Sub-base mounted 2x3/2, 5/2 and 5/3 valves
Solenoid actuated with Wireway
Ø 8mm, G¼

Multipole design for easy installation

IP40, IP65 and NEMA 4 Conduit entry models

Fieldbus compatible

Dedicated AS-Interface modules

24 V d.c. or 24 V a.c. option

G1/4 or Ø 8 mm PIF ports

Common positive available as an option

Technical data

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

Operation:
Spool valve, indirectly actuated

Port size (sub-base):
G1/4, Ø 8mm G3/8 inlet

Operating pressure:
2 to 8 bar

Temp. range:
-20°C to +50°C

*Consult our Technical Service for use below +2ºC

Materials
Aluminium alloy body, glass filled co-polymer end caps, aluminium spool with HNBR seals.

Flow characteristics: port sizes: G1/4

	'A'	'C'	'b'	l/min	SCFM	Cv	Kv
2 x 3/2 NC	10,55	2,65	-	770	10,0	0,65	0,56
2 x 3/2 NO	11,77	2,93	-	880	11,15	0,85	0,73
5/2	11,41	2,85	0,51	900	11,60	0,86	0,86
5/3 COE	11,65	2,89	-	770	10,10	0,75	0,62
5/3 APB	11,41	2,85	-	760	9,65	0,70	0,60
5/3 COP	12,47	3,10	0,20	850	11,50	0,85	0,73

Technical data Wireway

Indication by yellow LED

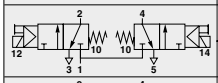
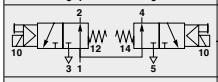
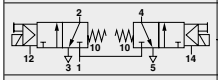
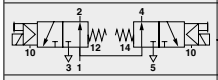
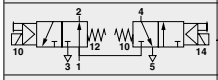
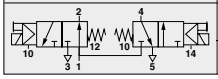
Suppression by flywheel diode

Degree of protection:
IP40 'D' sub-connector
IP65 'D' sub-connector with cover
IP65 and NEMA 4 conduit entry type
IP65 Round "Bayonet lock" connector

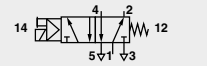
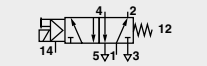
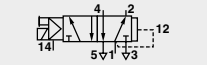
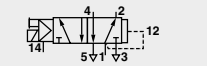
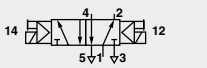
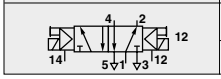
Ordering information

To order,complete Valve Island Specification form on page 5.4.157.06 and fax to your local IMI Norgren office for free consultation service.

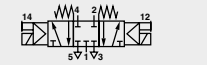
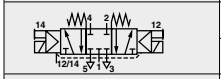
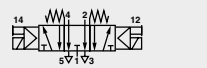
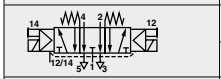
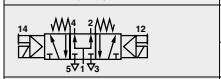
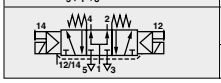
General information
2x3/2 Double solenoid actuated valves

Symbol	Model	Manual* Overide	Function 2x3/2	Solenoid Pilot supply	Actuation	Operating Pressure (bar)	Solenoid pilot Pressure (bar)	Weight (kg)	Order Code
	V22BA11A-B213R	sdmo	Normally closed	Internal	Sol/spring	2,2 to 8	–	160	01
	V22BA11A-B313R	pbmo							02
	V22BB11A-B213R	sdmo	Normally open	Internal	Sol/Spring	2,2 to 8	–	160	03
	V22BB11A-B313R	pbmo							04
	V22BA22A-B213R	sdmo	Normally closed	External	Sol/Spring	-0.9 to 10	2,2 to 8	160	05
	V22BA22A-B313R	pbmo							06
	V22BB22A-B213R	sdmo	Normally open	External	Sol/Spring	-0.9 to 10	2,2 to 8	160	07
	V22BB22A-B313R	pbmo							08
	V22BC11A-B213R	sdmo	Normally open/ normally closed	Internal	Sol/Spring	2,2 to 8	–	160	09
	V22BC11A-B313R	pbmo							10
	V22BC22A-B213R	sdmo	Normally open/ normally closed	External	Sol/Spring	-0.9 to 10	2,2 to 8	160	11
	V22BC22A-B313R	pbmo							12

5/2 Solenoid/Spring actuated valves

Symbol	Model	Manual* Overide	Solenoid Pilot supply	Mid position	Operating Pressure (bar)	Solenoid pilot Pressure (bar)	Weight (kg)	Order Code
	V22B517A-B213R	sdmo	Internal	Sol/Spring	1,8 to 8	–	135	13
	V22B517A-B313R	pbmo						14
	V22B527A-B213R	sdmo	External	Sol/Spring	-0,9 to 10	1,8 to 8	135	15
	V22B527A-B313R	pbmo						16
	V22B513A-B213R	sdmo	Internal	Sol/Air	1,5 to 8	–	135	17
	V22B513A-B313R	pbmo						18
	V22B523A-B213R	sdmo	External	Sol/Air	-0,9 to 10	1,5 to 8	135	19
	V22B523A-B313R	pbmo						20
	V22B511A-B213R	sdmo	Internal	Sol/Sol	1,2 to 8	–	150	21
	V22B511A-B313R	pbmo						22
	V22B522A-B213R	sdmo	External	Sol/Sol	-0,9 to 10	1,2 to 8	150	23
	V22B522A-B313R	pbmo						24

5/3 Double solenoid actuated valves

Symbol	Model	Manual* Overide	Solenoid Pilot supply	Mid position	Operating Pressure (bar)	Solenoid pilot Pressure (bar)	Weight (kg)	Order Code
	V22B611A-B213R	sdmo	Internal	APB	2,2 to 8	–	160	25
	V22B611A-B313R	pbmo						26
	V22B622A-B213R	sdmo	External	APB	-0,9 to 10	2,2 to 8	160	27
	V22B622A-B313R	pbmo						28
	V22B711A-B213R	sdmo	Internal	COE	2,2 to 8	–	160	29
	V22B711A-B313R	pbmo						30
	V22B722A-B213R	sdmo	External	COE	-0,9 to 10	2,2 to 8	160	31
	V22B722A-B313R	pbmo						32
	V22B811A-B213R	sdmo	Internal	COP	2,2 to 8	–	160	33
	V22B811A-B313R	pbmo						34
	V22B822A-B213R	sdmo	External	COP	-0,9 to 10	2,2 to 8	160	35
	V22B822A-B313R	pbmo						36

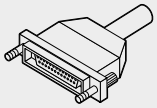
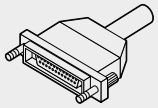
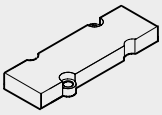
APB = All Ports Blocked
COP = Centre Open Pressure
pbmo = push button mono-stable

COE = Centre Open Exhaust
sdmo = screwdriver bi-stable

Note:
Customers are advised that to comply with the Machinery Directive manual override type PBMO should be selected

* Valve without manual override can be supplied. Change 11th digit to 1 i.e. V22-------**1**---

Accessories

 D Sub-connector IP40	 D Sub-connector IP65 with seal	 Blanking plate
V10020-E01 1 metre **A1**	V11063-E01 1 metre **A4**	V14B517A-Q2700 **A7**
V10020-E03 3 metre **A2**	V11063-E03 3 metre **A5**	
V10020-E05 5 metre **A3**	V11063-E05 5 metre **A6**	

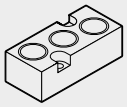
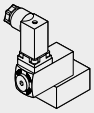
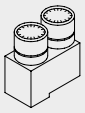
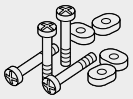
Electrical details

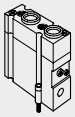
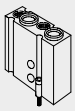
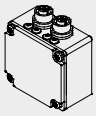
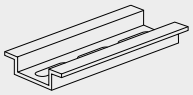
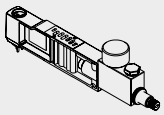
Wireway

Voltage:	24V d.c. 1,5W	24V ac
Surge supression:	Flywheel diode	Flywheel diode
Indication:	Yellow LED	Yellow LED

Solenoids

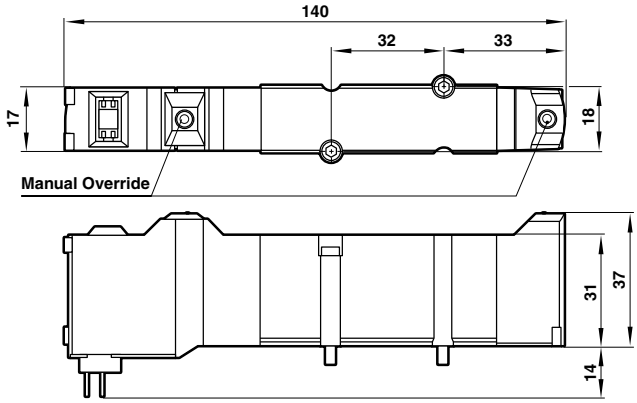
Voltage tolerance:	±10%
Rating:	100%ED

 Intermediate supply/exhaust plate	 Pressure switch	 DIN Rail	 DIN Rail mounting kits
V14B517A-Q240G **A8**	V14B517A-Q1700 **A9**	V10009-C00 1 metre **A10**	V10319-K30 **A11**

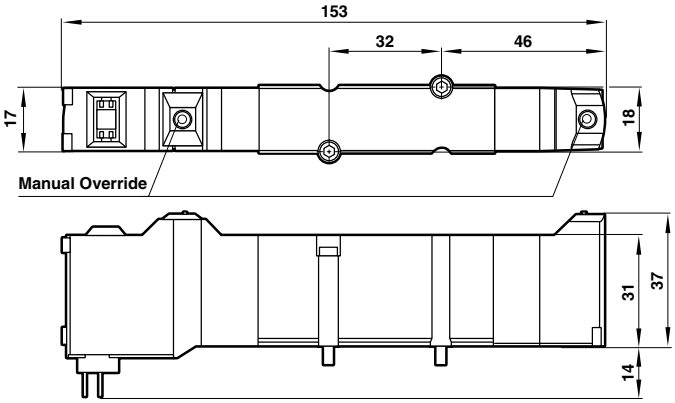
 Pressure regulator block	 Flow regulator block	 Remote output module	 Pressure gauge kit	 Pressure regulator
V14B517A-Q2103 Dual **A12**	V14B517A-Q2201 **A15**	VE1MP22A-00400 (LH)	V14B517A-Q2120 Dual **A16**	V11271-K02 **A22**
V14B517A-Q2106 Mono port 2 **A13**		VE1MP22B-00400 (RH)	V14B517A-Q2121 Mono **A17**	
V14B517A-Q2109 Mono port 3 **A14**				

V22 Models

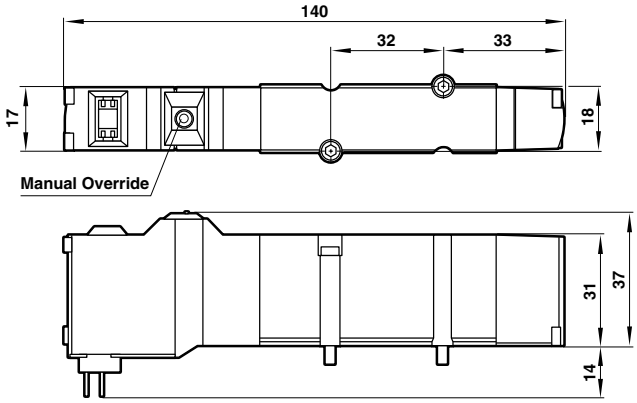
2x3/2 and 5/2 Double solenoid actuated valves



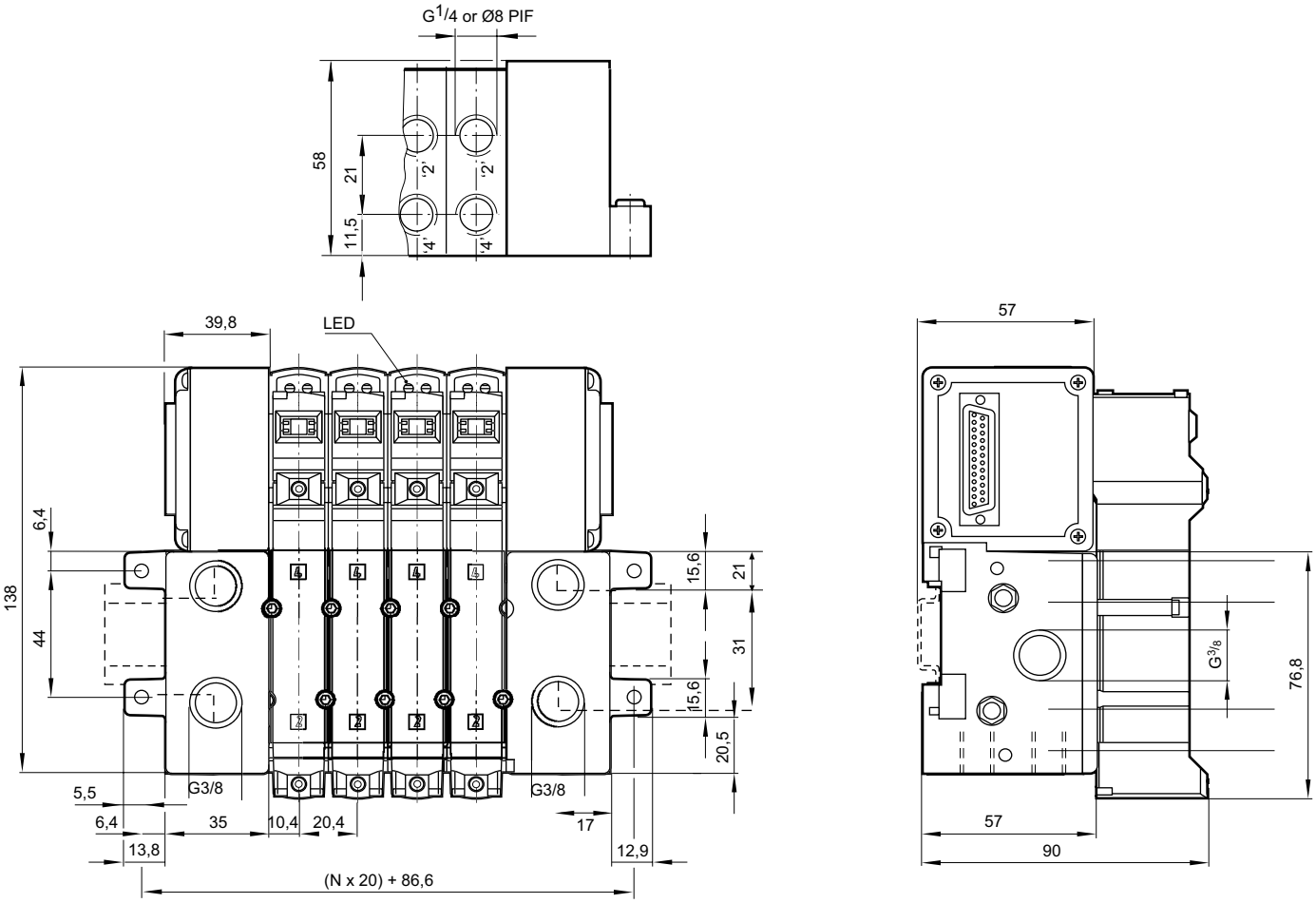
5/3 Double solenoid actuated valves



5/2 Solenoid/Spring actuated valves

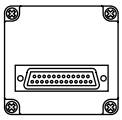


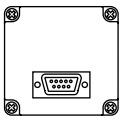
Valve Islands dimensions



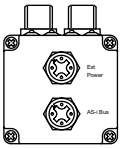
Electrical Connection Options

Left or Right Hand Side

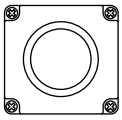

'D' Sub Connector

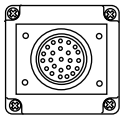

Local Bus*

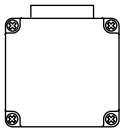
AS-I (4 Output)

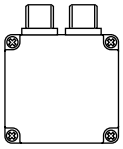


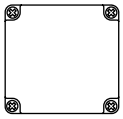
AS-I (2 Output, 2 Input)


Conduit entry type (1" & M25)


IP65 Round Connector


Top Mounted 'D' Connector

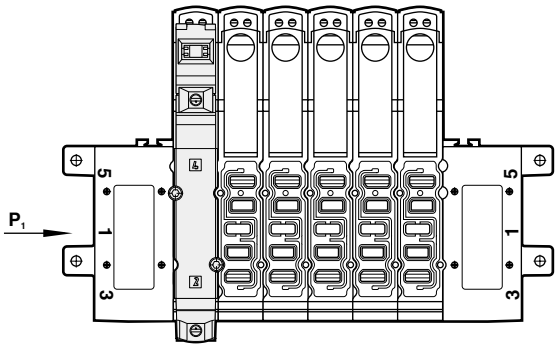

Remote Output


No Connection

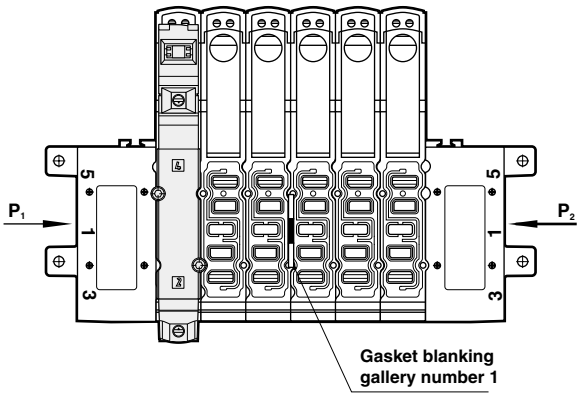
* Used with Fieldbus II See Data Sheet 6.4.040

Pressure options - sub-base systems

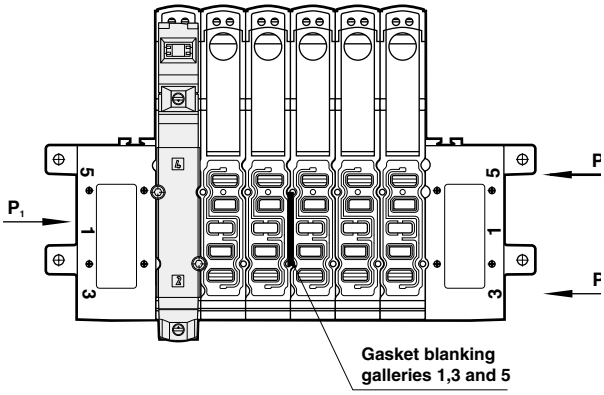
Single pressure



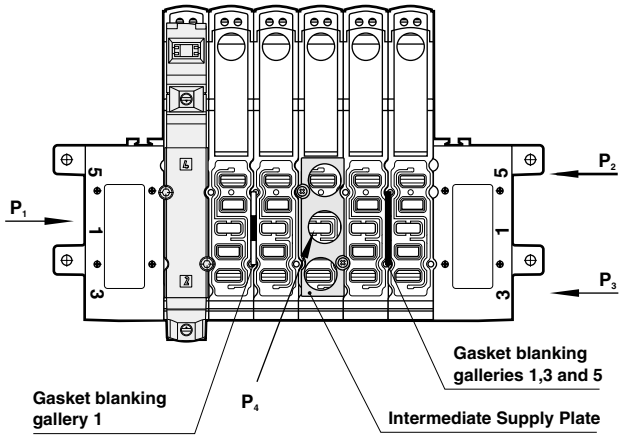
Dual pressure



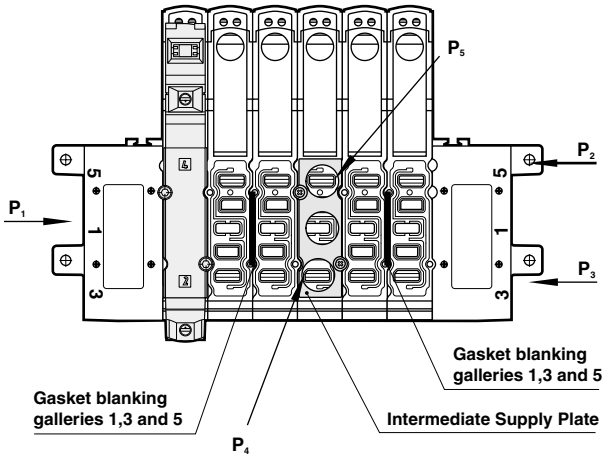
Three pressures



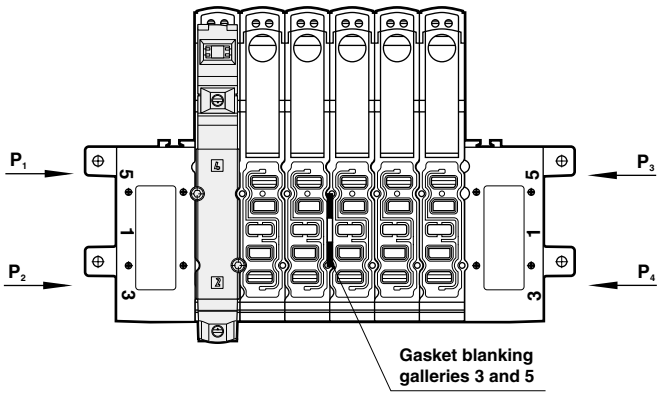
Four pressures



Five pressures

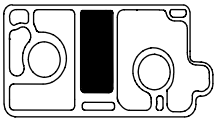


2 x Twin pressure



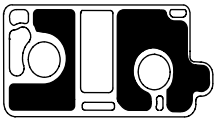
Gasket codes for use in Valve Island Specification form

Order Code: G1



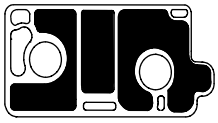
Gallery 1 blocked

Order Code: G3



Gallery 3 and 5 blocked

Order Code: G5



Gallery 1, 3 and 5 blocked

Valve island specification

Valve Island Specification Form VIP/ .....

Company name ..... Contact name .....

Address ..... Tel no .....

..... Fax no .....

..... E-mail .....

Using the short order codes provided complete the build model below.

One valve island per sheet only

Unit ID No. .....
Norgren to specify

Valve range

V20 ☐ V09 ☐

V22 ☐ V14 ☐

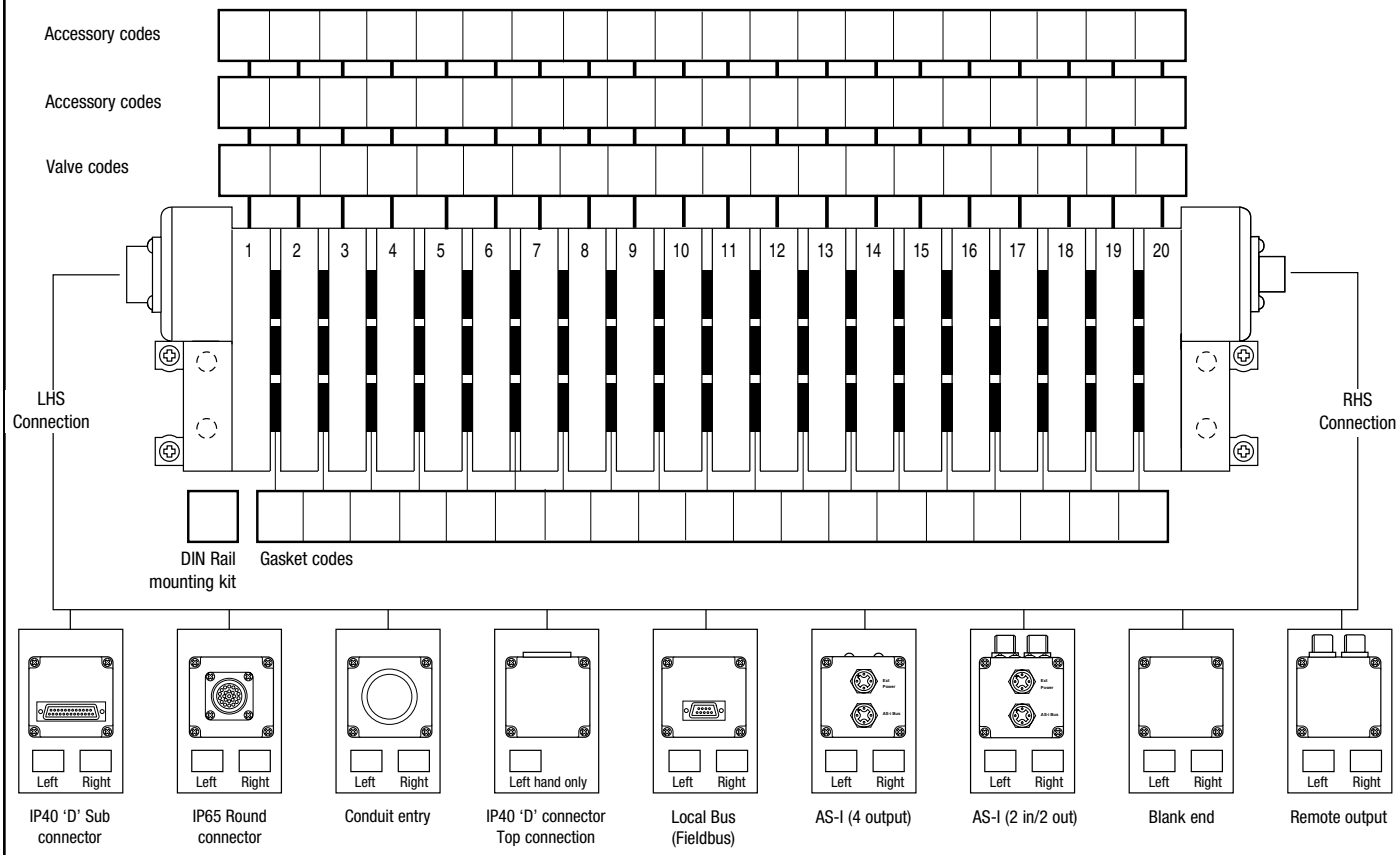
Pneumatic port selection

G1/8 ☐ 1/8 NPT ☐ Side ☐ 4 mm PIF ☐ 6 mm PIF ☐ No. of units required ☐

G1/4 ☐ 1/4 NPT ☐ Side ☐ Bottom ☐ 8 mm PIF ☐ No. of stations required ☐

Fieldbus diagnostic feature

Yes ☐ No ☐



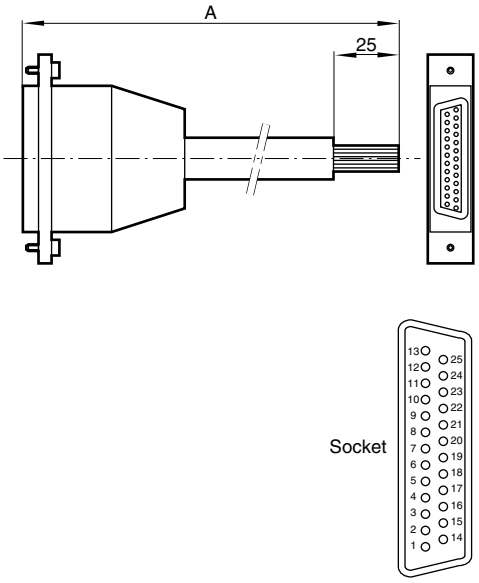
Connection options

V20 & V22 Voltage: Standard: 24 V d.c. negative common (Multipole & Fieldbus) ☐

Options: Multipole 24 V d.c. positive common ☐ 24 V a.c. ☐

V09 & V14 Voltage: 6 V d.c. ☐ 12 V d.c. ☐ 24 V d.c. ☐ 24 V a.c. ☐ 48 V a.c. ☐ 110 V a.c. ☐ 240 V a.c. ☐

IP40 D Sub-Connector



D-Sub connector with cable

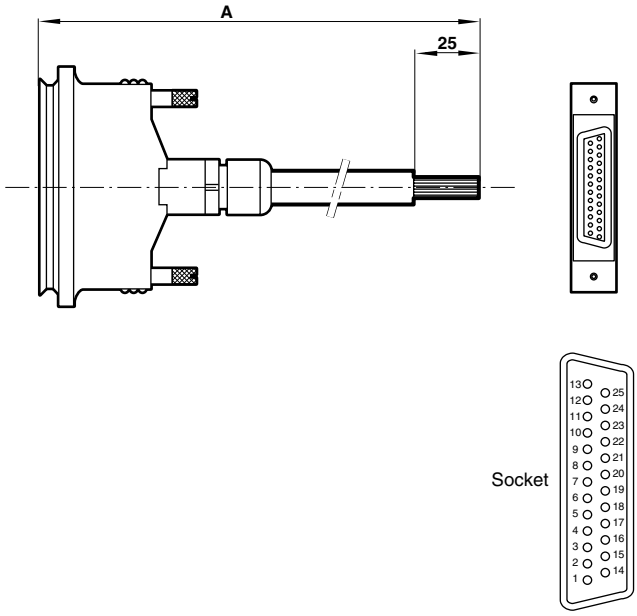
Type: 25 pin IP65

Model	A	Weight (Kg)
V10020–E01	1,0 m	0,276
V10020–E03	3,0 m	0,676
V10020–E05	5,0 m	1,076

Pin no.	Socket	Plug	Pin no.	Socket	Plug
1	Solenoid 1	Red	14	Solenoid 14	Green/red
2	Solenoid 2	Blue	15	Solenoid 15	Yellow/red
3	Solenoid 3	Green	16	Solenoid 16	White/red
4	Solenoid 4	Yellow	17	Solenoid 17	Red/black
5	Solenoid 5	White	18	Solenoid 18	Red/brown
6	Solenoid 6	Brown	19	Solenoid 19	Yellow/blue
7	Solenoid 7	Violet	20	Solenoid 20	White/blue
8	Solenoid 8	Orange	21	Not used	Blue/black
9	Solenoid 9	Pink	22	Not used	Orange/blue
10	Solenoid 10	Turquoise	23	Not used	Yellow/green
11	Solenoid 11	Grey	24	Common -ve	White/green
12	Solenoid 12	Red/blue	25	Common -ve	Orange/green
13	Solenoid 13	Black			

Solenoid no. 1 is nearest to the connector on valve island

IP65 D Sub-Connector



D-Sub connector with cable

Type: 25 pin IP65

Model	A	Weight (Kg)
V11063–E01	1,0 m	0,276
V11063–E03	3,0 m	0,676
V11063–E05	5,0 m	1,076

Pin no.	Socket	Plug	Pin no.	Socket	Plug
1	Solenoid 1	Red	14	Solenoid 14	Green/red
2	Solenoid 2	Blue	15	Solenoid 15	Yellow/red
3	Solenoid 3	Green	16	Solenoid 16	White/red
4	Solenoid 4	Yellow	17	Solenoid 17	Red/black
5	Solenoid 5	White	18	Solenoid 18	Red/brown
6	Solenoid 6	Brown	19	Solenoid 19	Yellow/blue
7	Solenoid 7	Violet	20	Solenoid 20	White/blue
8	Solenoid 8	Orange	21	Not used	Blue/black
9	Solenoid 9	Pink	22	Not used	Orange/blue
10	Solenoid 10	Turquoise	23	Not used	Yellow/green
11	Solenoid 11	Grey	24	Common -ve	White/green
12	Solenoid 12	Red/blue	25	Common -ve	Orange/green
13	Solenoid 13	Black			

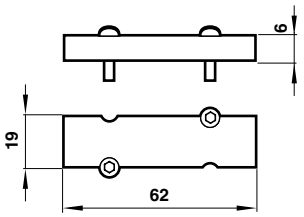
Solenoid no. 1 is nearest to the connector on valve island

Blanking plate

V14B517A-Q2700 0,014 kg

Blanking plate for blocking off unwanted station. Supplied with gaskets for sub-base mounting.

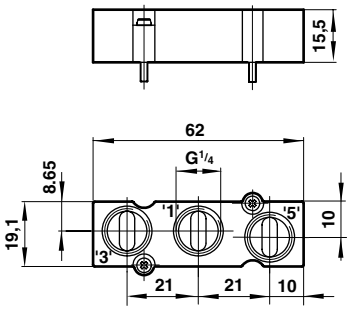
*Note: A blanking plug part number V11060-K01 will also be required for the multipole sub-base when using a blanking plate.



Intermediate supply and exhaust module

V14B517-Q240G 0,038 kg

G¼. Provides additional porting on modular sub-base systems. Occupies one valve station. Supplied with gaskets for sub-base mounting.



Can be used to:

Improve supply flow

Increase exhaust capacity

Pneumatically separate valves on valve island for fail safe in emergency

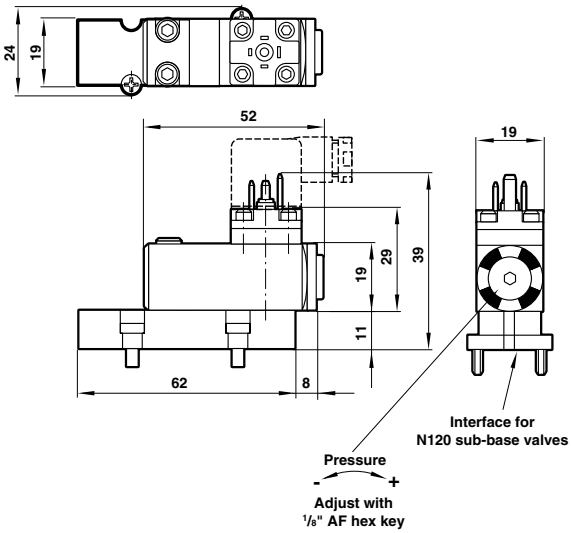
Supply and exhaust twin supply valves

*Note: A blanking plug part number V11060-K01 will also be required for the multipole sub-base when using a blanking plate.

Pressure switch assembly

V14B517A-Q1700 0,120 kg

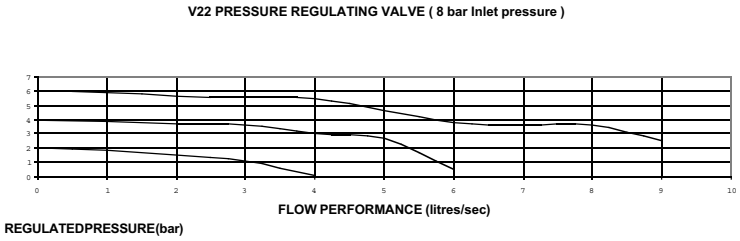
Used in conjunction with a suitable PLC based control system. Valves will not operate until the inlet pressure on the valve island is above a preset level.

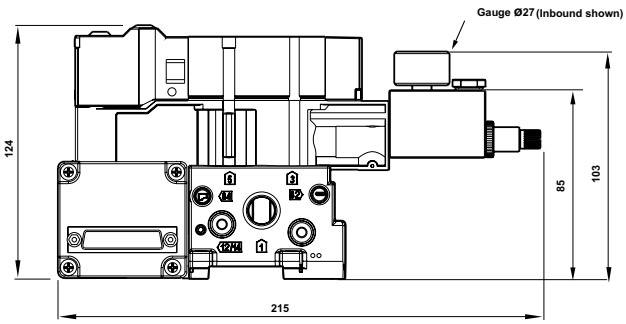


Sandwich pressure regulator

V11271-K02 - Gauge inboard

V11271-K03 - Gauge outboard

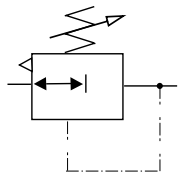




Sandwich regulator:

- Regulates on port 1
- Integral electrical connection
- IP65
- Gauge included

Circuit symbol



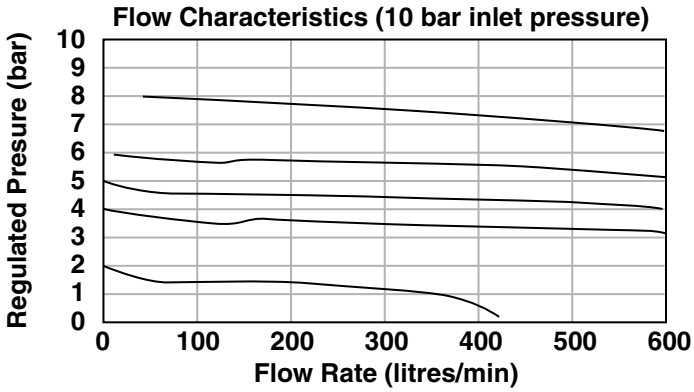
Pressure regulator block

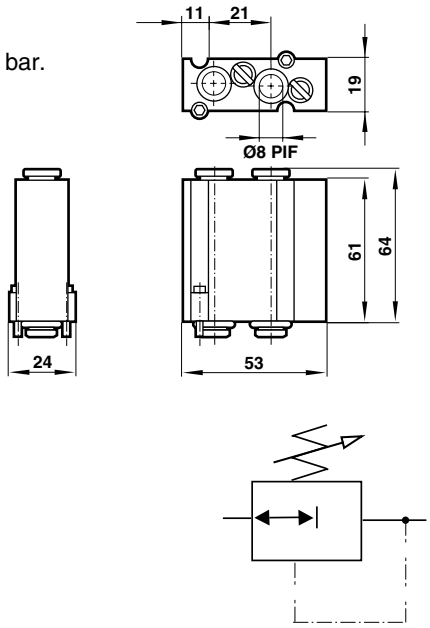
Regulates pressure on ports 2 & 4 or 2 or 4 at the sub-base as an alternative to sandwich regulator on pg 5.4.157.08

V14B517A-Q210* 0,155 kg

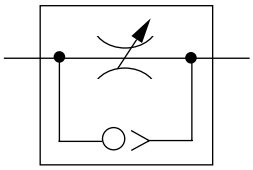
Available for operation over pressure 0-10 bar.

Part number	
V14B517A-Q2103	Dual regulation (2&4)
V14B517A-Q2106	Mono regulation (2 only)
V14B517A-Q2109	Mono regulation (4 only)



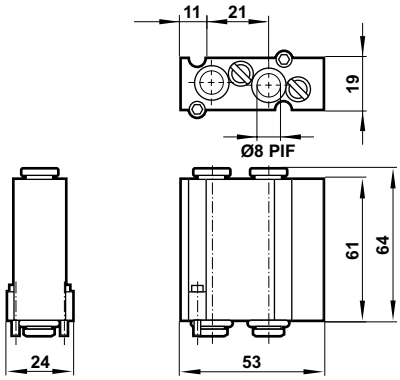


Flow regulator block



V14B517A-Q2201 0,140 kg

Dual regulation (ports 2 and 4).



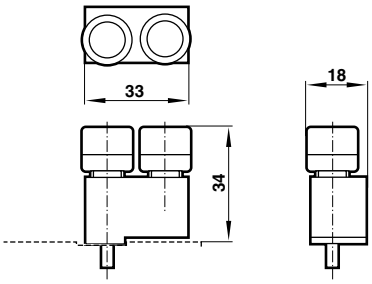
Pressure gauge kit

V14B517A-Q212* 0,020 kg

Available with dual and mono pressure gauges.

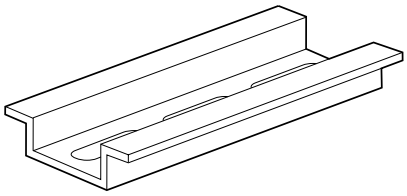
Part number	
V14B517A-Q2120	Dual pressure gauge
V14B517A-Q2121	Mono pressure gauge

For use with V14B517A-Q210* pressure regulator block



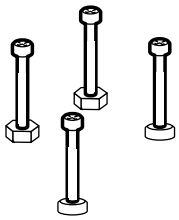
DIN Rail

V10009-C00 0,312 kg
1 metre



DIN Rail mounting kit

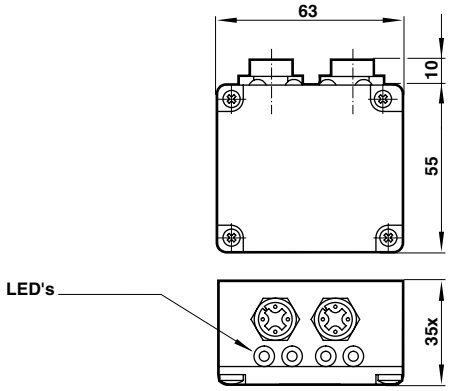
V10319-K01 0,008 kg
Kit for mounting side ported modular sub-bases on
DIN 46277-3, BS5584 and CENELEC EN 50·022 mounting rail.



Remote output modules

Application:
Remote output modules are used with valve islands to provide up to 4 outputs to remote devices such as soft start and monitored dump valves.

V22: 4 outputs VE1MP22A-00400 (Left hand side)
V22: 4 outputs VE1MP22B-00400 (Right hand side)



Blanking plug for unused multipole station

V11060-K01

Identification tabs

V11079-K01

Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under **'Technical Data'**.
Before using these products with fluids other than those specified, for non-industrial applications, life-support systems, or other applications not within published specifications, consult NORGREN.
Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes. The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.
System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.
System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.