

Nugget 500 Series Valves

5/2 and 5/3 directional control spool valves

Long lasting spool design

High flow compact valves

Four mounting styles: inline, fixed length manifolds, single subbase, or subbase valves attached to manifold subbases

Wide range of operators available

Two functional types: available in 5/2, and 5/3 configurations

Technical Data

Medium:

Filtered, lubricated or non-lubricated, compressed air or vacuum

Operation:

Spool valve air pilot actuated

Mounting:

Inline, fixed length manifold, single subbase, and manifold subbase

Port Sizes:

3/8", 1/2", or 3/4", ISO G or PTF

Operating Pressure:

Maximum 150 psig (10.3 bar).

Flow Characteristics:

Port	Cv	l/min	scfm
3/8" Inline	4.0	4250	150
1/2" Inline	5.0	5150	180
3/4" Inline	5.6	6000	210
1/2" Subbase	4.7	5300	190

Operating Temperature

Solenoid Operated Valves:

-20° to 120°F (-29° to 50°C)

Air Operated Valves:

-20° to 160°F (-29° to 71°C)

*Consult our Technical Service for use below 36°F (2°C)

Materials

Valve Body: Aluminum

Spool: Aluminum

Elastomers: Nitrile

Solenoid Operator Base: PPS plastic

Operator Housing: Zinc

Speed Control Materials

Body: Zinc

Adjusting Screw: Brass

Elastomers: Nitrile

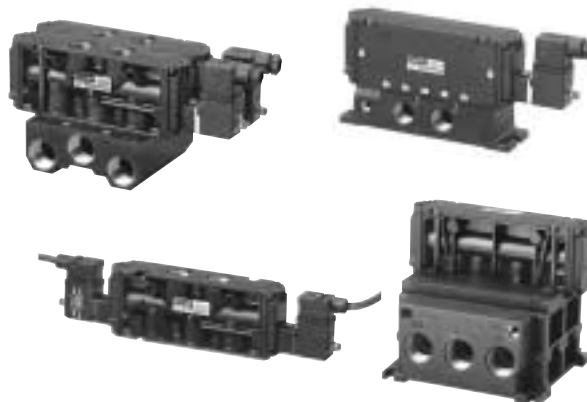
Subbase Materials

Fixed Length Manifolds: Aluminum

Single and Manifold Subbase: Aluminum

End Plate: Zinc

Elastomers: Nitrile



Inline Valves

Description	Type	Port Size	Part Number	Pilot Pressure psig (bar)	Weight lbs. (kg)	Repair Kit
Single Solenoid	5/2	1/2" PTF	MN01CGA35-AJJA	40 - 150 (2.8 - 10.3)	1.42 (.65)	54677-50
Single Solenoid	5/2	1/2" PTF	MN02CGA35-AKJA	40 - 150 (2.8 - 10.3)	1.42 (.65)	54677-51
Double Solenoid	5/2	1/2" PTF	MN01CGA25-AJJA	20 - 150 (1.4 - 10.3)	1.71 (.78)	54677-50
Double Solenoid	5/2	1/2" PTF	MN02CGA25-AJJA	20 - 150 (1.4 - 10.3)	1.71 (.78)	54677-51
Double Solenoid	5/2	1/2" PTF	MN01CGA25-BJJA	30 - 150 (2.1 - 10.3)	1.99 (.90)	54677-50
Double Solenoid	5/2	1/2" PTF	MN02CGA25-BJJA	30 - 150 (2.1 - 10.3)	1.99 (.90)	54677-51
Double Solenoid	5/3	1/2" PTF	MN03CGA25-FJJA	40 - 150 (2.8 - 10.3)	1.99 (.90)	54677-52
Double Solenoid	5/3	1/2" PTF	MN04CGA25-FJJA	40 - 150 (2.8 - 10.3)	1.99 (.90)	54677-53
Double Solenoid	5/3	1/2" PTF	MN05CGA25-FJJA	20 - 150 (1.4 - 10.3)	1.99 (.90)	54677-54
Double Solenoid	5/3	1/2" PTF	MN06CGA25-FJJA	20 - 150 (1.4 - 10.3)	1.99 (.90)	54677-55
Single Air	5/2	1/2" PTF	MN01CGA33-A000	40 - 150 (2.8 - 10.3)	1.16 (.53)	54677-50
Single Air	5/2	1/2" PTF	MN02CGA33-A000	40 - 150 (2.8 - 10.3)	1.16 (.53)	54677-51
Double Air	5/2	1/2" PTF	MN01CGA23-A000	20 - 150 (1.4 - 10.3)	1.16 (.53)	54677-50
Double Air	5/2	1/2" PTF	MN02CGA23-A000	20 - 150 (1.4 - 10.3)	1.16 (.53)	54677-51
Double Air	5/2	1/2" PTF	MN01CGA23-B000	30 - 150 (2.1 - 10.3)	1.42 (.65)	54677-50
Double Air	5/2	1/2" PTF	MN02CGA23-B000	30 - 150 (2.1 - 10.3)	1.42 (.65)	54677-51
Double Air	5/3	1/2" PTF	MN03CGA23-F000	40 - 150 (2.8 - 10.3)	1.42 (.65)	54677-52
Double Air	5/3	1/2" PTF	MN04CGA23-F000	40 - 150 (2.8 - 10.3)	1.42 (.65)	54677-53
Double Air	5/3	1/2" PTF	MN05CGA23-F000	20 - 150 (1.4 - 10.3)	1.42 (.65)	54677-54
Double Air	5/3	1/2" PTF	MN06CGA23-F000	20 - 150 (1.4 - 10.3)	1.42 (.65)	54677-55

Valves with Manifold Subbases

Description	Type	Port Size	Part Number	Pilot Pressure psig (bar)	Weight lbs. (kg)	Repair Kit
Single Solenoid	5/2	1/2" PTF	MN01GGA35-AJJA	40 - 150 (2.8 - 10.3)	2.37 (1.08)	54677-50
Single Solenoid	5/2	1/2" PTF	MN02GGA35-AKJA	40 - 150 (2.8 - 10.3)	2.37 (1.08)	54677-51
Double Solenoid	5/2	1/2" PTF	MN01GGA25-AJJA	20 - 150 (1.4 - 10.3)	2.64 (1.20)	54677-50
Double Solenoid	5/2	1/2" PTF	MN02GGA25-AJJA	20 - 150 (1.4 - 10.3)	2.64 (1.20)	54677-51
Double Solenoid	5/2	1/2" PTF	MN01GGA25-BJJA	30 - 150 (2.1 - 10.3)	2.94 (1.34)	54677-50
Double Solenoid	5/2	1/2" PTF	MN02GGA25-BJJA	30 - 150 (2.1 - 10.3)	2.94 (1.34)	54677-51
Double Solenoid	5/3	1/2" PTF	MN03GGA25-FJJA	40 - 150 (2.8 - 10.3)	2.94 (1.34)	54677-52
Double Solenoid	5/3	1/2" PTF	MN04GGA25-FJJA	40 - 150 (2.8 - 10.3)	2.94 (1.34)	54677-53
Double Solenoid	5/3	1/2" PTF	MN05GGA25-FJJA	20 - 150 (1.4 - 10.3)	2.94 (1.34)	54677-54
Double Solenoid	5/3	1/2" PTF	MN06GGA25-FJJA	20 - 150 (1.4 - 10.3)	2.94 (1.34)	54677-55
Single Air	5/2	1/2" PTF	MN01GGA33-A000	40 - 150 (2.8 - 10.3)	2.09 (.95)	54677-50
Single Air	5/2	1/2" PTF	MN02GGA33-A000	40 - 150 (2.8 - 10.3)	2.09 (.95)	54677-51
Double Air	5/2	1/2" PTF	MN01GGA23-A000	20 - 150 (1.4 - 10.3)	2.09 (.95)	54677-50
Double Air	5/2	1/2" PTF	MN02GGA23-A000	20 - 150 (1.4 - 10.3)	2.09 (.95)	54677-51
Double Air	5/2	1/2" PTF	MN01GGA23-B000	30 - 150 (2.1 - 10.3)	2.37 (1.08)	54677-50
Double Air	5/2	1/2" PTF	MN02GGA23-B000	30 - 150 (2.1 - 10.3)	2.37 (1.08)	54677-51
Double Air	5/3	1/2" PTF	MN03GGA23-F000	40 - 150 (2.8 - 10.3)	2.37 (1.08)	54677-52
Double Air	5/3	1/2" PTF	MN04GGA23-F000	40 - 150 (2.8 - 10.3)	2.37 (1.08)	54677-53
Double Air	5/3	1/2" PTF	MN05GGA23-F000	20 - 150 (1.4 - 10.3)	2.37 (1.08)	54677-54
Double Air	5/3	1/2" PTF	MN06GGA23-F000	20 - 150 (1.4 - 10.3)	2.37 (1.08)	54677-55

Valves on a Single Subbase

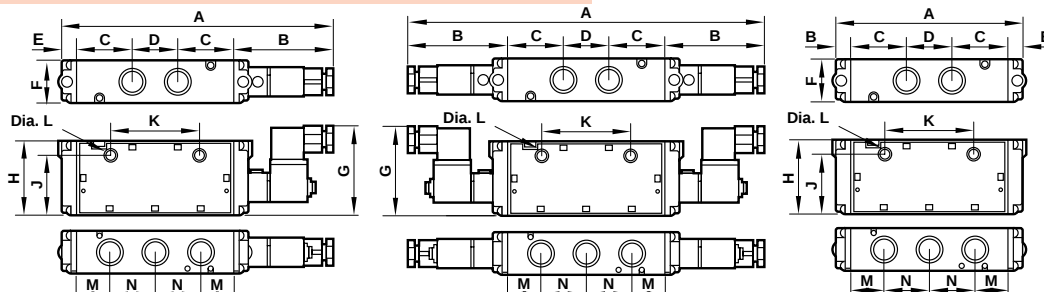
Nugget 500 Series Valves

5/2 and 5/3 directional control spool valves

Dimensions in inches (mm)

Description	Type	Port Size	Part Number	Pilot Pressure psig (bar)	Weight lbs. (kg)	Repair Kit
Single Solenoid	5/2	1/2" PTF	MN01EGA35-AJJA	40 - 150 (2.8 - 10.3)	2.08 (.95)	54677-50
Single Solenoid	5/2	1/2" PTF	MN02EGA35-AKJA	40 - 150 (2.8 - 10.3)	2.08 (.95)	54677-51
Double Solenoid	5/2	1/2" PTF	MN01EGA25-AJJA	20 - 150 (1.4 - 10.3)	2.33 (1.06)	54677-50
Double Solenoid	5/2	1/2" PTF	MN02EGA25-AJJA	20 - 150 (1.4 - 10.3)	2.33 (1.06)	54677-51
Double Solenoid	5/2	1/2" PTF	MN01EGA25-BJJA	30 - 150 (2.1 - 10.3)	2.62 (1.19)	54677-50
Double Solenoid	5/2	1/2" PTF	MN02EGA25-BJJA	30 - 150 (2.1 - 10.3)	2.62 (1.19)	54677-51
Double Solenoid	5/3	1/2" PTF	MN03EGA25-FJJA	40 - 150 (2.8 - 10.3)	2.62 (1.19)	54677-52
Double Solenoid	5/3	1/2" PTF	MN04EGA25-FJJA	40 - 150 (2.8 - 10.3)	2.62 (1.19)	54677-53
Double Solenoid	5/3	1/2" PTF	MN05EGA25-FJJA	20 - 150 (1.4 - 10.3)	2.62 (1.19)	54677-54
Double Solenoid	5/3	1/2" PTF	MN06EGA25-FJJA	20 - 150 (1.4 - 10.3)	2.62 (1.19)	54677-55
Single Air	5/2	1/2" PTF	MN01EGA33-A000	40 - 150 (2.8 - 10.3)	1.81 (.82)	54677-50
Single Air	5/2	1/2" PTF	MN02EGA33-A000	40 - 150 (2.8 - 10.3)	1.81 (.82)	54677-51
Double Air	5/2	1/2" PTF	MN01EGA23-A000	20 - 150 (1.4 - 10.3)	1.81 (.82)	54677-50
Double Air	5/2	1/2" PTF	MN02EGA23-A000	20 - 150 (1.4 - 10.3)	1.81 (.82)	54677-51
Double Air	5/2	1/2" PTF	MN01EGA23-B000	30 - 150 (2.1 - 10.3)	2.09 (.95)	54677-50
Double Air	5/2	1/2" PTF	MN02EGA23-B000	30 - 150 (2.1 - 10.3)	2.09 (.95)	54677-51
Double Air	5/3	1/2" PTF	MN03EGA23-F000	40 - 150 (2.8 - 10.3)	2.09 (.95)	54677-52
Double Air	5/3	1/2" PTF	MN04EGA23-F000	40 - 150 (2.8 - 10.3)	2.09 (.95)	54677-53
Double Air	5/3	1/2" PTF	MN05EGA23-F000	20 - 150 (1.4 - 10.3)	2.09 (.95)	54677-54
Double Air	5/3	1/2" PTF	MN06EGA23-F000	20 - 150 (1.4 - 10.3)	2.09 (.95)	54677-55

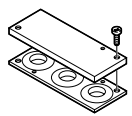
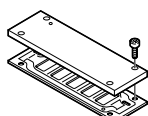
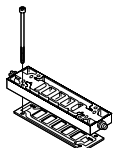
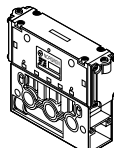
Inline Valve Dimensions

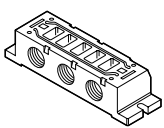
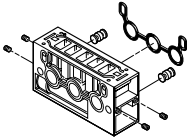


Note: 4 mm hex key drive required for mounting screw removal/replacement

Valve	A	B	C	D	E	F	G	H	J	K	L	M	N
Solenoid Pilot Operator — 5/2 Nondetent Single Solenoid*	9.46 (240)	3.53 (90)	1.91 (49)	1.48 (38)	0.63 (16)	1.44 (37)	2.71 (69)	2.44 (62)	1.94 (49)	3.00 (76)	0.27 (7)	1.17 (30)	1.48 (38)
Double Solenoid	12.36 (314)	3.53 (90)	1.91 (49)	1.48 (38)	—	1.44 (37)	2.71 (69)	2.44 (62)	1.94 (49)	3.00 (76)	0.27 (7)	1.17 (30)	1.48 (38)
Solenoid Pilot Operator — 5/2 Detent or 5/3 Spring Centered Double Solenoid	13.30 (338)	4.00 (102)	1.91 (49)	1.48 (38)	—	1.44 (37)	2.71 (69)	2.44 (62)	1.94 (49)	3.00 (76)	0.27 (7)	1.17 (30)	1.48 (38)
Air Pilot Operator — 5/2 Nondetent Single Air*	6.56 (167)	0.63 (16)	1.91 (49)	1.48 (38)	0.63 (16)	1.44 (37)	—	2.44 (62)	1.94 (49)	3.00 (76)	0.27 (7)	1.17 (30)	1.48 (38)
Double Air	6.56 (7)	0.63 (16)	1.91 (49)	1.48 (38)	—	1.44 (37)	—	2.44 (62)	1.94 (49)	3.00 (76)	0.27 (7)	1.17 (30)	1.48 (38)
Air Pilot Operator — 5/2 Detent or 5/3 Spring Centered Double Air	7.50 (191)	1.10 (28)	1.91 (49)	1.48 (38)	—	1.44 (37)	—	2.44 (62)	1.94 (49)	3.00 (76)	0.27 (7)	1.17 (30)	1.48 (38)

*With air-assisted spring return, spring return or integral air return

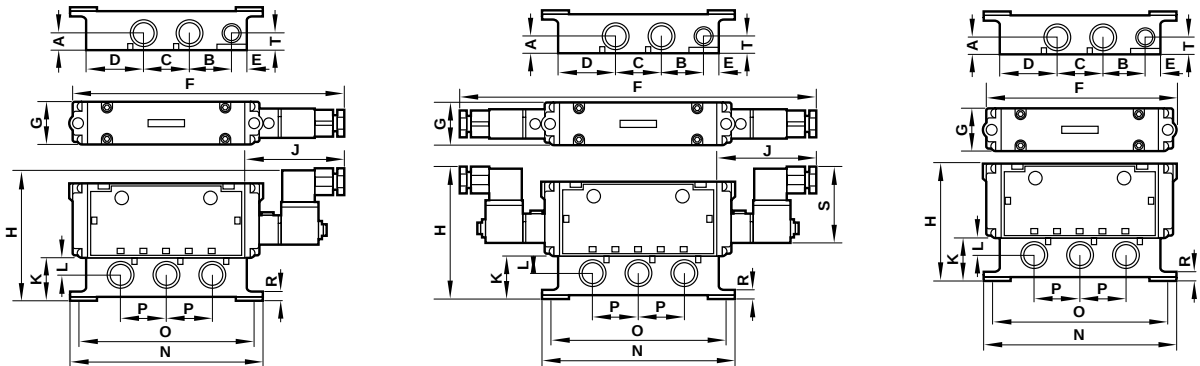
Fixed length blanking kit	Single & manifold subbase blanking kit	Dual sandwich speed control kit	Intermediate supply/exhaust block	End plate kit
				
54689-50	54689-51	13336-60	1/2" PTF 54693-50 1/2" ISO G 54693-51	13338-50
Single subbase for subbase valve	Manifolding subbase for subbase valve	Isolating plug kit		

		
3/8 PTF 13340-70	3/8 PTF 13335-50	54676-50
3/8 ISO G 13340-70	3/8 ISO G 13335-51	
1/2 PTF 13340-72	1/2 PTF 13335-52	
1/2 ISO G 13340-73	1/2 ISO G 13335-53	

Nugget 500 Series Valves

5/2 and 5/3 directional control spool valves

Subbase Valve on Single Subbase Dimensions

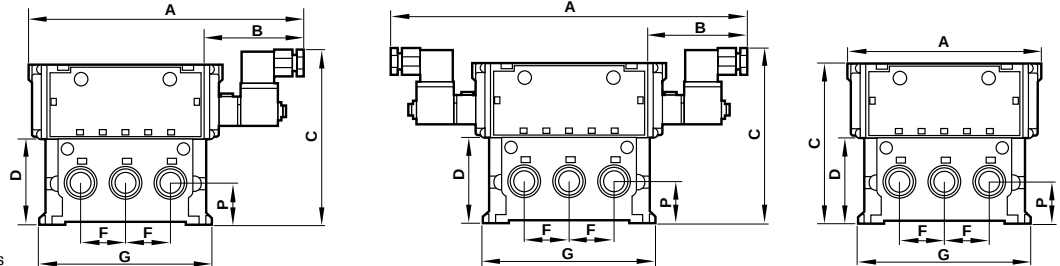


Note: 4 mm hex key drive required for mounting screws

Valve	A	B	C	D	E	F	G	H	J	K	L	N	O	P	R	S	T
Solenoid Pilot Operator — 5/2 Nondetent Single Solenoid*	0.63 (16)	1.94 (49)	1.48 (38)	1.46 (37)	0.48 (12)	9.46 (240)	1.80 (46)	4.15 (105)	3.53 (90)	1.38 (35)	0.63 (16)	6.50 (1.65)	6.05 (154)	1.48 (38)	0.25 (6)	2.71 (69)	0.63 (16)
Double Solenoid	0.63 (16)	1.94 (49)	1.48 (38)	1.46 (37)	0.48 (12)	10.40 (264)	1.80 (46)	4.15 (105)	4.00 (102)	1.38 (35)	0.63 (16)	6.50 (1.65)	6.05 (154)	1.48 (38)	0.25 (6)	2.71 (69)	0.63 (16)
Solenoid Pilot Operator — 5/2 Detent or 5/3 Spring Centered Double Solenoid	0.63 (16)	1.94 (49)	1.48 (38)	1.46 (37)	0.48 (12)	12.36 (314)	1.80 (46)	4.15 (105)	3.53 (90)	1.38 (35)	0.63 (16)	6.50 (1.65)	6.05 (154)	1.48 (38)	0.25 (6)	2.71 (69)	0.63 (16)
Air Pilot Operator — 5/2 Nondetent Single Air*	0.63 (16)	1.94 (49)	1.48 (38)	1.46 (37)	0.48 (12)	6.56 (167)	1.80 (46)	3.89 (99)	—	1.38 (35)	0.63 (16)	6.50 (1.65)	6.05 (154)	1.48 (38)	0.25 (6)	—	0.63 (16)
Double Air	0.63 (16)	1.94 (49)	1.48 (38)	1.46 (37)	0.48 (12)	6.56 (167)	1.80 (46)	3.89 (99)	—	1.38 (35)	0.63 (16)	6.50 (1.65)	6.05 (154)	1.48 (38)	0.25 (6)	—	0.63 (16)
Air Pilot Operator — 5/2 Detent or 5/3 Spring Centered Double Air	0.63 (16)	1.94 (49)	1.48 (38)	1.46 (37)	0.48 (12)	7.50 (191)	1.80 (46)	3.89 (99)	—	1.38 (35)	0.63 (16)	6.50 (1.65)	6.05 (154)	1.48 (38)	0.25 (6)	—	0.63 (16)

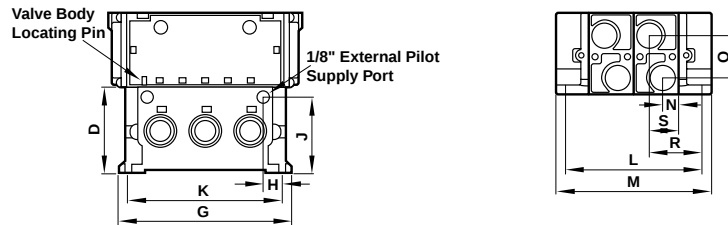
*With air-assisted spring return, spring return or integral air return.

Subbase Valves on Modular Manifold Dimensions



Note: 4 mm hex key drive required for mounting screws

Manifold Subbase Assembly



Dimensions in inches (mm)

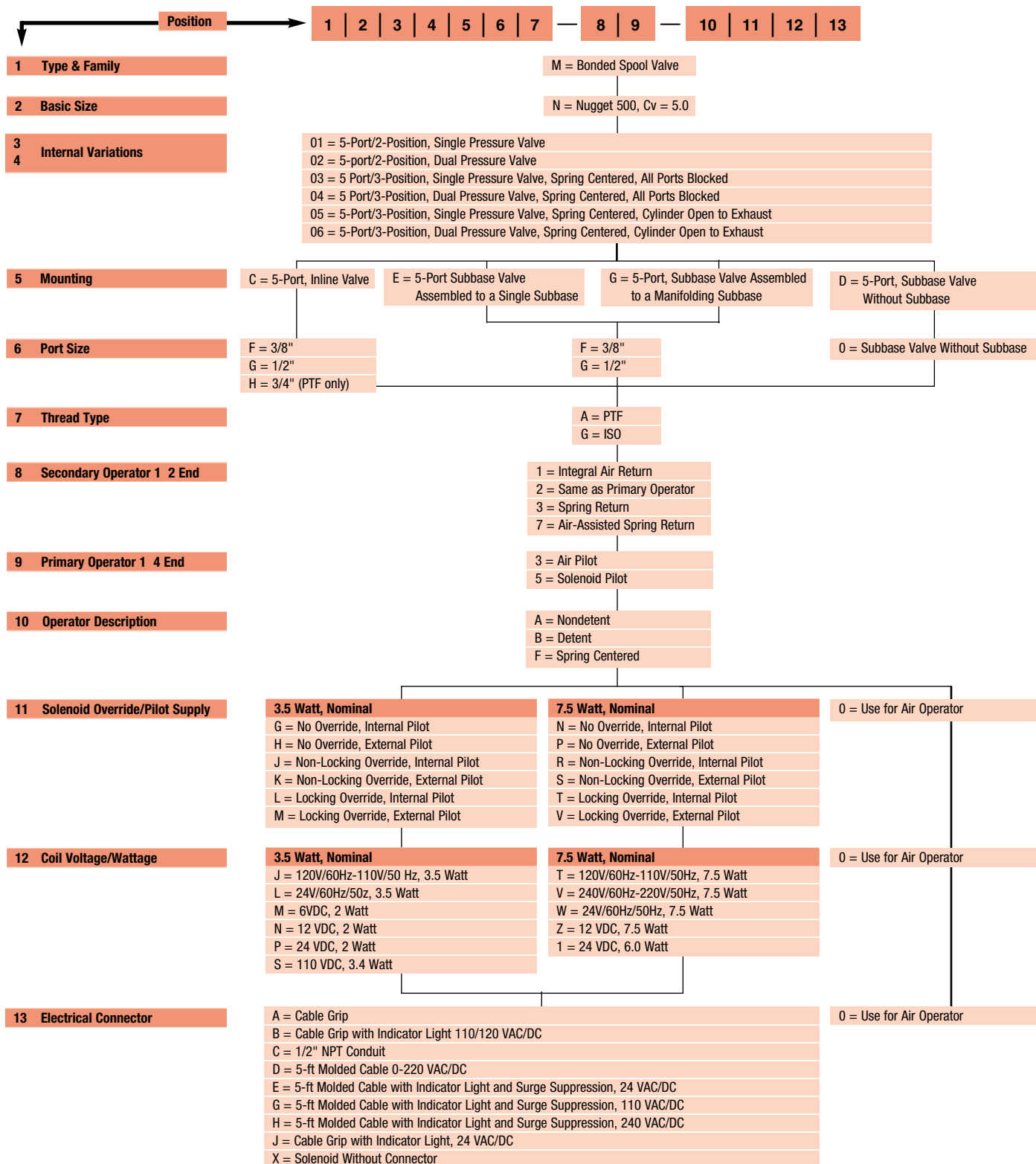
Valve	A	B	C	D	F	G	H	J	K	L**	M**	N	O	P	R	S
Solenoid Pilot Operator — 5/2 Nondetent Single Solenoid*	9.46 (240)	3.53 (90)	5.62 (143)	2.85 (72)	1.48 (38)	5.76 (146)	0.97 (25)	2.48 (63)	5.13 (130)	4.58 (116)	5.14 (131)	0.53 (14)	1.44 (37)	1.35 (34)	0.97 (25)	1.82 (46)
Double Solenoid	12.36 (314)	3.53 (90)	5.62 (143)	2.85 (72)	1.48 (38)	5.76 (146)	0.97 (25)	2.48 (63)	5.13 (130)	4.58 (116)	5.14 (131)	0.53 (14)	1.44 (37)	1.44 (34)	1.35 (25)	1.82 (46)
Solenoid Pilot Operator — 5/2 Detent or 5/3 Spring Centered Double Solenoid	13.30 (338)	4.00 (102)	5.62 (143)	2.85 (72)	1.48 (38)	5.76 (146)	0.97 (25)	2.48 (63)	5.13 (130)	4.58 (116)	5.14 (131)	0.53 (14)	1.44 (37)	1.35 (34)	0.97 (25)	1.82 (46)
Air Pilot Operator — 5/2 Nondetent Single Air*	6.56 (167)	—	5.36 (136)	2.85 (72)	1.48 (38)	5.76 (146)	0.97 (25)	2.48 (63)	5.13 (130)	4.58 (116)	5.14 (131)	0.53 (14)	1.44 (37)	1.35 (34)	0.97 (25)	1.82 (46)
Double Air	6.56 (167)	—	5.36 (136)	2.85 (72)	1.48 (38)	5.76 (146)	0.97 (25)	2.48 (63)	5.13 (130)	4.58 (116)	5.14 (131)	0.53 (14)	1.44 (37)	1.35 (34)	0.97 (25)	1.82 (46)
Air Pilot Operator — 5/2 Detent or 5/3 Spring Centered Double Air	7.50 (191)	—	5.36 (136)	2.85 (72)	1.48 (38)	5.76 (146)	0.97 (25)	2.48 (63)	5.13 (130)	4.58 (116)	5.14 (131)	0.53 (14)	1.44 (37)	1.35 (34)	0.97 (25)	1.82 (46)

*With air-assisted spring return, spring return or integral air return.

**Dimensions shown are for two end plates and two manifolding subbases. Add 1.50" (38 mm) for each additional manifolding subbase.

Nugget 500 Series Valves

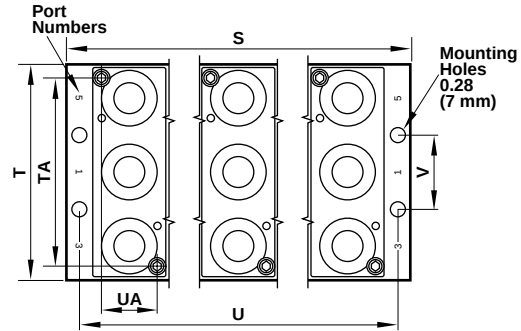
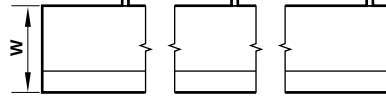
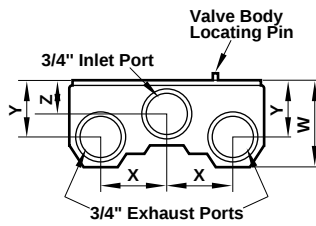
5/2 and 5/3 directional control spool valves



Nugget 500 Series Valves

5/2 and 5/3 directional control spool valves

Dimensions in inches (mm)



Manifold Kits*		Fixed Length Manifold Kits and Dimensions											
Ports		No. of Stations	S	T	U	V	W	X	Y	Z	TA	UA	
3/4 NPT	3/4 ISO G												
13342-60	13342-70	2	4.00 (102)	4.28 (109)	3.50 (89)	1.50 (38)	1.78 (45)	1.48 (38)	1.13 (29)	0.65 (17)	3.75 (95)	1.12 (28)	
13342-61	13342-71	3	5.50 (140)	4.28 (109)	5.00 (127)	1.50 (38)	1.78 (45)	1.48 (38)	1.13 (29)	0.65 (17)	3.75 (95)	1.12 (28)	
13342-62	13342-72	4	7.00 (178)	4.28 (109)	6.50 (165)	1.50 (38)	1.78 (45)	1.48 (38)	1.13 (29)	0.65 (17)	3.75 (95)	1.12 (28)	
13342-63	13342-73	5	8.50 (216)	4.28 (109)	8.00 (203)	1.50 (38)	1.78 (45)	1.48 (38)	1.13 (29)	0.65 (17)	3.75 (95)	1.12 (28)	
13342-64	13342-74	6	10.00 (254)	4.28 (109)	9.50 (241)	1.50 (38)	1.78 (45)	1.48 (38)	1.13 (29)	0.65 (17)	3.75 (95)	1.12 (28)	
13342-65	13342-75	8	13.00 (330)	4.28 (109)	12.50 (318)	1.50 (38)	1.78 (45)	1.48 (38)	1.13 (29)	0.65 (17)	3.75 (95)	1.12 (28)	
13342-66	13342-76	10	16.00 (406)	4.28 (109)	15.50 (394)	1.50 (38)	1.78 (45)	1.48 (38)	1.13 (29)	0.65 (17)	3.75 (95)	1.12 (28)	

* Kits include manifolds, seals, and valve attaching hardware.

Factory Installed Back Cover Plates for Valve Bodies

The Back Cover Plate ordered with the valve allows the valve to be used in wash-down environments such as food or medical processing. If a subbase valve is desired for wash-down environments, use only the single subbase.

For cover plate installed on an Inline Valve body specify with 54690-11 after the valve body number.

For cover plate installed on a Subbase Valve body specify with 54690-12 after the valve body number.

Pneu-Fit Push-in Tube Fittings

Push-in tube fittings are an excellent way to save valve connection time and simplify component replacement. See Norgren Fittings catalog APC-101 for a complete selection of push-in tube fittings, flexible tubing, tubing markers, and tube mounts.

Part Numbers for Replacement Solenoid Coils & Armature Bases

Solenoid Coils:		
24V/60Hz-24V/50Hz, 3.5W		54469-04
120V/60Hz-110V/50Hz, 3.5W		54469-03
6VDC, 2W		54469-05
12VDC, 2W		54469-01
24VDC, 2W		54469-02
110VDC, 3.4W		54469-06
240V/60Hz-220V/50Hz, 7.5W		54452-07
120V/60Hz-110V/50Hz, 7.5W		54452-01
24V/60Hz-24V/50Hz, 7.5W		54452-05
12VDC, 7.5W		54452-02
24VDC, 6W		54452-03
Solenoid Base and Armature:		
Without Override		
6 to 7.5 Watt		54462-01
2 to 3.5 Watt		54462-03
With locking override		
6 to 7.5 Watt		54462-02
2 to 3.5 Watt		54462-04
With non-locking override		
6 to 7.5 Watt		54462-09
2 to 3.5 Watt		54462-10

Part Numbers for Replacement Connectors

Cable grip connector	54934-01
Cable grip connector with indicator light	
110/120 VAC/DC	54934-02
24 VAC/DC	54934-08
1/2" NPT conduit	54934-05
Molded 5-ft cable connector 0-220 VAC/DC	54934-21
Molded 5-ft cable connector with indicator light and surge suppression	
24 VAC/DC	54934-30
110 VAC/DC	54934-35
240 VAC/DC	54934-37

Part Numbers for Repair Parts & Kits

Metal coil retaining ring	54453-01
Solenoid connector seal kit	54935-01
Solenoid exhaust port diffuser	54463-01
Solenoid exhaust port filter	
Ordered with valve	54463-50
Ordered separately	54463-51

Spool replacement kits:

Single pressure, 2-position	54677-50
Dual pressure, 2-position	54677-51
Single pressure, 3-position, APB*	54677-52
Dual pressure, 3-position, APB*	54677-53
Single pressure, 3-position, COE*	54677-54
Dual pressure, 3-position, COE*	54677-55

*In the center position

Seal kits

Inline valves	54692-50
Subbase valves	54692-51
Inline valve to fixed length manifold	54674-89
Subbase valve to subbase	54672-89
Manifolding subbase to end plates	54673-89
Manifold clamping pin (1) & set screws (2)	54574-50
Mounting screws valve to fixed length manifold or subbase	54580-60
Mounting screws valve and speed control to subbase	54580-61