



# Isolation Valves

## N-Series Valves

### SPECIFICATIONS

**Nominal Port OD's:** ¾ (19), 1 (25) and 1 ½ (38) inches (mm)

#### Materials

**Body:** Electropolished 304 stainless steel  
**Bellows:** Welded AM-350 stainless steel  
**Bonnet seal:** Viton  
**Poppet seal:** Viton  
*Other O-ring compounds available*

**Actuation:** Spring/Pneumatic  
 Air-to-open, spring-to-close

**Helium leak tested:**  $\leq 10^{-9}$  mbar l/sec.

**Operating Temperature:** 150°C Max.

**Supply Pressure:** 60 to 100 psig (4-7 bar)

**Differential pressure:** Maximum 6 psi (0.4 bar) differential across the valve seat

**Maximum temperature with Viton seals:** 150°C Max

**Vacuum Range:** 1000 to  $1 \times 10^{-9}$  mbar

**Options:** Solenoids, optical sensors, Heater jackets and controllers available for all valves.



The new N-Series poppet valves are an innovative, compact design with an MTBF of 3 million cycles. A bellows-sealed stem and electropolished stainless steel body provides long life even in the most demanding applications. Standard pneumatic actuation is normally closed (Air-to-Open / Spring-to-Close). N-series valves are available in right angle or angle-in-line body styles with tube ends, NW flanges or CF rotatable flanges. Optional air solenoids are available in multiple voltages and can be ordered

factory installed or as separate kits for easy field installation.

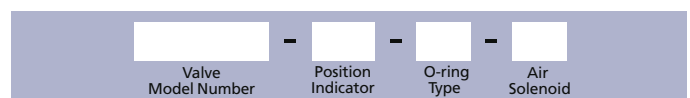
Mounting slots for optional position indicators are incorporated into the actuator body resulting in a reduction in overall size and elimination of the risk of physical damage to the sensors. Sensors are easily installed without adjustment. Optical switch sensors indicate both the open & closed valve positions. It is possible for each valve to have two sensors installed for redundancy. Position indicators can

be ordered factory installed or as separate kits for easy field installation.

One rebuild kit fits the four valve sizes from NW-16 through NW-50 to reduce maintenance inventory costs. Viton O-ring seals are standard, however the valve is designed to accept alternate seal compounds to satisfy your application requirements.

### N-Series Options

Please use the following part numbering tree to add the appropriate options to a standard N-Series valve model number. See tables below for option codes.



#### Example: NAP-150-NW-NPN-K91-S11

Right angle N-Series valve with 1.5 inch (38.1) bore, NW-40 flanges, optical position indicators, Kalrez 9100 O-rings, 120VAC and air solenoid option.

### O-ring Material Options

SEAL MATERIAL	CODE
Viton	Default (no code)
Kalrez 4079	-K79
Kalrez 8085	-K85
Kalrez 8575	-K75
Kalrez 9100	-K91
Chemraz E38	-C38
Dupra 192	-D19
Perlast G74P	-PP7

### Air Solenoid Option

DESCRIPTION	CODE	KIT
120VAC, 50/60 Hz	-S11	N-S11-K
24VDC	-S21	N-S21-K
240VAC, 50/60 Hz	-S31	N-S31-K
24VAC, 50/60 Hz	-S41	N-S41-K

### Position Indicator Option

DESCRIPTION	CODE	KIT
Optical - main valve open & closed	NPN	N-NPN-K
Optical - main valve open & closed	PNP	N-PNP-K

All dimensions are in inches (mm) & weights are in pounds (kg), unless otherwise noted.

# Isolation Valves

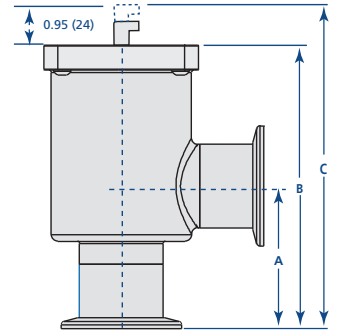
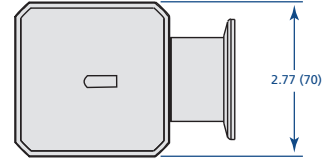
## N-Series Valves

### SECTION 3.2



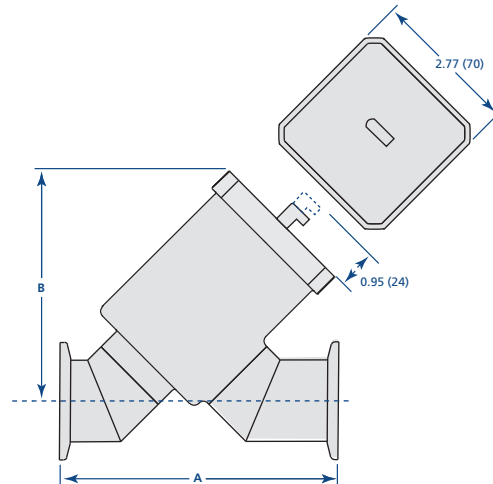
### Pneumatic N-Series Angle Valve

MODEL NUMBER	NOMINAL PORT OD	DESCRIPTION	A	B	C
<b>NAP-075</b>	3/4 (19)	No Flanges	1.42 (36)	3.95 (100)	4.90 (124)
<b>NAP-075-NW</b>	3/4 (19)	NW-16	1.57 (40)	4.10 (104)	5.05 (128)
<b>NAP-075-CF</b>	3/4 (19)	CF-133, Rotatable	1.91 (48)	4.73 (120)	5.68 (144)
<b>NAP-100</b>	1 (25)	No Flanges	1.82 (46)	4.35 (111)	5.30 (135)
<b>NAP-100-NW</b>	1 (25)	NW-25	1.97 (50)	4.50 (114)	5.45 (138)
<b>NAP-100-CF</b>	1 (25)	CF-212, Rotatable	2.28 (58)	4.81 (122)	5.76 (146)
<b>NAP-150</b>	1 1/2 (38)	No Flanges	2.41 (61)	4.94 (125)	5.89 (150)
<b>NAP-150-NW</b>	1 1/2 (38)	NW-40	2.56 (65)	5.09 (129)	6.04 (153)
<b>NAP-150-CF</b>	1 1/2 (38)	CF-275, Rotatable	2.62 (67)	5.15 (131)	6.09 (155)
<b>NAP-200</b>	1 1/2 (38)	No Flanges	2.61 (66)	5.14 (131)	6.09 (155)
<b>NAP-200-NW</b>	1 1/2 (38)	NW-50	2.76 (70)	5.29 (134)	6.24 (159)
<b>NAP-200-CF</b>	1 1/2 (38)	CF-338, Rotatable	2.84 (72)	5.37 (136)	6.32 (161)



### Pneumatic N-Series Angle In-Line Valve

MODEL NUMBER	NOMINAL PORT OD	DESCRIPTION	A	B
<b>NAIP-075</b>	3/4 (19)	No Flanges	3.64 (92)	4.60 (117)
<b>NAIP-075-NW</b>	3/4 (19)	NW-16	3.94 (100)	4.60 (117)
<b>NAIP-075-CF</b>	3/4 (19)	CF-133, Rotatable	4.20 (107)	4.60 (117)
<b>NAIP-100</b>	1 (25)	No Flanges	3.64 (92)	4.00 (102)
<b>NAIP-100-NW</b>	1 (25)	NW-25	3.94 (100)	4.00 (102)
<b>NAIP-100-CF</b>	1 (25)	CF-212, Rotatable	4.75 (121)	4.00 (102)
<b>NAIP-150</b>	1 1/2 (38)	No Flanges	4.82 (122)	4.37 (111)
<b>NAIP-150-NW</b>	1 1/2 (38)	NW-40	5.12 (130)	4.37 (111)
<b>NAIP-150-CF</b>	1 1/2 (38)	CF-275, Rotatable	5.24 (133)	4.37 (111)
<b>NAIP-200</b>	1 1/2 (38)	No Flanges	5.21 (132)	4.37 (111)
<b>NAIP-200-NW</b>	1 1/2 (38)	NW-50	5.51 (140)	4.37 (111)
<b>NAIP-200-CF</b>	1 1/2 (38)	CF-338, Rotatable	5.66 (144)	4.37 (111)



### N-Series Seal Kit

MODEL NUMBER	DESCRIPTION
<b>NA-075-95</b>	Seal kit for 0.75 (19) through 2 (50) inch (mm) sizes, Viton. Includes (1) poppet and (1) bonnet O-ring.

### N-Series Rebuild Kit

MODEL NUMBER	DESCRIPTION
<b>NA-075-99</b>	Valve rebuild kit for 0.75 (19) through 2 (50) inch (mm) sizes. Includes valve actuator/bellows assembly.

**Note:** Seals are not included. Recommend use of the NA-075-95 Seal Kit.

All dimensions are in inches (mm) & weights are in pounds (kg), unless otherwise noted.