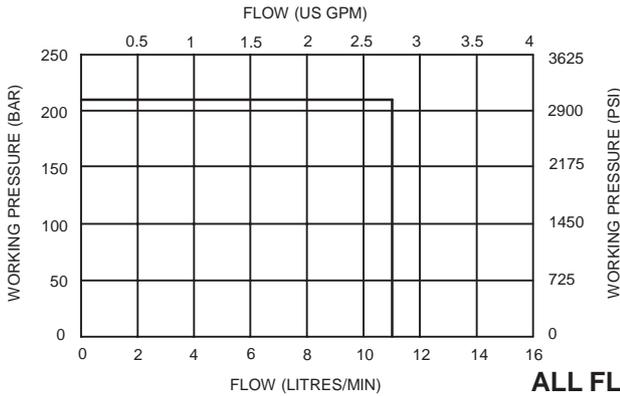
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Website: www.integratedhydraulics.com

Integrated Hydraulics Inc

7047 Spinach Drive, Mentor, Ohio 44060, USA
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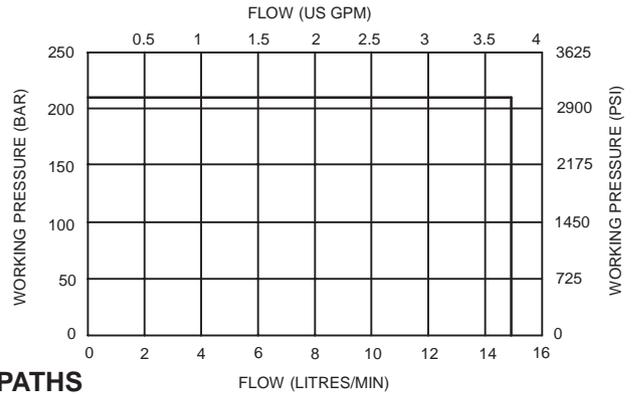
PERFORMANCE

S242 (Standard valve)



PERFORMANCE

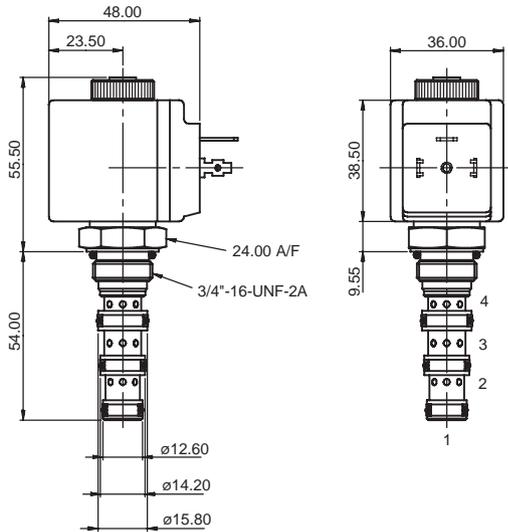
S242H (Heavy duty valve)



ALL FLOW PATHS

CARTRIDGE ONLY

BASIC CODE: S242 / S242H



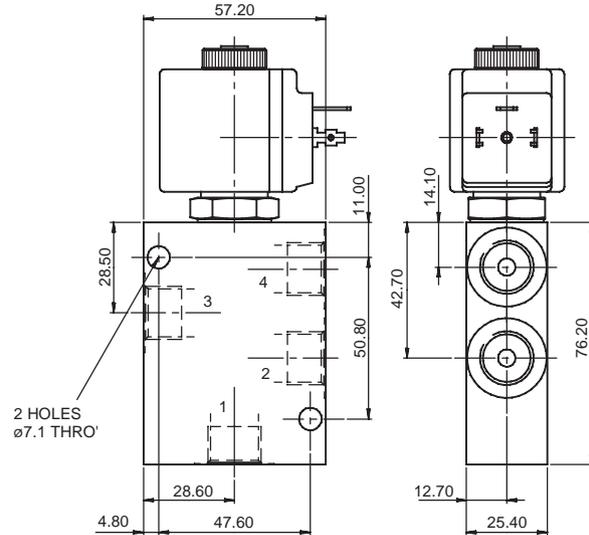
COMPLETE VALVE

BASIC CODE: S242 / S242H 1/4" 3/8" PORTS

Body ONLY part numbers

BSP, aluminium 1/4" B13383
3/8" B7498

SAE, aluminium 3/8" B19362



Where measurements are critical request certified drawings

ORDERING CODE EXAMPLE

S242* **N** **H** **24** **3W**

Basic Code

S242 = (standard valve)
S242H = (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

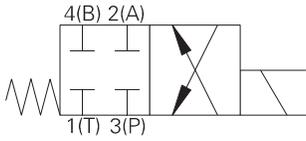
H = DIN43650
F = Flying Leads
DM = Deutsch Moulded
Other terminations available on request

We reserve the right to change specifications without notice

S541 - Solenoid valve

4-way, 2-position spool type solenoid valve
Up to 30 L/min (8 USgpm) • 2.10 bar (3000 psi)

A



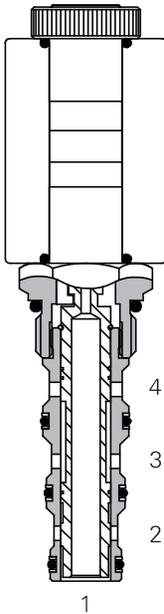
Operation

In the de-energized position all ports are blocked. In the energized position flow is allowed from port 3 to port 4 and from port 2 to port 1.

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 valves of same series.
- Manual override, seal variations and other options available.
- Sealed coil arrangement to protect stem from corrosion.
- Reversible coil without affecting performance.

Sectional view



Performance data

Ratings and specifications

Performance data is typical with Viscosity 32 cST (150 SSU)

Max working pressure	210 bar (3000 psi)
Rated flow	See performance graphs
Nominal flow at $\Delta P = 5$ bar (70 psi)	20 L/min (5 USgpm)
Internal leakage	Less than 120 ml/min 210 bar differential
Temperature range	-30° to +120°C (-22° to +248°F)
Cavity	C-10-4 (See Section M)
Electrical data	See coil data sheet
Torque cartridge into cavity	30 Nm (22 lbs ft)
Mounting position	Unrestricted
Fluids	All general purpose hydraulics fluids such as MIL-H-5606, SAE 10, SAE 20 etc
Seal material	Nitrile with PTFE back up rings
Filtration	BS5540/4 Class 18/13 (25 micron or better)
Nominal viscosity range	15 to 250 cSt
Standard housing materials	Aluminium alloy
Coil weight	0.3 kg (0.6 lbs)
Cartridge weight	0.13 kg (0.3 lbs)
Seal kit	SK1031 (Nitrile) SK1031V (Viton)
Coil part number	C16-*-/19
Coil voltage available	12, 24 VDC, 110, 220, VAC*

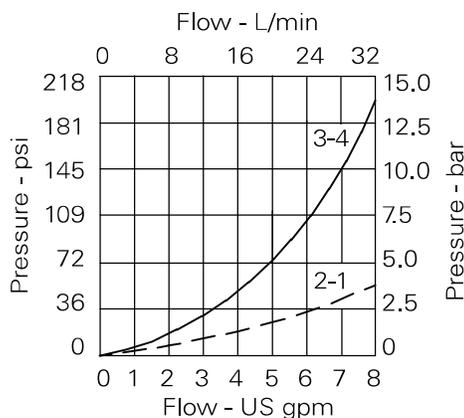
Viton is a registered trademark of E.I. DuPont

*AC coils must be used with a rectifying connector

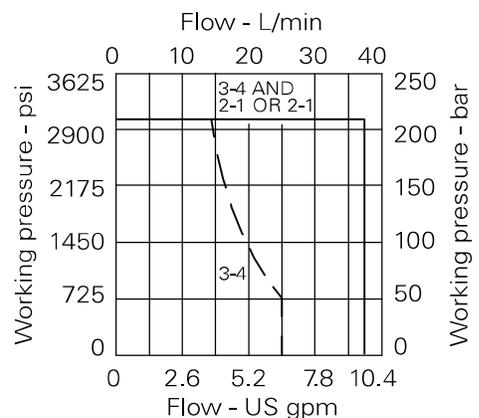
Description

This is a 4-way 2-position, high pressure, direct acting, spool type solenoid valve. This valve can be used in applications where a double acting actuator needs to be isolated.

Pressure drop



Performance



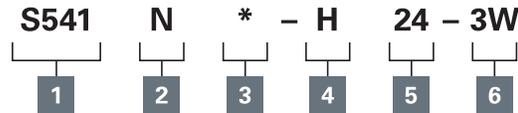
Where measurements are critical request certified drawings. We reserve the right to change specifications without notice.

S541 - Solenoid valve

4-way, 2-position spool type solenoid valve
Up to 30 L/min (8 USgpm) • 210 bar (3000 psi)

A

Model code



1 Function

S541

2 Seal material

N - Nitrile

V - Viton

3 Manual Override

2 - Screw

(Consult factory for availability).
See page A-960.

4 Coil Termination

H - DIN43650

F - Flying leads

DM - Deutsch moulded

Other terminations available on request

5 Voltage

12 - 12 VDC

24 - 24 VDC

110 - 110 VAC

220 - 220 VAC

6 Port size

Code	Port size	Housing number - Body only
		Aluminium
3W	3/8" BSP	B19240
4W	1/2" BSP	B19228
8T	1/2" SAE	B19229

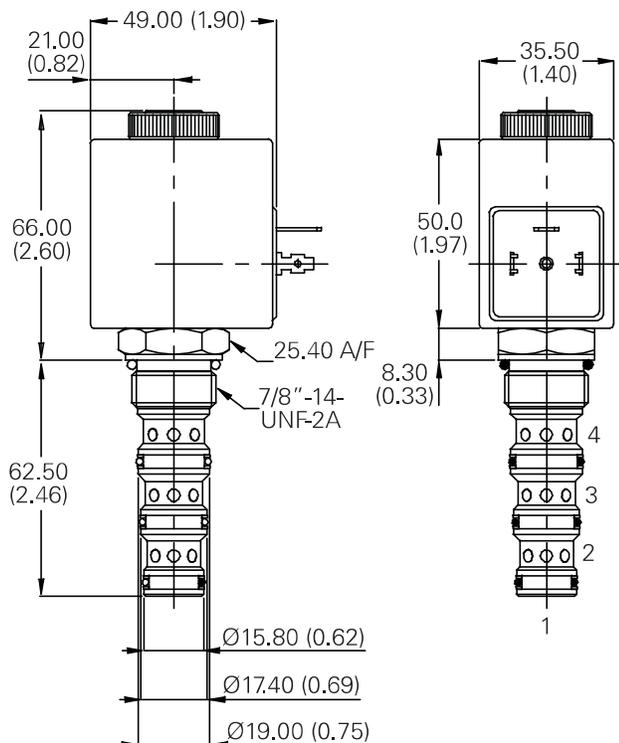
Dimensions

mm (inch)

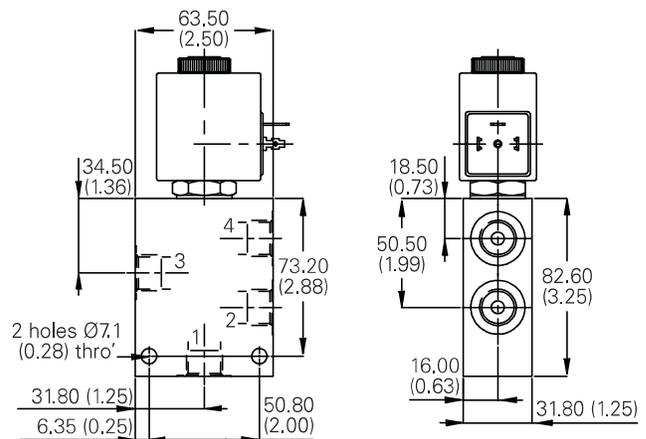
Cartridge only

Basic Code

S541



Installation drawing

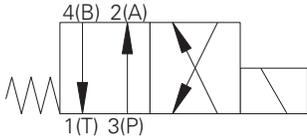


Where measurements are critical request certified drawings. We reserve the right to change specifications without notice.

S542 - Solenoid Valve

4-way, 2-position spool type solenoid valve
Up to 35 L/min (9 USgpm) • 210 bar (3000 psi)

A



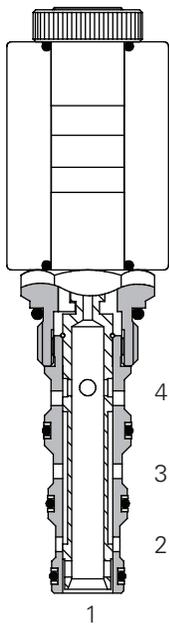
Operation

In the de-energized position this valve allows flow from port 4 to port 1 and from port 3 to port 2. In the energized position flow is allowed from port 3 to port 4 and from port 2 to port 1.

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 valves of same series.
- Manual override, seal variations and other options available.
- Sealed coil arrangement to protect stem from corrosion.
- Reversible coil without affecting performance.

Sectional View



Performance Data

Ratings and Specifications

Figures based on Viscosity 32 cST (150 SSU)

Max working pressure	210 bar (3000 psi)
Rated flow	See performance graphs
Nominal flow at P = 5 bar (70 psi)	20 L/min (5 USgpm)
Internal leakage	Less than 120 ml/min past each land 210 bar differential at 32 cSt
Temperature range	-30° to +120°C (-22° to +248°F)
Cavity	C-10-4 (See Section M)
Electrical data	See coil data sheet
Torque cartridge into cavity	30 Nm (22 lbs ft)
Mounting position	Unrestricted
Fluids	Most general purpose hydraulic fluids such as MIL-H-5606, SAE 10, SAE 20 etc.
Seal Material	Standard nitrile with PTFE back up rings
Filtration	B55540/4 Class 18/13 (25 micron or better)
Nominal viscosity range	15 to 250 cSt
Standard housing materials	Aluminium alloy
Coil weight	0.3 kg (.6 lbs)
Cartridge weight	0.205 kg (.45 lbs)
Seal kit	SK1031 (Nitrile) SK1031V (Viton®)
Coil part number	C16-*/*/19
Coil voltage available	12, 24 VDC, 110, 220, VAC*

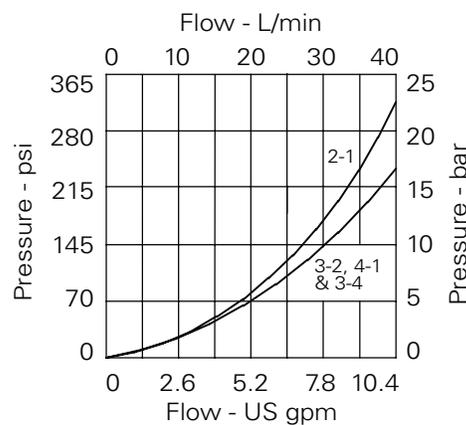
Viton is a registered trademark of E.I. DuPont

*AC coils must be used with a rectifying connector

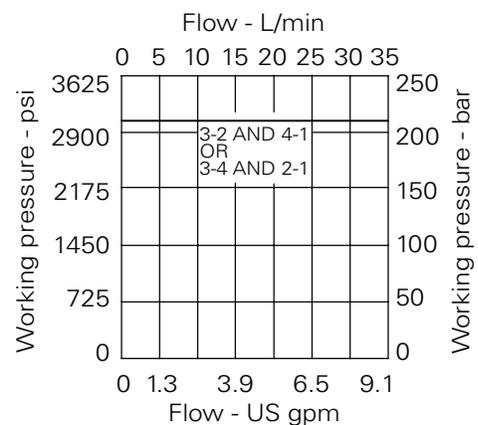
Description

This is a 4-way 2-position, direct acting, spool type solenoid valve. This valve can be used in applications where the motion of a double acting cylinder or a motor needs to be reversed.

Pressure Drop



Performance

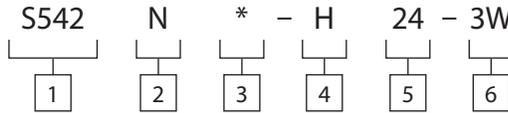


Where measurements are critical request certified drawings. We reserve the right to change specifications without notice.

S542 - Solenoid Valve

4-way, 2-position spool type solenoid valve
Up to 35 L/min (9 USgpm) • 210 bar (3000 psi)

Model Code



1 Function
S542

2 Seals
N - Nitrile
V - Viton

3 Manual Override
2 - Screw
(Consult factory for availability).
See page A-960

4 Coil Termination
H - DIN43650
F - Flying leads
DM - Deutsch moulded
Other terminations available
on request

5 Voltage
12 - 12 VDC
24 - 24 VDC
110 - 110 VAC
220 - 220 VAC

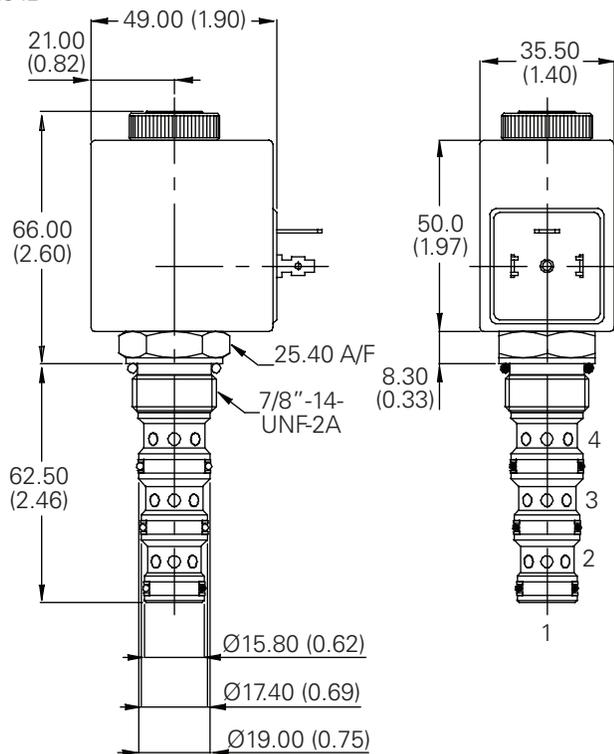
6 Port Sizes

Code	Port Size	Housing Number - Body Only
Aluminium		
3W	3/8" BSP	B19240
4W	1/2" BSP	B19228
8T	1/2" SAE	B19229

Dimensions

mm (inch)

Cartridge Only
Basic Code
S542



Installation Drawing

