

Valves

# 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

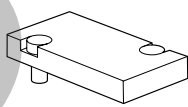
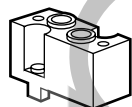
Voltage	Codes	Power inrush/hold	Coil part no.
6V d.c.	1	1.5 W	V10025-A11
12V d.c.	2	1.7 W	V10025-A12
24V d.c.	3	1.7 W	V10025-A13
12V 50/60Hz	1	4.1/2.9 VA	V10025-A11
24V 50/60Hz	4	4.1/2.9 VA	V10025-A14
48V 50/60Hz	6	4.1/2.9 VA	V10025-A16
110V 50/60Hz	8	3.5/2.5 VA	V10025-A18
240V 50/60Hz	9	3.5/2.5 VA	V10025-A19

## 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

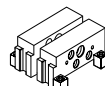


V085516A-Q0416, 1/4" PIF	V085516A-Q1100
V085516A-Q0404, Ø 4 mm	
V085516A-Q0406, Ø 6 mm	

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

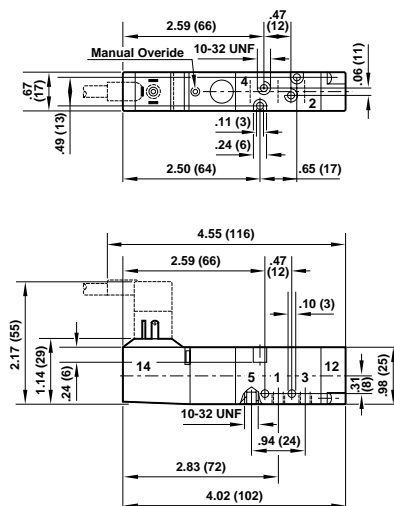
\* Insert valve manual override code -  
2 = turn & lock, 3 = push only

# Nugget 40 Series Valves

## Inline V08 Valves

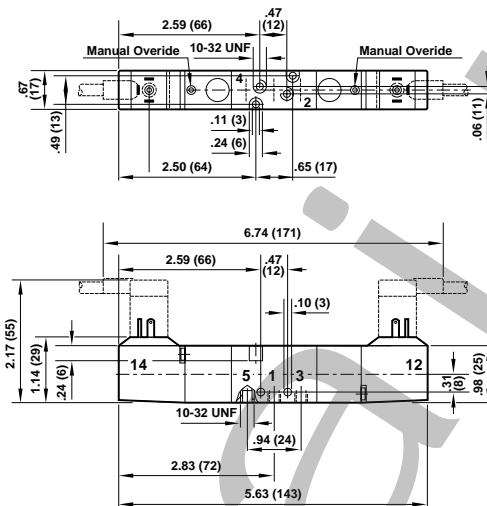
Dimensions in inches (mm)

V08N516A Models  
5/2 Single solenoid valves



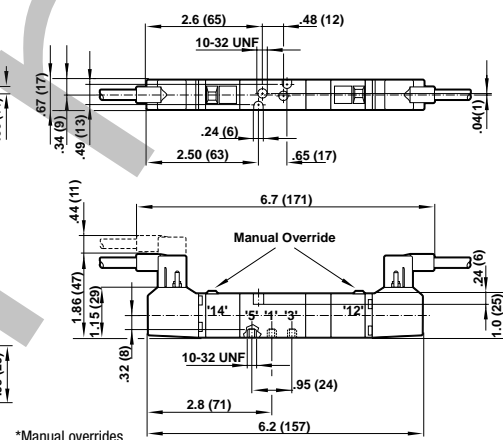
\*Manual override

V08N511A Models  
5/2 Double solenoid valves



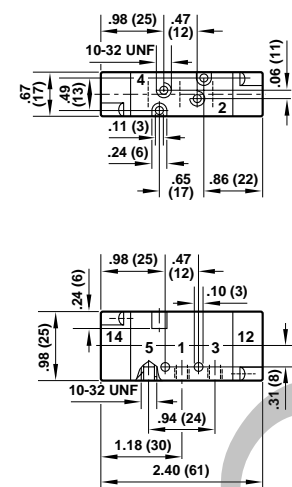
\*Manual overrides

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

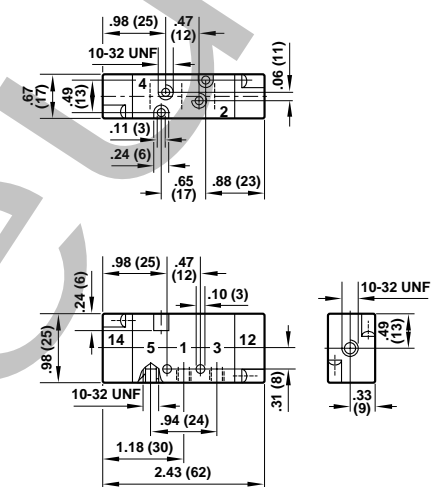


\*Manual overrides

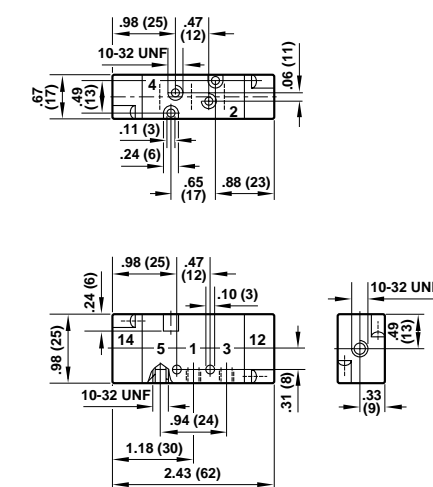
V08N536A-X0130 Model  
5/2 Single pilot valves



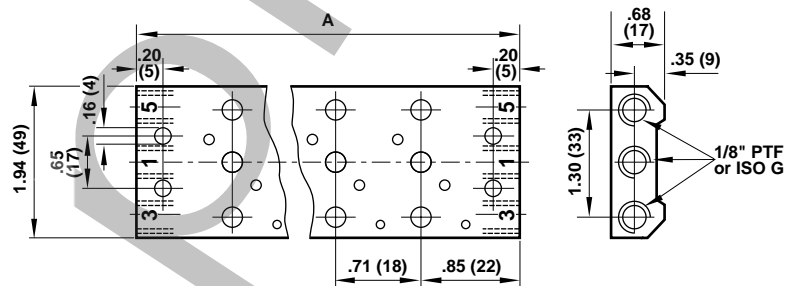
V08N533A-X0020 and V08N533A-X0060  
5/2 Double pilot valves



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



Fixed length manifold  
V10026-G\*\*



No. of stations	Model		
	A	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.

Valves

# 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

VAL-160



Valves

# 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 mm<sup>2</sup>)

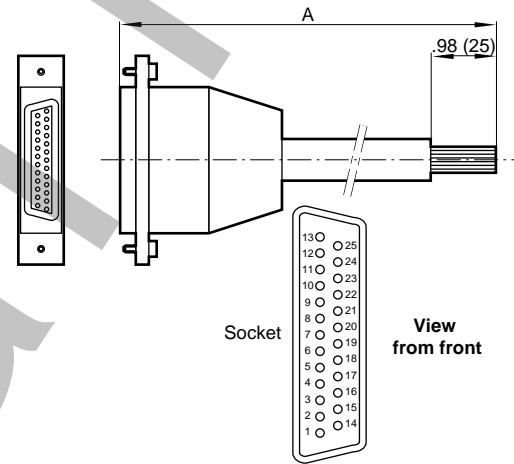
Model	A	Weight (Kg)
V10020-E01	3' (1m)	0.61 lbs. (.28)
V10020-E03	10' (3m)	1.50 lbs. (.68)
V10020-E05	16' (5m)	2.38 (1.08)

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 mm<sup>2</sup>)

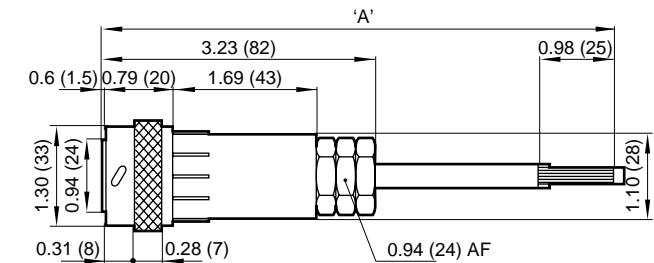
Model	A	Weight (Kg)
V10021-E01	3' (1m)	.75 (.34)
V10021-E03	10' (3m)	1.63 (.74)
V10021-E05	16' (5m)	2.51 (1.14)
V10021-E08	26' (8m)	4.67 (2.12)
V10021-E10	32' (10m)	5.89 (2.67)

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)