

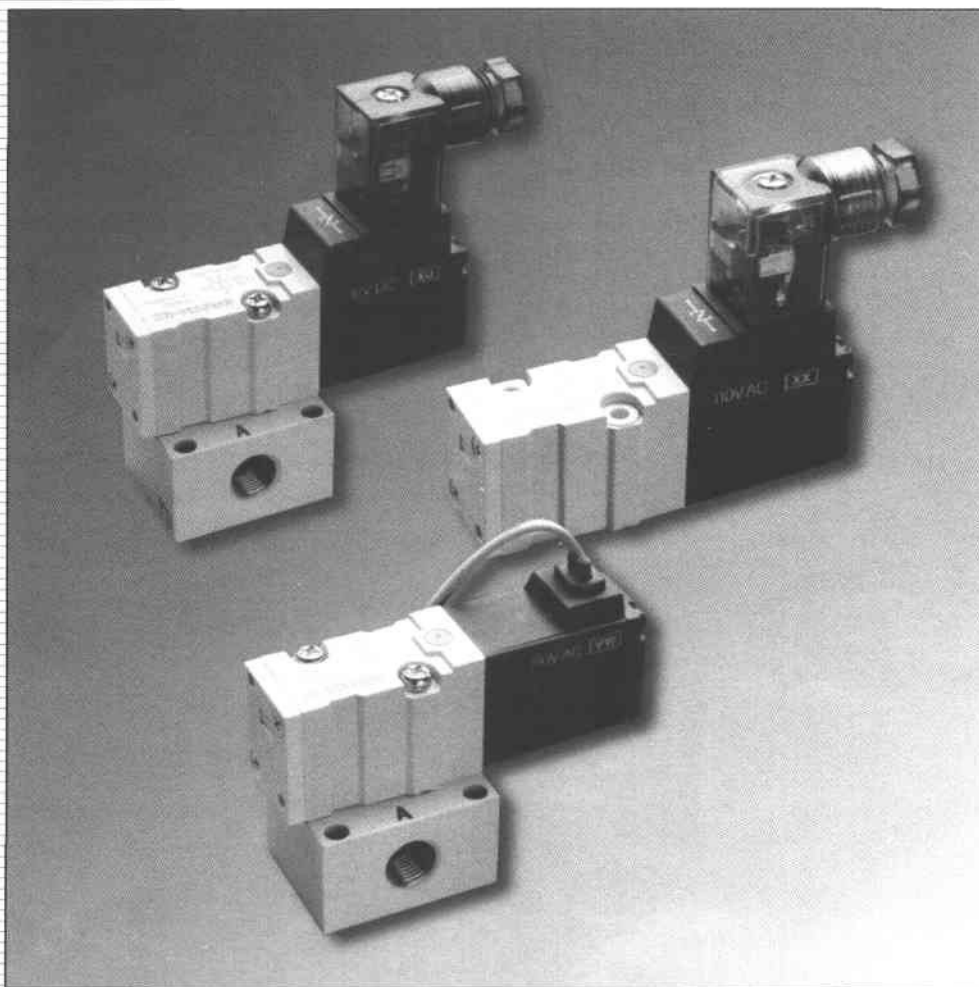


CAT. N217

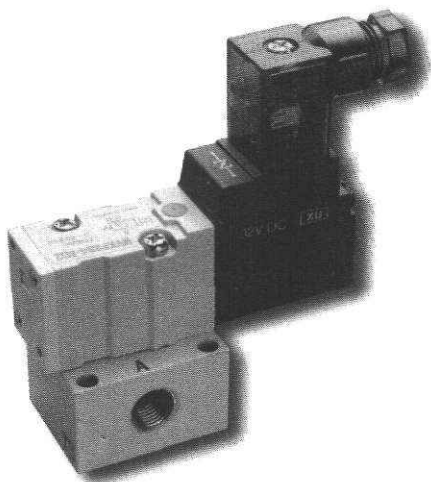
3 Way Direct Acting

NVKF 300 Series

Rubber Seal Solenoid Valve



Compact Size / Large Flow Capacity - Cv 0.25
Low Power Option Available
Vacuum Option Available
Base Mounted or Body Ported



- Large Flow Capacity - Cv 0.25
- Compact Size - width 0.73" × length 2.67"
- Low Power Consumption
4WDC (Standard model)
2WDC (Low wattage model)
- Vacuum Application Possible
- High Speed Response (10ms)

Model

Body Style	Model	Action	Operating pressure range	Port size	Cv factor	Weight
Body ported (with bracket)	NVKF332	2 position single solenoid	0~100 PSI (0~0.7 MPa)	10-32 Nom. (M5)	0.2	0.181 lbs (80 gf)
	NVKF332Y (Low wattage: 2WDC)				0.15	
	NVKF332V (Vacuum)		1 Torr~100 PSI (~100 KPa~0.7 MPa)		0.2	
	NVKF332W (Low wattage + Vacuum)				0.15	
Body ported (for manifold)	NVKF333		0~100 PSI (0~0.7 MPa)		0.2	
	NVKF333Y (Low wattage: 2WDC)				0.15	
	NVKF333V (Vacuum)		1 Torr~100 PSI (~100 KPa~0.7 MPa)		0.2	
	NVKF333W (Low wattage + Vacuum)				0.15	
Base mounted	NVKF334		0~100 PSI (0~0.7 MPa)	1/8 NPTF	0.25	0.271 lbs (120 gf)
	NVKF334Y (Low wattage: 2WDC)				0.15	
	NVKF334V (Vacuum)		1 Torr~100 PSI (~100 KPa~0.7 MPa)		0.25	
	NVKF334W (Low wattage + Vacuum)				0.15	

Specifications

Model	Direct operated 2 position single solenoid
Structure	Poppet valve
Fluid	Air or Inert gas
Operating pressure range	0~100 PSI (0~0.7 MPa)
Ambient and fluid temperature	Max. 120°F (50°C)
* Response time	10ms or less (Std.) (Y, W types: 15ms)
Max. operating frequency	600 cpm
Manual override	Non-locking push type
Lubrication	Not required
Mounting position	Free
Impact / vibration resistance	30G / 5G (83~2000Hz)
Protection structure	Dust proof

* At rated voltage and without light surge voltage suppressor.

Solenoid Specifications

Electrical entry				Grommet (G), DIN Connector (D)
Rated voltage *			AC	110V ^{50/60} HZ, 220V ^{50/60} HZ, 100V ^{50/60} HZ, 200V ^{50/60} HZ
			DC	12V, 24V
Allowance voltage range				±10% rated voltage
Coil insulation				Class B or equivalent
* Temperature rise				130°F or less (Standard)
				95°F or less (Low power consumption)
* Apparent power	AC	Standard	Inrush	8VA / 60Hz, 9.5VA / 50Hz
			Holding	5VA / 60Hz, 7VA / 50Hz
		Continuous duty	Inrush	3.3VA / 60Hz, 3.5VA / 50Hz
			Holding	2.8VA / 60Hz, 3VA / 50Hz
* Power consumption	DC	Without light	4W (Standard), 2W (Low power consumption Y, W types)	
		With light	4.3W (Standard), 2.3W (Low power consumption Y, W types)	
Surge voltage suppressor				AC: Resistor
				DC: Diode
Indicator light				AC: Neon lamp
				DC: LED

* When applied at rated voltage.

* Contact SMC for availability.

* Voltage •

3	110VAC ^{50/60} Hz
4	220VAC ^{50/60} Hz
5	24VDC
6	12VDC
*9	Others ^{Note1)}

* Special order

Note1) Indicate in parentheses at end of part #

Ex. (AC24V)

• Electrical entry

G	Grommet Lead wire length: 12inch (300mm)
D	DIN connector

* (H) Grommet type with 24 inch leads is also available. Special order only.

• Port size

M5	10-32 Nom. (M5)
01T	1/8 NPTF (A port only)

Part no. of option

Description	Part no.	Note
Bracket	VKF300-13A-1	With screw
Manifold gasket	VKF300-11A-2	Body ported With screw
	VKF300-11A-1	Base mounted With screw

Body ported

NVKF332



(With bracket)

Body ported

NVKF333



(Manifold only)

Base mounted

NVKF334



Valve option •

—	(Standard)
V	Vacuum

*Y Low power consumption

*W Vacuum Low power consumption

* Special order

• Port size

—	Without subplate
01T	1/8 NPTF subplate

• Indicator light / Surge voltage suppressor

— None

*S With surge voltage suppressor

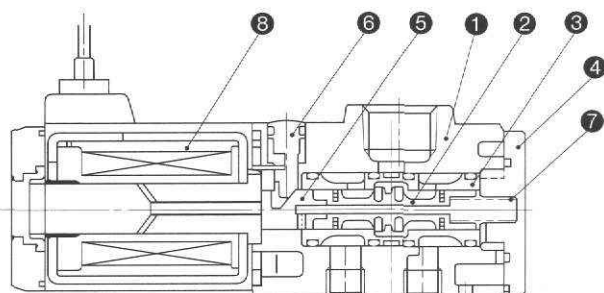
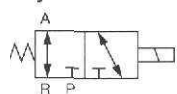
Z With indicator light and surge voltage suppressor (D type only)

* Z option is not available with grommet.

* Special order

Construction / Parts List

Symbol



Main Parts

No.	Description	Material	Note
1	Body	Aluminum	
2	Spool valve ass'y		
3	Sleeve ass'y		
4	End plate	Resin	
5	Manual guide	Resin	
6	Manual override ass'y		
7	Return spring	Stainless steel	
8	Coil ass'y		

Series NVKF300 Manifold

Specifications

Valve stations		2~20 stations (max.)
Manifold	Common SUP. Common EXH.	Body ported, Base mounted
	Common SUP. Individual EXH.	Body ported

How to Order Manifold

Common Supply, Common Exhaust

Body ported / Type 20
(A port: top porting)

NVV3KF3-20-05-00T-

Stations		Optional accessory	
02	2 stations	-	None
⋮	⋮		
20	20 stations	F	With bracket (Not mounted)

Applicable valves
NVKF333○-○○○-M5
NVKF333○-○○○-01T

Applicable blank plate ass'y
VK300-42-1A
Bracket
VK300-43-1A

Base mounted / Type 40
(A port: bottom porting)

NVV3KF3-40-05-01T-

Stations		Optional accessory	
02	2 stations	-	None
⋮	⋮		
20	20 stations	F	With bracket (Not mounted)

Port size	
01T	1/8 NPTF

Applicable valves
NVKF334○-○○○

Applicable blank plate ass'y
VK300-42-1A

Bracket
VK300-43-1A

Base mounted / Type 42
(A port: side porting)

NVV3KF3-42-05-01T

Base mounted / Type S42
(Position of solenoid
same as A port side.)

Position of solenoid		Stations	
-	Opposite side of A port	02	2 stations
⋮	⋮	⋮	⋮
S	Same side as A port	20	20 stations

Port size	
01T	1/8 NPTF
B3T	One touch fitting for 5/32" tube
B7T	One touch fitting for 1/4" tube

Applicable valves
NVKF334○-○○○

Applicable blank plate ass'y
VK300-42-1A

Common Supply, Individual Exhaust

Body ported / Type 21
(A port: top porting)

NVV3KF3-21-05-00T

Stations	
02	2 stations
⋮	⋮
20	20 stations

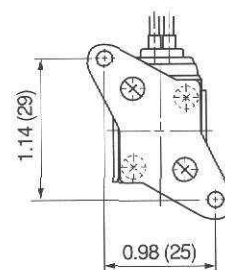
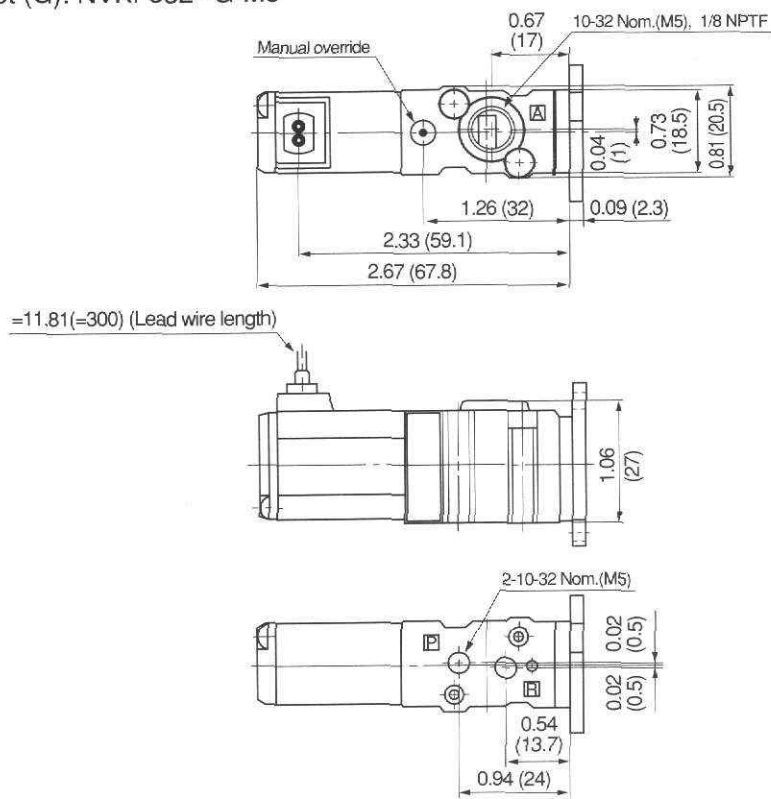
Applicable valves
NVKF333○-○○○-M5
NVKF333○-○○○-01T

Applicable blank plate ass'y
VK300-42-1A

Body Ported

inch (mm)

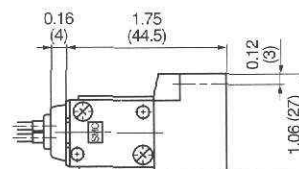
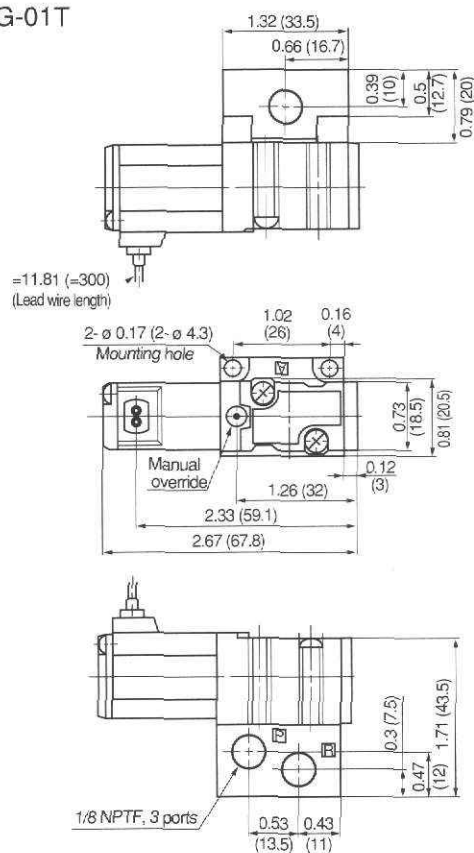
Formet (G): NVKF332-*G-M5



Base Mounted

inch (mm)

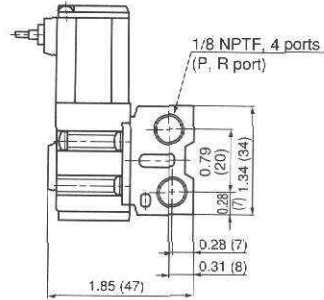
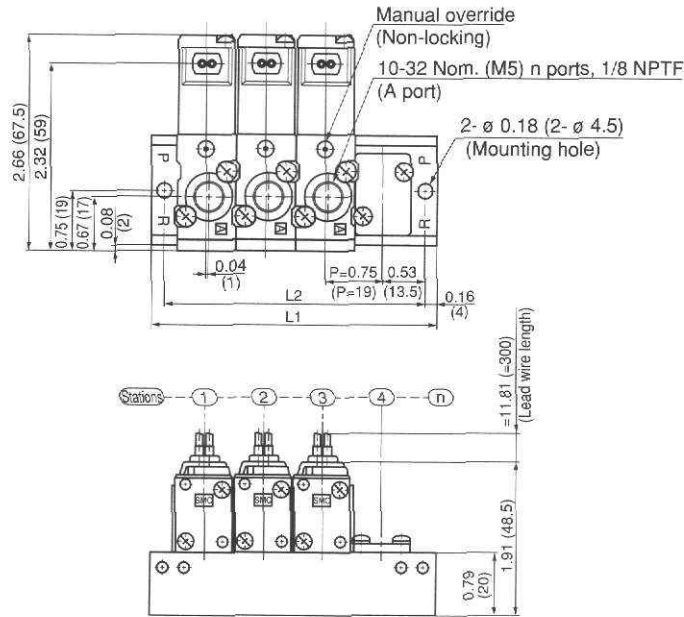
Formet (G): NVKF334-*G-01T



Body Ported (Top Ported) / Type 20 Manifold

NVV3KF3-20-Stations-00T

inch (mm)



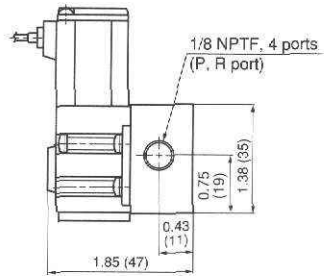
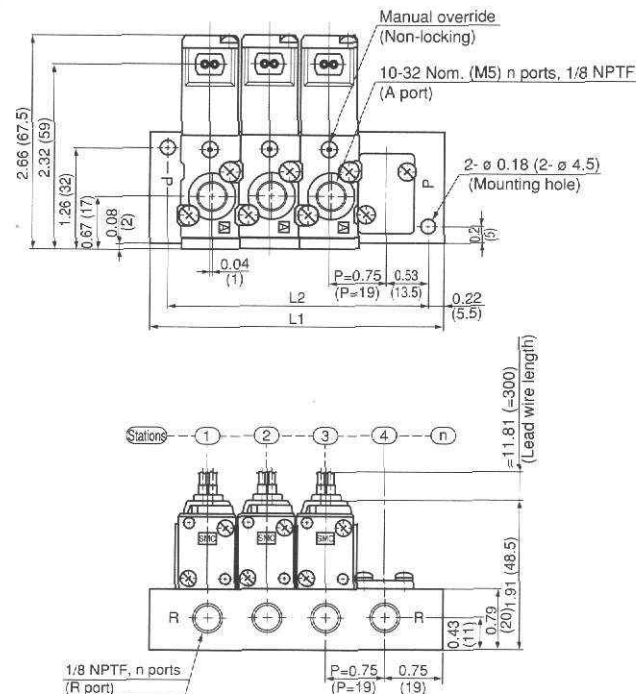
L: Dimensions

L \ n		n																			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1		1.38 (35)	2.13 (54)	2.87 (73)	3.62 (92)	4.37 (111)	5.12 (130)	5.87 (149)	6.61 (168)	7.36 (187)	8.11 (206)	8.86 (225)	9.61 (244)	10.35 (263)	11.1 (282)	11.85 (301)	12.6 (320)	13.35 (339)	14.09 (358)	14.84 (377)	15.59 (396)
		1.06 (27)	1.81 (46)	2.56 (65)	3.31 (84)	4.06 (103)	4.8 (122)	5.55 (141)	6.3 (160)	7.05 (179)	7.8 (198)	8.54 (217)	9.29 (236)	10.04 (255)	10.79 (274)	11.54 (293)	12.28 (312)	13.03 (331)	13.78 (350)	14.53 (369)	15.28 (388)

Body Ported (Top Ported) / Type 21 Manifold

NVV3KF3-21-Stations-00T

inch (mm)

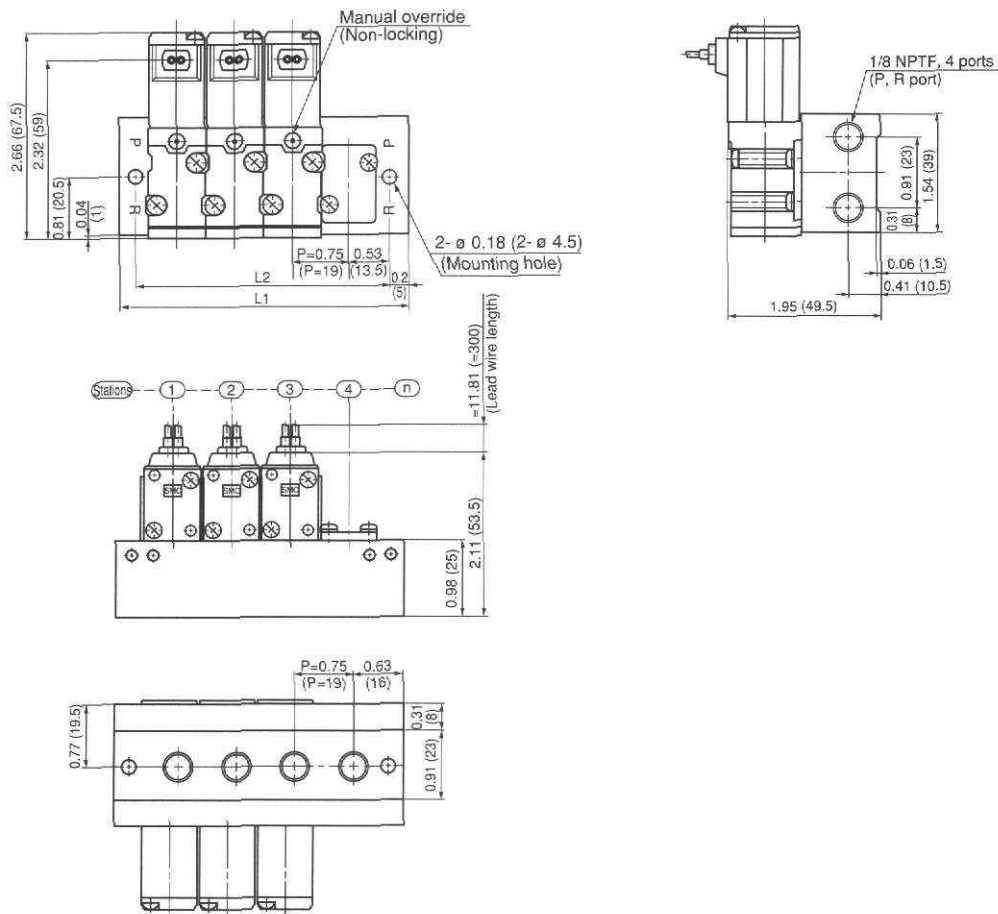


L: Dimensions

L	n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1		1.5 (38)	2.24 (57)	2.99 (76)	3.74 (95)	4.49 (114)	5.24 (133)	5.98 (152)	6.73 (171)	7.48 (190)	8.23 (209)	8.98 (228)	9.72 (247)	10.47 (266)	11.22 (285)	11.97 (304)	12.72 (323)	13.46 (342)	14.21 (361)	14.96 (380)	15.71 (399)
L2		1.06 (27)	1.81 (46)	2.56 (65)	3.31 (84)	4.06 (103)	4.8 (122)	5.55 (141)	6.3 (160)	7.05 (179)	7.8 (198)	8.54 (217)	9.29 (236)	10.04 (255)	10.79 (274)	11.54 (293)	12.28 (312)	13.03 (331)	13.78 (350)	14.53 (369)	15.28 (388)

Base Mounted (Bottom Ported) / Type 40 Manifold
JVV3KF3-40-Stations-01T

inch (mm)



L: Dimensions

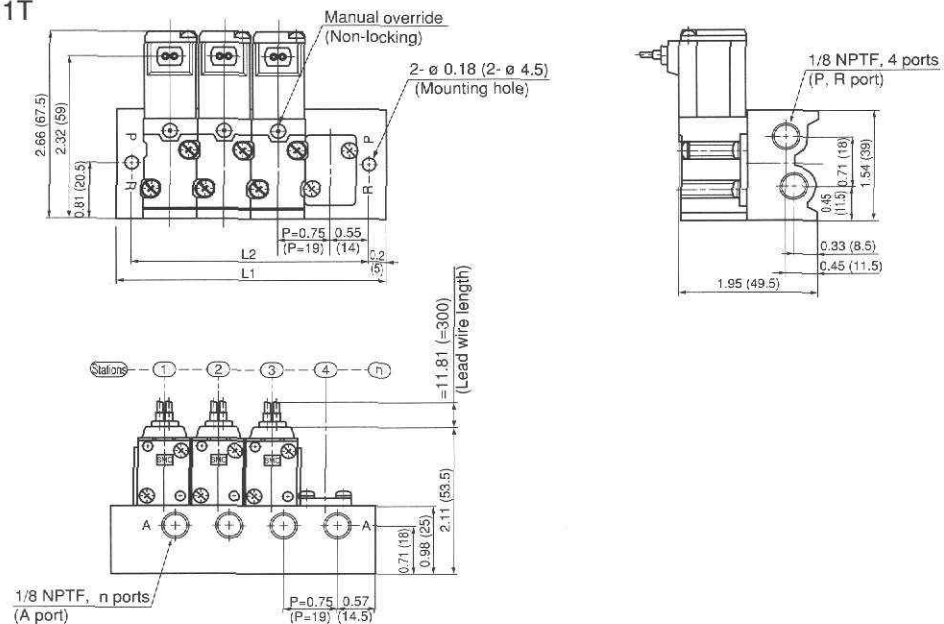
n: Stations

L \ n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	1.46 (37)	2.20 (56)	2.95 (75)	3.7 (94)	4.45 (113)	5.2 (132)	5.94 (151)	6.7 (170)	7.44 (189)	8.19 (208)	8.94 (227)	9.69 (246)	10.43 (265)	11.18 (284)	11.93 (303)	12.68 (322)	13.43 (341)	14.17 (360)	14.92 (379)	15.67 (398)
L2	1.06 (27)	1.81 (46)	2.56 (65)	3.31 (84)	4.06 (103)	4.8 (122)	5.55 (141)	6.3 (160)	7.04 (179)	7.8 (198)	8.54 (217)	9.3 (236)	10.04 (255)	10.79 (274)	11.54 (293)	12.28 (312)	13.03 (331)	13.78 (350)	14.53 (369)	15.28 (388)

Base Mounted (Side Ported) / Type 42 Manifold

NVV3KF3-42-Stations-01T

inch (mm)



L: Dimensions

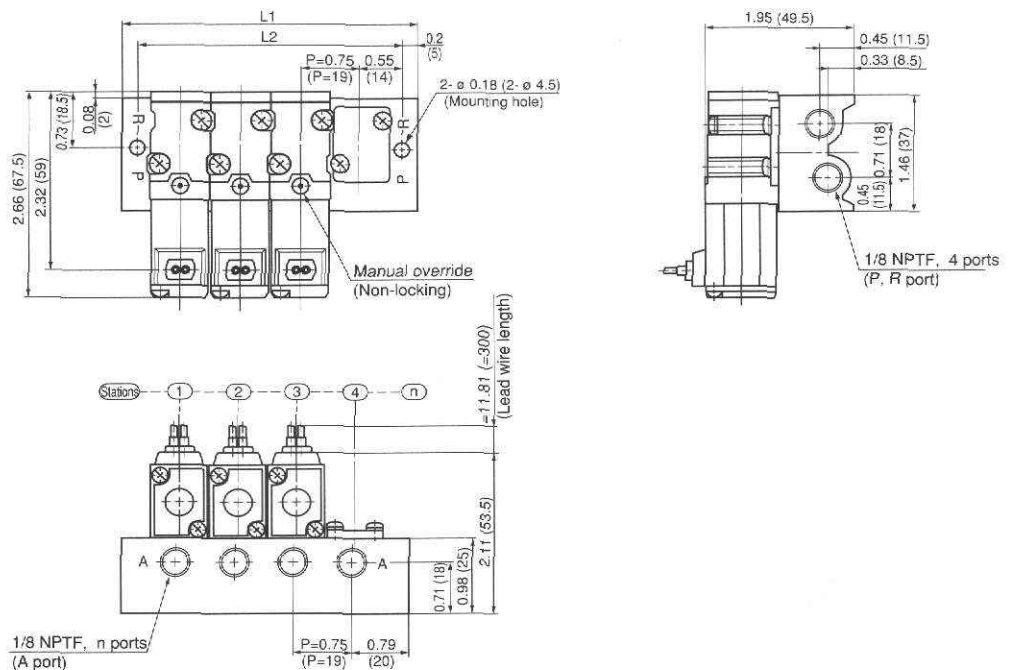
L \ n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	1.5 (38)	2.24 (57)	2.99 (76)	3.74 (95)	4.49 (114)	5.24 (133)	5.98 (152)	6.73 (171)	7.48 (190)	8.23 (209)	8.98 (228)	9.72 (247)	10.47 (266)	11.22 (285)	11.97 (304)	12.72 (323)	13.46 (342)	14.21 (361)	14.96 (380)	15.71 (399)
L2	1.1 (28)	1.85 (47)	2.6 (66)	3.35 (85)	4.09 (104)	4.84 (123)	5.59 (142)	6.34 (161)	7.09 (180)	7.83 (199)	8.58 (218)	9.33 (237)	10.08 (256)	10.83 (275)	11.57 (294)	12.32 (313)	13.07 (332)	13.82 (351)	14.57 (370)	15.31 (389)

n: Stations

Base Mounted (Side Ported) / Type S42 Manifold

NVV3KF3-S42-Stations-01T

inch (mm)



L: Dimensions

L \ n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	1.5 (38)	2.24 (57)	2.99 (76)	3.74 (95)	4.49 (114)	5.24 (133)	5.98 (152)	6.73 (171)	7.48 (190)	8.23 (209)	8.98 (228)	9.72 (247)	10.47 (266)	11.22 (285)	11.97 (304)	12.72 (323)	13.46 (342)	14.21 (361)	14.96 (380)	15.71 (399)
L2	1.1 (28)	1.85 (47)	2.6 (66)	3.35 (85)	4.09 (104)	4.84 (123)	5.59 (142)	6.34 (161)	7.09 (180)	7.83 (199)	8.58 (218)	9.33 (237)	10.08 (256)	10.83 (275)	11.57 (294)	12.32 (313)	13.07 (332)	13.82 (351)	14.57 (370)	15.31 (389)

n: Stations

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