

Nugget 40 Series Valves

Inline V08 Valves

High flow from 17 mm body width
 Low power solenoids with a range of voltages
 Use valves singly or with low profile fixed length manifold
 In-line or manifold

Technical data

Medium:

Compressed air, filtered, lubricated and non-lubricated.

Operating pressure:

Maximum 150 psig (10.3 bar)

See table for individual details.

Average Flow Factor (Cv)*

In-line Mounted

10-32 UNF or M5 ports: Cv .26

5/32" or 4 mm saddle block: Cv .23

1/4" or 6 mm saddle block: Cv .35

Subbase mounted: Cv 0.41

Ambient temperature:

Pilot models: -4°F to 176°F (-20°C to +80°C)

Solenoid models -4°F to 122°F (-20°C to +50°C).

Consult our Technical Service for use below +35°F (2°C).

Materials

Body: zinc alloy

End caps: glass filled nylon

Spool & manifold: aluminum

Seals: nitrile



Order Information

Valves listed in the table below include 10-32 UNF threads, air assisted spring, pressure or solenoid return, 110-120V 50/60 Hz, non-locking override, internal pilot and cable grip connector. For other options see the web site below.

Function	Actuation	Pilot feed	Manual override	Mid-position	Operating press. (psi)	Pilot pressure (psi)	wt. lb	Model	Service kits
5/2	Sol/Spring & air	Internal	Turn & lock		44 ... 145	—	0.3	V08N516A-B21*A	V10034-K00
5/2	Sol /Spring & air	Internal	Push only		44 ... 145	-	0.3	V08N516A-B31*A	V10034-K00
5/2	Sol/Sol	Internal	Turn & lock		29 ... 145	—	0.4	V08N511A-B21*A	V10034-K00
5/2	Sol /Sol	Internal	Push only		29 ... 145	-	0.4	V08N511A-B31*A	V10034-K00
5/2	Pilot/Spring & air	—	—		29 ... 145	22 + 7 x supply	0.3	V08N536A-X0130	V10034-K00
5/2	Pilot/Pressure	—	—		15 ... 145	29 ... 145	0.3	V08N533A-X0020	V10034-K00
5/2	Pilot bias/Pilot	—	—		15 ... 145	29 ... 145	0.3	V08N533A-X0060	V10034-K00
5/3	Solenoid	Internal	Turn & lock	APB	29 ... 145	—	0.3	V08N611A-B21*A	V10034-K01
5/3	Solenoid	Internal	Push only	APB	29 ... 145	—	0.3	V08N611A-B31*A	V10034-K01
5/3	Solenoid	Internal	Turn & lock	COE	29 ... 145	—	0.3	V08N711A-B21*A	V10034-K02
5/3	Solenoid	Internal	Push only	COE	29 ... 145	—	0.3	V08N711A-B31*A	V10034-K02
5/3	Solenoid	Internal	Turn & lock	COP	29 ... 145	—	0.3	V08N811A-B21*A	V10034-K03
5/3	Solenoid	Internal	Push only	COP	29 ... 145	—	0.3	V08N811A-B31*A	V10034-K03
5/3	Pressure	—	—	APB	15 ... 145	29 ... 145	0.3	V08N633A-X0020	V10034-K01
5/3	Pressure	—	—	COE	15 ... 145	29 ... 145	0.3	V08N733A-X0020	V10034-K02
5/3	Pressure	—	—	COP	15 ... 145	29 ... 145	0.3	V08N833A-X0020	V10034-K03

* Insert voltage code from table below. Order connector plugs separately. For integral flying lead coil substitute 14th digit with S e.g. V08N516A-B21*S
 APB = All Ports Blocked COE = Center Open Exhaust COP = Center Open Pressure

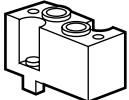
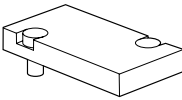
Voltage codes and spare coils

Voltage	Codes	Power inrush/hold	Coil part no.
6V d.c.	1	1.5 W	V10025-A11
12V d.c.	2	1.7 W	V10025-A12
24V d.c.	3	1.7 W	V10025-A13
12V 50/60Hz	1	4.1/2.9 VA	V10025-A11
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 43650 table 'C'
Protection class:	IP 65 (DIN 40050)

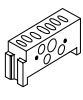
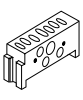
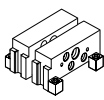
Accessories

Optional port connector blocks	Blanking plate
	
V085516A-Q0416, 1/4" PIF	V085516A-Q1100
V085516A-Q0404, Ø 4 mm	
V085516A-Q0406, Ø 6 mm	

Additional accessories include fixed length manifold V10026-G**.

Dual pressure blanking disc set V095516A-Q1900 is available to allow supply of two different inlet pressures simultaneously

Bases

Modular base 1/8 NPT	Modular base w/PIF	End plate kit
		
V095516A-Q130N	V095516R-Q130N	V095516A-Q140N
V095516A-Q130G	V095516R-Q1306	V095516A-Q140G

IP65 Integral flying lead coils (300 mm)



Voltage	Codes	Power	Coil part no.
12 V d.c.	B*12G	2.0 W	V10617-A12
24 V d.c.	B*13G	2.0 W	V10617-A13
110 V a.c.	B*18G	3.5 VA	V10617-A18

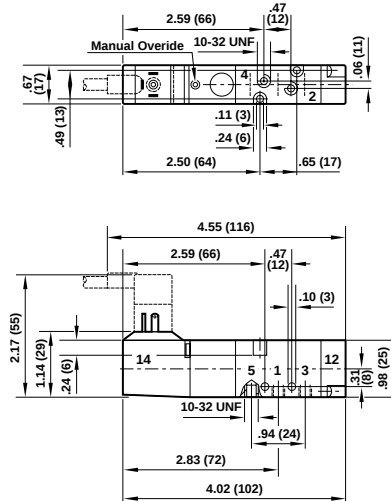
* Insert valve manual override code –
 2 = turn & lock, 3 = push only

Nugget 40 Series Valves

Inline V08 Valves

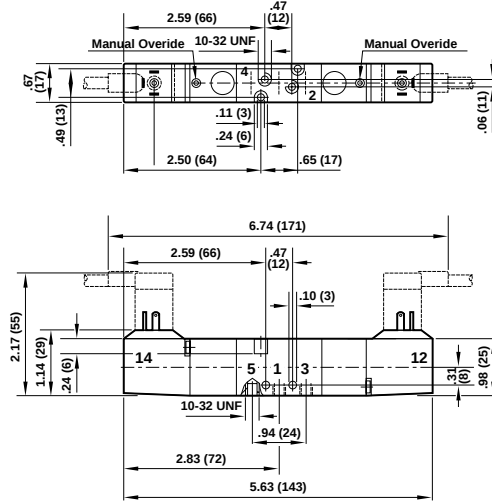
Dimensions in inches (mm)

V08N516A Models
5/2 Single solenoid valves



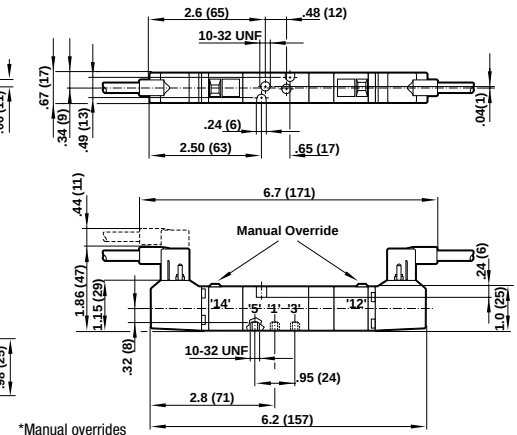
*Manual override

V08N511A Models
5/2 Double solenoid valves



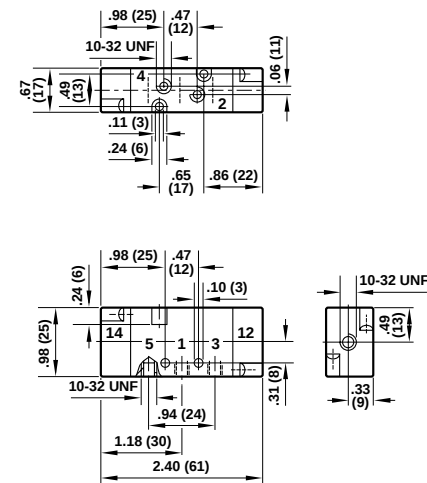
*Manual overrides

V08N*11A-B21*A Model
5/3 Double solenoid valves

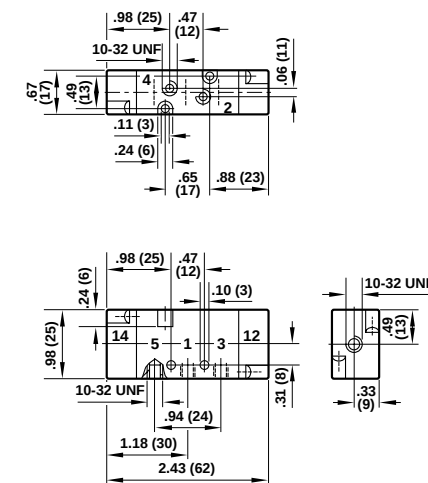


*Manual overrides

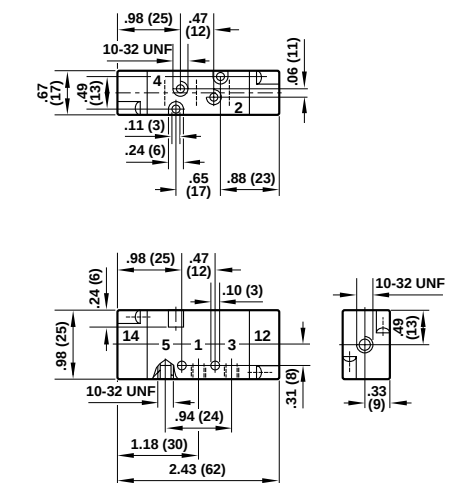
V08N536A-X0130 Model
5/2 Single pilot valves



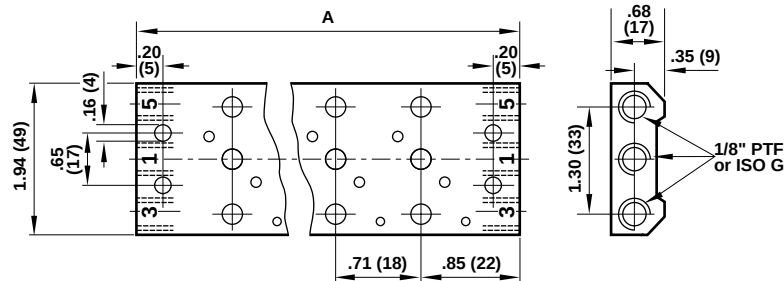
V08N533A-X0020 and V08N533A-X0060
5/2 Double pilot valves



V08N*33A-X0020 Model
5/3 Double pilot valves



Fixed length manifold
V10026-G**



No. of stations	A	Model NPT	ISO G
2	58	V10026-N02	V10026-G02
4	94	V10026-N04	V10026-G04
6	130	V10026-N06	V10026-G06
8	166	V10026-N08	V10026-G08
10	202	V10026-N10	V10026-G10
12	238	V10026-N12	V10026-G12

Note: Gaskets and valve fixing screws are supplied with these manifolds.

Nugget 40 Series Valves

Subbase Mounted V09 Valves



Multipole and electrical wireway for easy installation
IP 40, IP 65 and conduit entry models

24 V d.c. diagnostic with power saving circuits

Indicators and surge suppression as standard

From 12 V up to 240 V supply

Technical data

Indication:

By red LED (d.c.) or neon (a.c.)

Suppression:

By flywheel diode (d.c.) or VDR (a.c.)

Diagnostic:

Red LED: correct movement of armature

Orange LED: failed operation

50% power saving following correct armature movement.

Valve terminal pins to DIN 43650 table 'C'

Ambient temperature:

-4°F to 122°F (-20°C to +50°C)

Consult our Technical Service for use below 35°F (+2°C)

Connector types:

'D' sub-connector (IP 40)

Round type plug (IP 65)

Conduit entry type (IP 65)

Materials

Wireway housings: glass fiber reinforced co-polymer moldings

Conduit end caps: zinc pressure die-cast

End plates: aluminum

Sub-base modules: zinc pressure die-cast

Function	Actuation	Pilot feed	Mid pos.	Manual override	Operating pressure (psi)	Pilot pressure (psi)	Wt. lb	Model	Service kits	Mounting style
3/2	Sol/Spring & air	Internal	—	Turn & lock	44 ... 145	—	0.3	V095416R-B200A	V10034-K04	Sub-base
3/2	Sol/Spring & air	Internal	—	Push only	44 ... 145	—	0.3	V095416R-B300A	V10034-K04	Sub-base
3/2	Sol/Spring & air	External	—	Turn & lock	26" Hg ... 145	22+7 x supply	0.3	V095426R-B200A	V10034-K04	Sub-base
3/2	Sol/Spring & air	External	—	Push only	26" Hg ... 145	22+7 x supply	0.3	V095426R-B300A	V10034-K04	Sub-base
5/2	Sol/Spring & air	Internal	—	Turn & lock	44 ... 145	—	0.3	V096516A-B21*A	V10034-K00	All bases
5/2	Sol/Spring & air	Internal	—	Push only	44 ... 145	—	0.3	V096516A-B31*A	V10034-K04	All bases
5/2	Sol/Spring & air	External	—	Turn & lock	15 ... 145	22+7 x supply	0.3	V096526A-B21*A	V10034-K00	Single & mod.
5/2	Sol/Spring & air	External	—	Push only	15 ... 145	22+7 x supply	0.3	V096526A-B31*A	V10034-K00	Single & mod.
5/2	Sol/Sol	Internal	—	Turn & lock	29 ... 145	—	0.4	V096511A-B21*A	V10034-K00	All bases
5/2	Sol/Sol	Internal	—	Push only	29 ... 145	—	0.4	V096511A-B31*A	V10034-K00	All bases
5/2	Sol/Sol	External	—	Turn & lock	15 ... 145	29 ... 145	0.4	V096522A-B21*A	V10034-K00	Single & mod.
5/2	Sol/Sol	External	—	Push only	15 ... 145	29 ... 145	0.4	V096522A-B31*A	V10034-K00	Single & mod.
5/2	Sol/Air/Air	Internal	—	Turn & lock	22 ... 145	—	0.3	V096513A-B21*A	V10034-K00	All bases
5/2	Sol/Air/Air	Internal	—	Push only	22 ... 145	—	0.3	V096513A-B31*A	V10034-K00	All bases
5/2	Pilot/Spring & air	—	—	—	29 ... 145	22+7 x supply	0.3	V096536A-X0130	V10034-K00	All Bases
5/2	Pilot/Pilot	—	—	—	15 ... 145	29 ... 145	0.3	V096533A-X0020	V10034-K00	All Bases
5/2	Pilot/priority/Pilot	—	—	—	15 ... 145	29 ... 145	0.3	V096533A-X0060	V10034-K00	All Bases
5/3	Sol/Sol	Internal	APB	Turn & lock	26" Hg ... 45	—	0.5	V096611A-B21*A	V10034-K01	All Bases
5/3	Sol/Sol	—	—	Push only	26" Hg ... 45	—	0.5	V096611A-B31*A	V10034-K01	All Bases
5/3	Sol/Sol	External	APB	Turn & lock	26" Hg ... 45	17 ... 145	0.5	V096622A-B21*A	V10034-K01	Sub-base
5/3	Sol/Sol	—	—	Push only	26" Hg ... 45	17 ... 145	0.5	V096622A-B31*A	V10034-K01	Sub-base
5/3	Sol/Sol	Internal	COE	Turn & lock	26" Hg ... 45	—	0.5	V096711A-B21*A	V10034-K02	All Bases
5/3	Sol/Sol	—	—	Push only	26" Hg ... 45	—	0.5	V096711A-B31*A	V10034-K02	All Bases
5/3	Sol/Sol	External	COE	Turn & lock	26" Hg ... 45	17 ... 145	0.5	V096722A-B21*A	V10034-K02	Sub-base
5/3	Sol/Sol	—	—	Push only	26" Hg ... 45	17 ... 145	0.5	V096722A-B31*A	V10034-K02	Sub-base
5/3	Sol/Sol	Internal	COP	Turn & lock	26" Hg ... 45	—	0.5	V096811A-B21*A	V10034-K03	All Bases
5/3	Sol/Sol	—	—	Push only	26" Hg ... 45	—	0.5	V096811A-B31*A	V10034-K03	All Bases
5/3	Sol/Sol	External	COP	Turn & lock	26" Hg ... 45	17 ... 145	0.5	V096822A-B21*A	V10034-K03	Sub-base
5/3	Sol/Sol	—	—	Push only	26" Hg ... 45	17 ... 145	0.5	V096822A-B31*A	V10034-K03	Sub-base
5/3	Pilot/Pilot	—	APB	—	15 ... 145	29 ... 145	0.3	V096633A-X0020	V10034-K01	All Bases
5/3	Pilot/Pilot	—	COE	—	15 ... 145	29 ... 145	0.3	V096733A-X0020	V10034-K02	All Bases
5/3	Pilot/Pilot	—	COP	—	15 ... 145	29 ... 145	0.3	V096833A-X0020	V10034-K03	All Bases

APB = All Ports Blocked, COE = Center Open Exhaust, COP = Center Open Pressure * Insert voltage code from table below. Order connector plugs separately.
 Single = single station sub-base. Mod. = modular sub-base

Voltage codes & spare coils

Voltage	Code	Power	Spare coil part no.
6 V d.c.	1	1.5 W	V10025-A11
12 V d.c.	2	1.7 W	V10025-A12
24 V d.c.	3	1.7 W	V10025-A13
12 V 50/60 Hz	1	4.1/2,9 V A	V10025-A11
24 V 50/60 Hz	4	4.1/2,9 V A	V10025-A14
48 V 50/60 Hz	6	4.1/2,9 V A	V10025-A16
110 V 50/60 Hz	8	3.5/2,5 V A	V10025-A18
240 V 50/60 Hz	9	3.5/2,5 V A	V10025-A19

Electrical details for wireway

Voltage	Features	Indicator	Code	Color
12 ... 24 V d.c.	Surge suppression	LED (red)	3	Green
24 V d.c.	Surge suppression, diagnostic with power saver	See right	3	Red
24 ... 48 V 50/60Hz	Surge suppression	Neon	6	Blue
110 ... 120 V 50/60Hz	Surge suppression	Neon	8	Yellow
220 ... 240 V 50/60Hz	Surge suppression	Neon	9	Orange

Electrical details for solenoid operators

Voltage tolerances:	±10%
Rating:	100% E.D.
Inlet orifice:	0.03"
Electrical connection:	DIN 43650 Table "C"
Protection class:	IP65 (DIN 40050)

Diagnostic with power saver

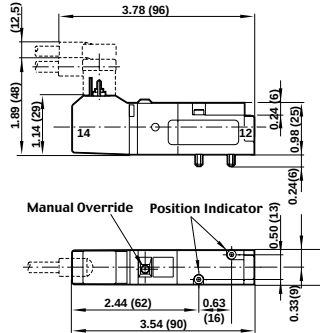
Voltage	24V d.c.
Suppression:	Flywheel diode
Diagnostic indication:	Red LED correct armature movement
	Orange LED failed armature movement
Power saving:	50% after armature has moved

Nugget 40 Series Valves

Subbase Mounted V09 Valves

Dimensions in inches (mm)

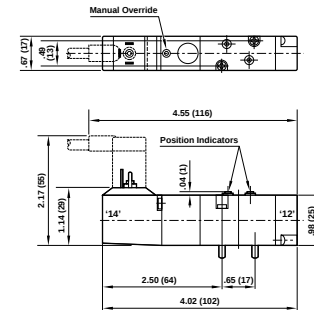
3/2 Single solenoid valves
V0954**R



*Manual override

**2 fixing screws M2,5 x 0,45

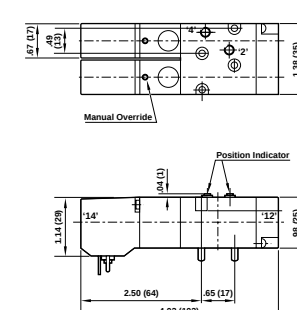
5/2 Single solenoid valves
V096516A



*Manual override

**Position indicators (optional)

5/2 Double solenoid valves
V096511P

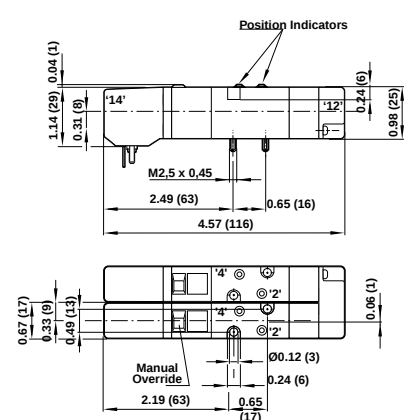


*Manual override

**Position indicators (optional)

Note: two stations needed

5/3 Double solenoid valves
V096***P



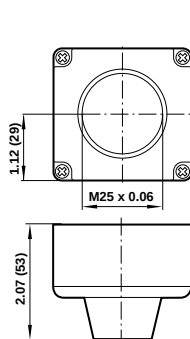
*Manual override

**Position indicators (optional)

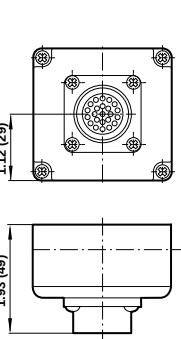
Note: two stations needed

Modular sub-base with wireway for V09 valves

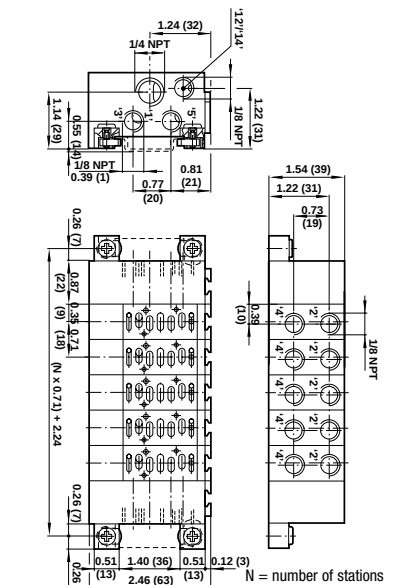
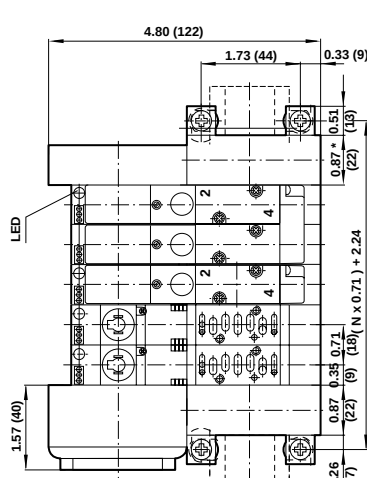
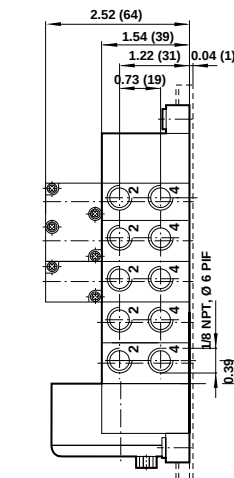
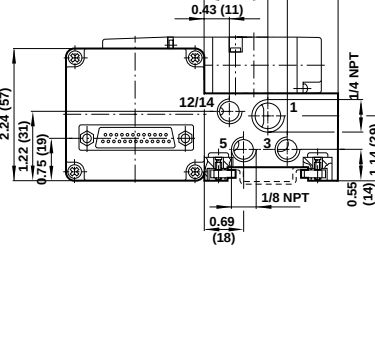
IP 65 conduit entry



IP 65 round connector



IP 40 D sub-connector



Modular sub-base assemblies

Model number: V09RAX**--XXXX

Type: N1/8 modular sub-base assemblies for 4, 6, 8, 10 and 12 valves.

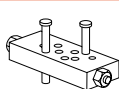
Model number: V09LAX**--XXXX

Type: Ø 1/4 modular sub-base assemblies for 4, 6, 8, 10 and 12 valves.

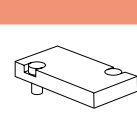
** = 04 to 12

Accessories

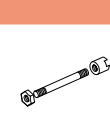
Sandwich plate
flow regulator



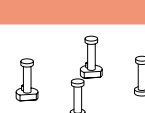
Blanking plate



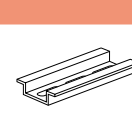
Optional tie rod kit



DIN rail mounting kits



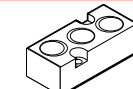
DIN rail



Blanking plug



Intermediate supply/
exhaust plate



V095516A-Q1200

V095516A-Q1100

V085516A-Q0302 to 16

V10920-K01

V10009-C00 3'

V10511-K01

V095516A-Q160N

V095516A-Q160G

Nugget 40 Series Valves

Subbase Mounted V09 Valves

D Sub-Connector with Cable

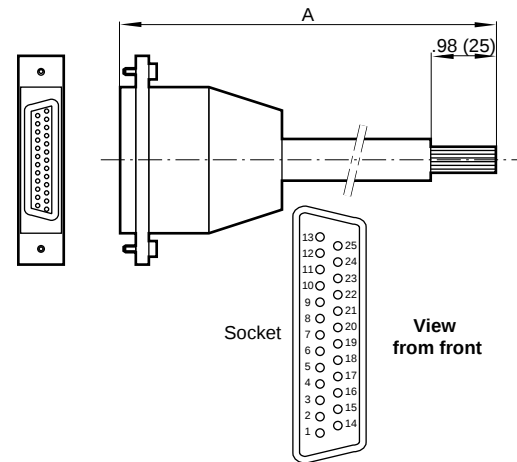
Type: 25 pin IP 40 D Sub-connector.
Cable size 20 AWG (.52 mm²)

Model	A	Weight (Kg)
V10020-E01	3' (1m)	0.61 lbs. (.28)
V10020-E03	10' (3m)	1.50 lbs. (.68)
V10020-E05	16' (5m)	2.38 (1.08)

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	Common, -negative	Yellow/blue
7	Solenoid 7	Violet	20	Common, -negative	White/blue
8	Solenoid 8	Orange	21	Common, -negative	Blue/black
9	Solenoid 9	Pink	22	Common, -negative	Orange/blue
10	Solenoid 10	Turquoise	23	Common, -ground	Yellow/green
11	Solenoid 11	Grey	24	Solenoid 19	White/green
12	Solenoid 12	Red/blue	25	Solenoid 20	Orange/green
13	Solenoid 13	Black			

Solenoid No. 1 is nearest to the socket

IP 40 D Sub-Connector



Round Connector with Cable

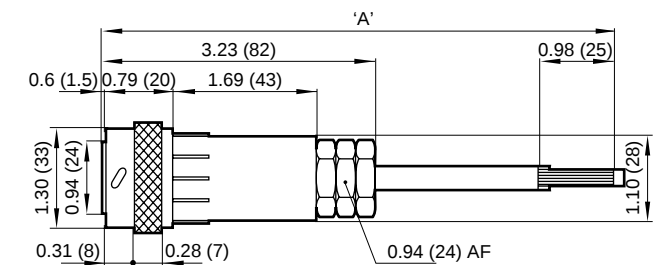
Type: 23 pin IP65 'Round' connector.
Cable size 20 AWG (.52 mm²)

Model	A	Weight (Kg)
V10021-E01	3' (1m)	.75 (.34)
V10021-E03	10' (3m)	1.63 (.74)
V10021-E05	16' (5m)	2.51 (1.14)
V10021-E08	26' (8m)	4.67 (2.12)
V10021-E10	32' (10m)	5.89 (2.67)

Pin no.	Socket	Plug	Pin no.	Socket	Plug
A	Solenoid 1	Red	N	Solenoid 13	Black
B	Solenoid 2	Blue	P	Solenoid 14	Green/red
C	Solenoid 3	Green	R	Solenoid 15	Yellow/red
D	Solenoid 4	Yellow	S	Solenoid 16	White/red
E	Solenoid 5	White	T	Solenoid 17	Red/black
F	Solenoid 6	Brown	U	Solenoid 18	Red/brown
G	Solenoid 7	Violet	V	Common, -negative	Yellow/blue
H	Solenoid 8	Orange	W	Common, -negative	White/blue
J	Solenoid 9	Pink	X	Common, -negative	Blue/black
K	Solenoid 10	Turquoise	Y	Common, -negative	Orange/blue
L	Solenoid 11	Grey	Z	Common, -ground	Yellow/green
M	Solenoid 12	Red/blue			

Solenoid No. 1 is nearest to the connector on valve manifold

IP65 'Round' Connector



Dimensions in inches (mm)