

5/2 & 5/3 Valves Solenoid and Pilot Operated G¹/₄

- High flow compact valves
- Sub-base and low profile manifolds
- Light weight, long life corrosion resistant materials
- Multipole and Fieldbus compatible
- Flexible single step expansion



Technical Data

Medium:

Compressed air, filtered to 40µm, lubricated or non-lubricated

Operation:

Spool valve, indirectly actuated. Cylinder ports in valve or base

Mounting:

On sub-base or manifold

Port Size:

G¹/₄

Operating Pressure:

Maximum 10 bar. For details see overleaf

Flow Characteristics:

Size	Function	'C'	'b'	'A'	l/min	Cv	Kv
G ¹ / ₄	5/2	4,92	0,23	17,31	1152	1,17	1,02
G ¹ / ₄	5/3 APB	3,76	0,14	13,95	1014	1,03	0,90

Ambient Temperature:

-20°C to +80°C Pilot models

-20°C to +50°C Solenoid models

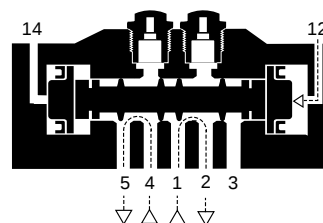
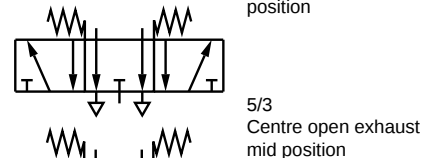
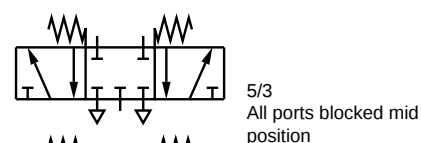
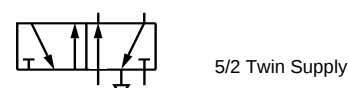
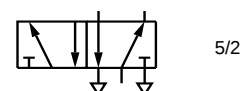
*Consult our Technical Service for use below +2°C

Materials

Aluminium alloy body. Glass filled PA (nylon) or glass filled PPS (polyphenylene sulphide) end caps. Glass filled PBT (polybutylene terephthalate) solenoid adapters aluminium alloy pistons and spool with HNBR (hydrogenated nitrile) seals. Aluminium alloy Sub-bases and Manifolds with NBR (nitrile butadiene) gaskets.

Ordering Information

To order, quote model number and voltage code from tables overleaf, e.g. V14B517A-B213A for a Solenoid Pilot Actuated, Spring Return model fitted with a 24 V d.c. coil and screwdriver operated manual override.



For further technical data on Multipole Systems and complete Valve Islands see Section 5.4.156



Nugget 120, V14 Series

General Information

5/2 Solenoid Actuated Valves, supplied with gaskets as indicated

Symbol	Model	Manual Override	Pilot Supply (Gasket Type) [†]	Operator	Return	Operating Pressure (bar)	Pilot Pressure (bar)	Weight (kg)	Spares kit	Mounting Option
	V14B517A-B21*A	Screwdriver Bi-stable	Internal (W)	Solenoid	Spring	1,8 - 10	-	0,155	V10316-K30	All Bases
	V14B517A-B31*A	Push Button								
	V14B527A-B21*A	Screwdriver Bi-stable	External (X)	Solenoid	Spring	-0,9 - 10	1,8 - 10	0,155	V10316-K30	Sub-base
	V14B527A-B31*A	Push Button								
	V14B57A-B21*A	Screwdriver Bi-stable	Internal Twin Supply (Z)	Solenoid	Spring	-0,9 - 10	1,8 - 10	0,155	V10316-K30	Single Sub-base and Manifold
	V14B57A-B31*A	Push Button								
	V14B5E7A-B21*A	Screwdriver Bi-stable	Independent External (Y)	Solenoid	Spring	-0,9 - 10	1,8 - 10	0,165	V10316-K30	Single Sub-base and Manifold
	V14B5E7A-B31*A	Push Button								
	V14B511A-B21*A	Screwdriver Bi-stable	Internal (W)	Solenoid	Solenoid	1,2 - 10	-	0,215	V10316-K30	All Bases
	V14B511A-B31*A	Push Button								
	V14B522A-B21*A	Screwdriver Bi-stable	External (X)	Solenoid	Solenoid	-0,9 - 10	1,2 - 10	0,215	V10316-K30	Sub-base
	V14B522A-B31*A	Push Button								
	V14B5FFA-B21*A	Screwdriver Bi-stable	Internal Twin Supply (Z)	Solenoid	Solenoid	-0,9 - 10	1,2 - 10	0,215	V10316-K30	Single Sub-base and Manifold
	V14B5FFA-B31*A	Push Button								
	V14B5EEA-B21*A	Screwdriver Bi-stable	Independent External (Y)	Solenoid	Solenoid	-0,9 - 10	1,2 - 10	0,235	V10316-K30	Single Sub-base and Manifold
	V14B5EEA-B31*A	Push Button								

5/3 Solenoid Actuated Valves, supplied with gaskets as indicated

Symbol	Model	Manual Override	Pilot Supply (Gasket Type) [†]	Operator	Mid-Position	Return	Operating Pressure (bar)	Pilot Pressure (bar)	Weight (kg)	Spares kit	Mounting Option
	V14B611A-B21*A	Screwdriver Bi-stable	Internal (W)	Solenoid	APB	Solenoid	2,2 - 10	-	0,225	V10317-K30	All Bases
	V14B611A-B31*A	Push Button									
	V14B622A-B21*A	Screwdriver Bi-stable	External (X)	Solenoid	APB	Solenoid	-0,9 - 10	2,2 - 10	0,225	V10317-K30	Sub-base
	V14B622A-B31*A	Push Button									
	V14B6FFA-B21*A	Screwdriver Bi-stable	Internal Twin Supply (Z)	Solenoid	APB	Solenoid	-0,9 - 10	2,2 - 10	0,225	V10317-K30	Single Sub-base and Manifold
	V14B6FFA-B31*A	Push Button									
	V14B711A-B21*A	Screwdriver Bi-stable	Internal (W)	Solenoid	COE	Solenoid	2,2 - 10	-	0,225	V10318-K30	All Bases
	V14B711A-B31*A	Push Button									
	V14B722A-B21*A	Screwdriver Bi-stable	External (X)	Solenoid	COE	Solenoid	-0,9 - 10	2,2 - 10	0,225	V10318-K30	Sub-base
	V14B722A-B31*A	Push Button									
	V14B811A-B21*A	Screwdriver Bi-stable	Internal (W)	Solenoid	COP	Solenoid	2,2 - 10	-	0,225	V10347-K30	All Bases
	V14B811A-B31*A	Push Button									
	V14B822A-B21*A	Screwdriver Bi-stable	External (X)	Solenoid	COP	Solenoid	-0,9 - 10	2,2 - 10	0,225	V10347-K30	Sub-base
	V14B822A-B31*A	Push Button									

* Insert Voltage Code from table opposite.

‡ Pressure to port 5 must not be less than the stated pressure for valve type.

† Gasket type supplied with the valve, for details see section 5.4.155.05.

Type Y gaskets are supplied with the Fixed Length Manifold and the Single Station Sub-base.

APB = All Ports Blocked, COE = Centre Open Exhaust, COP = Centre Open Pressure.



Pilot Actuated Valves, supplied with Sub-base gaskets

Symbol	Model	Gasket Type †	Operator	Mid-Position	Return	Operating Pressure (bar)	Pilot Pressure (bar)	Weight	Spares kit (kg)	Mounting Option
	V14B5D7A-X0090	X	Pilot	-	Spring	-0,9 - 10	1,8 - 10	0,100	V10316-K30	All Bases
	V14B5DDA-X0020	X	Pilot	-	Pilot	-0,9 - 10	1,2 - 10	0,100	V10316-K30	All Bases
	V14B59DA-X0060	X	Pilot Priority	-	Pilot	-0,9 - 10	1,2 - 10	0,100	V10316-K30	All Bases
	V14B6DDA-X0020	X	Pilot	APB	Pilot	-0,9 - 10	2,2 - 10	0,110	V10317-K30	All Bases
	V14B7DDA-X0020	X	Pilot	COE	Pilot	-0,9 - 10	2,2 - 10	0,110	V10318-K30	All Bases
	V14B8DDA-X0020	X	Pilot	COP	Pilot	-0,9 - 10	2,2 - 10	0,110	V10347-K30	All Bases

† Gasket type supplied with the valve, for details see section 5.4.155.05.

APB = All Ports Blocked, COE = Centre Open Exhaust, COP = Centre Open Pressure

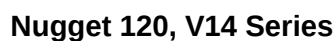
*Voltage Codes and Spare Coils

Voltage	Codes	Power Inrush/Hold	Coil Part Number
6V d.c. & 12V 50/60Hz	1	1,5 W 4,1/2,9 VA	V10025-A11
12V d.c.	2	1,7 W	V10025-A12
24V d.c.	3	1,7 W	V10025-A13
24V 50/60Hz	4	4,1/2,9 VA	V10025-A14
48V 50/60Hz	6	4,1/2,9 VA	V10025-A16
110V 50/60Hz	8	3,5/2,5 VA	V10025-A18
240V 50/60Hz	9	3,5/2,5 VA	V10025-A19

Electrical Details for Solenoid Operators

Voltage Tolerances:	±10%
Rating:	100% E.D.
Inlet Orifice:	0,8 mm
Electrical Connection:	DIN 43 650 table 'C'
Manual Override:	V14B5--A-B21*A – Screwdriver Bi-stable V14B5--A-B31*A – Push button, spring return
Protection Class:	IP 65 (DIN 40 050)

For details of connector plugs and light emitting seals see section 7.7.001.



Sub-base Assemblies - Side Ported	Sub-base Assemblies - Bottom Ported	Modular Sub-base	PIF Sub-base	End Plate Kit
V14CAX**-XXXX Single Pressure	V14CCX**-XXXX Single Pressure	V14B517R-Q010G Side Ported	V14B517R-Q0108 Side Ported	V14B517R-Q050G Side Ported
V14CAX**-***XX Dual Pressure	V14CCX**-***XX Dual Pressure	V14B517R-Q020G Bottom Ported	V14B517R-Q0208 Bottom Ported	V14B517R-Q020G Bottom Ported

				
Fixed Length manifold	Single Station Sub-base Side Ported	Single Station Sub-base Bottom Ported	Single Station Sub-base Bottom Ported	Intermediate Supply/Exhaust Plate
V10028-G** 01. 02. 04. 06. 08. 10. 12 Stations	V10121-G01	G ³ / ₄	V10122-G01	G ³ / ₄
			V10486-G01	G ³ / ₄
				V14B517A-Q240G

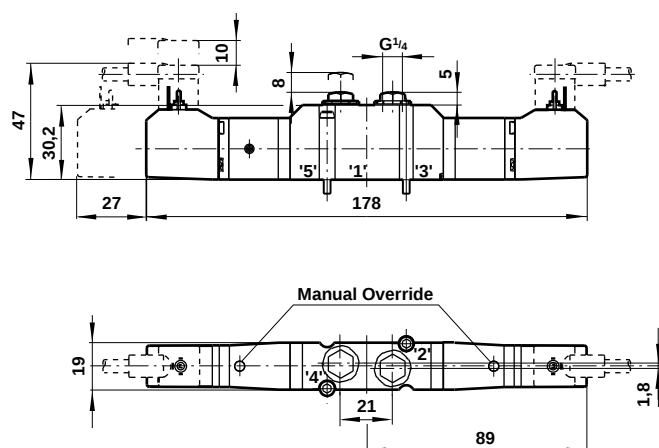
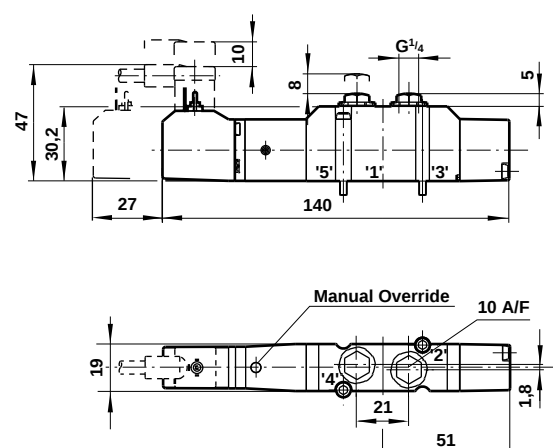
				
Blanking Plate for unused station	Pressure Indicator	DIN-rail Mounting Kit	DIN-rail	Tie Rod Kit
V14B517A-02800	V14B517A-02700	V10319-K30	V10009-C001 Metre	V14B517A-004**

				
Pressure Regulator Block	Pressure Gauge Kit for PRV	Flow Regulator Block	Pressure Switch Assembly	Blanking Gasket Set
V14B517A-Q2103 Dual	V14B517A-Q2120 Dual	V14B517A-Q2201	V14B517A-Q1700	V10040-K96 Modular Sub-base
V14B517A-Q2106 Mono port 2	V14B517A-Q2121 Mono	—	—	—
V14B517A-Q2109 Mono port 4				

			
Blanking Plug For Fixed Length Manifold			
V10320-K01	Manifold	G $\frac{3}{8}$	** = 02 to 20 stations.(01, 02, 04, 06, 08, 10, 12 stations for Fixed Length Manifold)
V10320-K02	Manifold	G $\frac{1}{4}$	**_** = 01 to 19 to indicate position of Dual Pressure Blanking Plate. See page 7.

V14B5**A Models

5/2 Double Solenoid Valve





V14B5D7A-X0090
5/2 Single Pilot Valve

