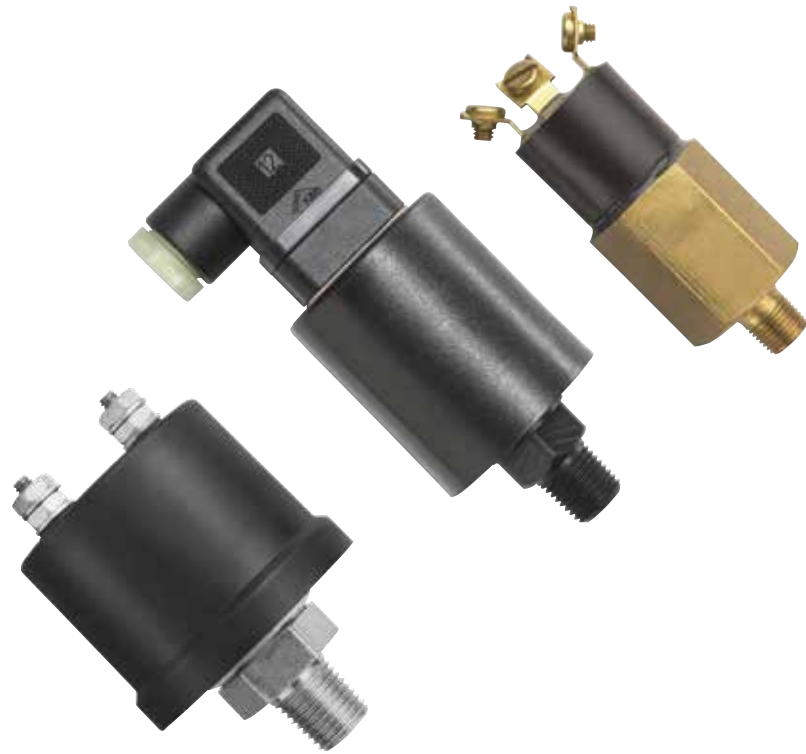


VACUUM SWITCHES



- 1" to 29" vacuum models available
- Long-life elastomer diaphragms
- High-quality snap-action design
- Factory preset or field adjustable
- Over one million operating cycles
- 100% tested for accuracy
- NEMA 4 and 13 available

TABLE OF CONTENTS

18

VACUUM SWITCHES

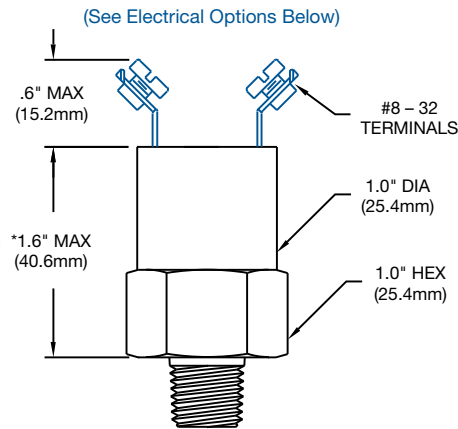


- 19** : **VM** Vacuum Switch
- 20** : **NV** Vacuum Switch
- 21** : **VP** Vacuum Switch
- 22** : Pressure / Vacuum Switch Optional Configurations
- 23** : Pressure / Vacuum Switch Media Connection Designations
- 25** : Pressure / Vacuum Switch Application Worksheet

*

RESOURCES

- 7** : Basic Electrical Connection Options
- 58** : Diaphragm Compatibility
- 59** : Conversion Tables
- 60** : Glossary of Terms



Features

- Long-life elastomer diaphragm
- High-quality snap-action switch
- Factory preset
- Available in a wide range of configurations
- Economical
- NEMA 4, 13

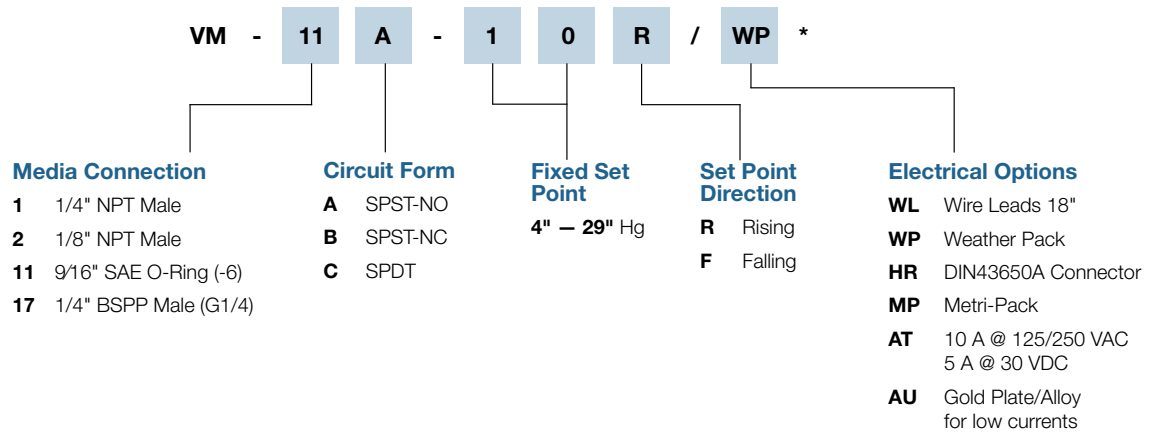
UL **CE** **RoHS**

Operating Specifications

| | | |
|-----------------------------------|--|--------------------------|
| Set Point Range | 4" – 29" Hg | (102mm – 736mm Hg) |
| Set Point Tolerance | ±2" Hg | (50mm Hg) |
| Maximum Operating Pressure | 250 PSI | (17 Bar) |
| Differential | 20 – 40% | |
| Current Rating | 5 A @ 250 VAC | 5 A @ 30 VDC (Resistive) |
| Media Connection | Standard: Brass (Optional: Aluminum, Nickel Plating, Delrin, 303 SS, 316 SS) | |
| Circuit Form | SPST-NO, SPST-NC or SPDT | |
| Electrical Connection | See Order Chart Below for Options | |
| Diaphragm Material | Buna N | |
| Cycle Life | 1 Million | |
| Operating Temperature | -20°F - +220°F | |
| Unit Weight | .16 lbs | |

CHECK OUT
nasonptc.com/configure
 to create your own custom CAD file

How to Order (Example: Part Number: **VM - 11A - 10R / WP** *)



* Defaults to Screw Terminals

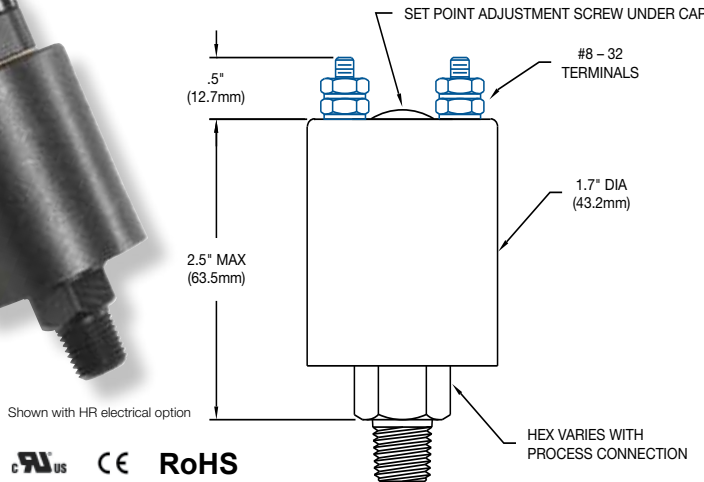
For more [media connections](#), see pages 23-24.

For all available [optional configurations](#), see page 22.

For more [electrical connections](#), see page 7.



(See Electrical Options Below)



Shown with HR electrical option
 UL US CE RoHS

Features

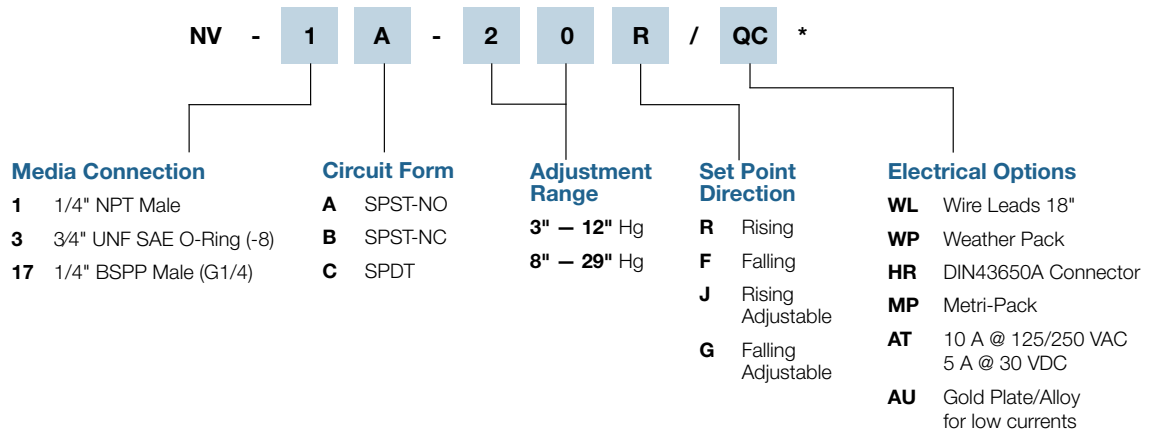
- Long-life elastomer diaphragm
- High-quality snap-action switch
- Factory preset or field adjustable
- Available in a wide range of configurations
- Economical
- NEMA 4, 13

Operating Specifications

| | | |
|-----------------------------------|--|--------------------------|
| Set Point Range | 3" – 29" Hg | (76mm – 736mm Hg) |
| Set Point Tolerance | ±2" Hg | (50mm Hg) |
| Maximum Operating Pressure | 250 PSI | (17 Bar) |
| Differential | 20 – 40% | |
| Current Rating | 5 A @ 250 VAC | 5 A @ 30 VDC (Resistive) |
| Media Connection | Standard: Brass (Optional: Aluminum, Nickel Plating, Delrin, 303 SS, 316 SS) | |
| Circuit Form | SPST-NO, SPST-NC or SPDT | |
| Electrical Connection | See Order Chart Below for Options | |
| Diaphragm Material | Buna N | |
| Cycle Life | 1 Million | |
| Operating Temperature | -20°F - +220°F | |
| Unit Weight | .48 lbs | |

CHECK OUT
nasonptc.com/configure
 to create your own custom CAD file

How to Order (Example: Part Number: **NV- 1A - 20R / QC** *)

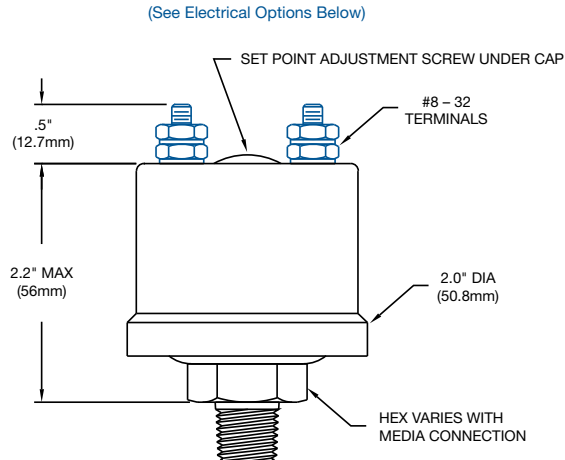


* Defaults to Screw Terminals

For more [media connections](#), see pages 23-24.

For all available [optional configurations](#), see page 22.

For more [electrical connections](#), see page 7.



UL **CE** **RoHS**

Features

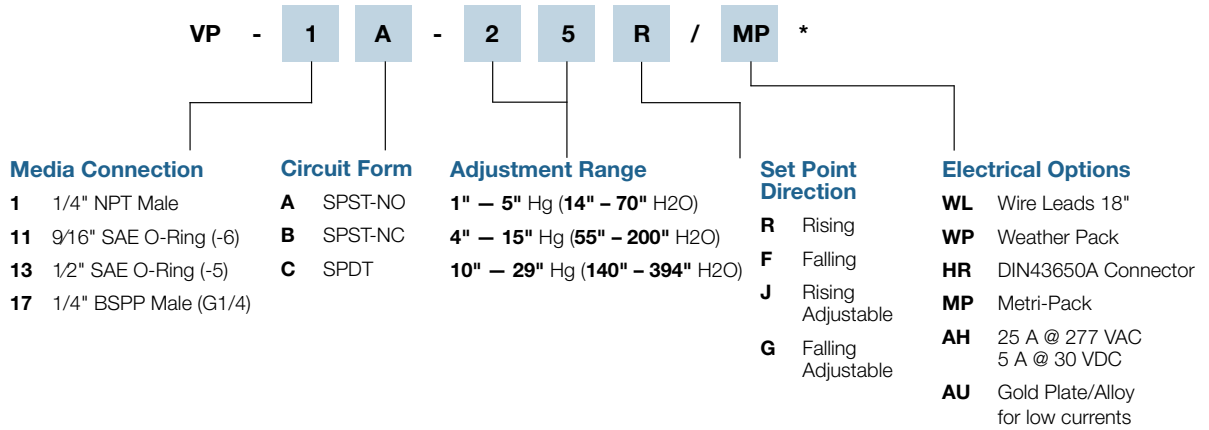
- Long-life elastomer diaphragm
- High-quality snap-action switch
- Factory preset or field adjustable
- Available in a wide range of configurations
- Economical
- NEMA 4, 13

Operating Specifications

| | | |
|-----------------------------------|-----------------------------------|----------------------------------|
| Set Point Range | 1" – 29" Hg | (25mm – 736mm Hg) 14" – 394" H2O |
| Set Point Tolerance | ±2" Hg | (50mm Hg) |
| Maximum Operating Pressure | 250 PSI | (17 Bar) |
| Differential | 20 – 40% | |
| Current Rating | 10 A @ 125/250 VAC | 5 A @ 30 VDC |
| Media Connection | Zinc Plated Steel | |
| Circuit Form | SPST-NO, SPST-NC or SPDT | |
| Electrical Connection | See Order Chart Below for Options | |
| Diaphragm Material | Buna N | |
| Cycle Life | 1 Million | |
| Operating Temperature | -20°F - +220°F | |
| Unit Weight | .43 lbs | |

CHECK OUT
nasonptc.com/configure
 to create your own custom CAD file

How to Order (Example: Part Number: **VP - 1A - 25R / MP**)



* Defaults to Screw Terminals

For more [media connections](#), see pages 23-24.

For all available [optional configurations](#), see page 22.

For more [electrical connections](#), see page 7.

Pressure / Vacuum Switch Part Number Configuration

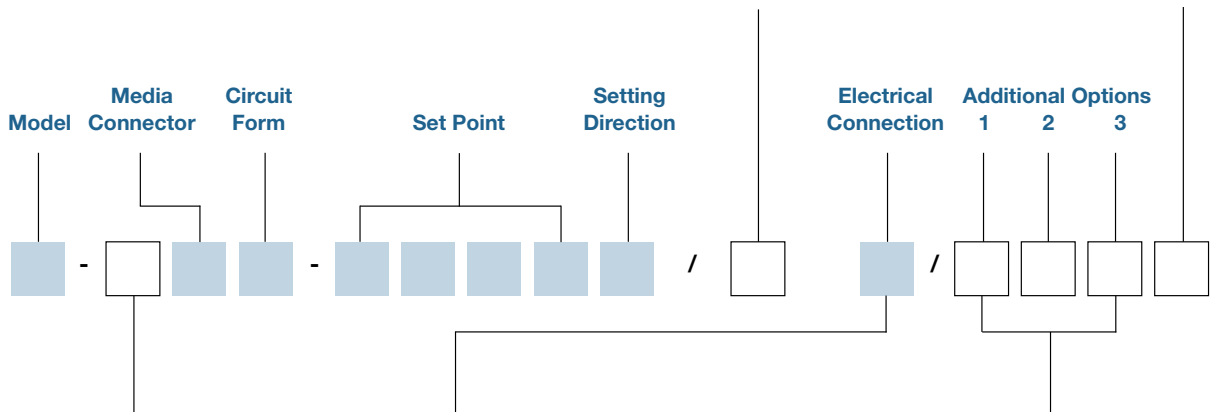
(Complete open boxes only. Shaded boxes should have been previously completed on individual switch pages.)

CHECK OUT
nasonptc.com/configure
 to create your own custom CAD file

Wire Length Settings

- 1 3" Wire Length
- 2 6" Wire Length
- 3 12" Wire Length
- 4 18" Wire Length
- 5 24" Wire Length
- 6 36" Wire Length
- 7 48" Wire Length
- 8 60" Wire Length
- 9 Special Wire Length

Variant #*



Media Connection Modifier

- A** Aluminum
- B** Brass
- N** Nickel Plating
- P** Delrin
- S** Zinc Plated Steel
- T** 303 Stainless Steel
- U** 316 Stainless Steel

Electrical Connection

- HF** DIN43650A 1/2" Conduit (Plug & Receptacle)
- HH** DIN43650A (Plug Only)
- HR** DIN43650A Strain Relief (Plug & Receptacle)
- HP** 9.4mm DIN (Plug Only)
- HM** 9.4mm DIN (Plug & Receptacle)
- MP** Metri-Pack Female 280 Series Sealed (Nason Standard)
- NP** Metri-Pack Male 280 Series Sealed
- CP** Metri-Pack Female 150 Series Sealed
- DP** Metri-Pack Male 150 Series Sealed
- PP** Boot (Military Connector)
- QC** 1/4" Male Spade Quick Connect
- WL** Wire Leads
- WP** Weather Pack (Female)
- TP** Weather Pack (Male)
- EL** 1/2" NPT Male Conduit
- EF** 1/2" NPT Female Conduit
- WD** Deutsch Receptacle (DT04)
- PD** Deutsch Plug (DT06)
- HL** Lighted DIN (Plug & Receptacle)
- PT** 10 — 32 Post
- ES** M12 - 4PIN
- CL** Sheathed 18 AWG
- SL** SJO Cable

Additional Options

- 1. Diaphragms**
 - BL** Buna 50 Durometer
 - BT** Buna 431T
 - EP** EP 559 PE
 - FS** Fluorosilicone
 - GJ** Viton 514 GJ
 - HJ** HNBR, 574 HJ
 - NE** Neoprene
 - SI** 71418 Silicone 80 DUR
 - VT** Viton 514 AD
 - YP** Viton 514 YP
- 2. Contacts****
 - AT** 10 A @ 125/250 VAC
5 A @ 30 VDC
 - AU** Gold Plate/Alloy for low currents
 - AH** 25 A @ 277 VAC
5 A @ 30 VDC
- 3. Other**
 - VL** Convolute (for wire leads)
 - GG** Internal Ground
 - NF** NSF Approved

* Variant # identifies this configuration as unique to a specific customer or application.

** Ask about our new environmentally sealed snap-action switch.

Pressure / Vacuum Switches

| Option | Base Thread Size* | SM | MM | LM | CJ | XM | WX | CD | VM | NV | VP |
|--------|--|----|----|----|----|----|----|----|----|----|----|
| 1 | 1/4 — 18 NPT Male | • | • | • | • | • | • | • | • | • | • |
| 2 | 1/8 — 27 NPT Male | • | • | • | • | • | • | • | • | • | |
| 3 | 3/4 — 16 UNF SAE O-Ring (-8) | • | • | | • | • | • | • | • | • | |
| 4 | 7/16 — 20 37° JIC Flare (-4) | | | • | | • | • | | | | |
| 5 | 1/4 — 18 NPT Female | • | • | | | • | • | • | | | |
| 6 | 7/16 — 20 O-Ring J514 (-4) | • | • | • | • | • | • | • | | • | • |
| 7 | 1/4 — 18 NPT Female (Obsolete) See Option 5 | | | | | | | | | | |
| 8 | 1/8 — 27 NPT Female | • | • | | | • | • | | • | • | • |
| 9 | 3/8 — 18 NPT Male | • | • | • | • | • | • | • | • | | |
| 10 | 1/4 Female Stainless Steel (Obsolete) See Option 5 | | | | | | | | | | |
| 11 | 9/16 — 18 SAE J514 O-Ring (-6) | • | • | • | • | • | • | • | • | | • |
| 12 | M10 x 1 SAE J2244-3 O-Ring | • | • | • | • | • | • | | | | |
| 13 | 1/2 — 20 UNF SAE O-Ring (-5) | • | • | | | • | • | • | • | | • |
| 14 | 1/2 NPT Male 1/8 NPT Female | • | • | | | | | | | • | |
| 15 | 7/16 — 20 Female SAE O-Ring (-4) | | | | | • | • | • | | | |
| 16 | 7/16 — 20 Female SAE J 514 37 DEG | | | • | | • | • | | | | |
| 17 | 1/4 BSPP Male (G1/4) | • | • | • | • | • | • | • | • | • | • |
| 18 | 7/16 — 20 SAE J1926 O-Ring (Adjustable) | | | | | • | • | | | | |
| 19 | 1/8 BSPT JIS (R1/8) | • | • | • | | • | • | | | | |
| 20 | Tri-Clover | | | | | • | • | | | | |
| 21 | 1/4 BSPP Extended (G1/4) | • | • | | | • | • | | • | | |
| 22 | 1/2 — 14 NPT Brass Male (IS Only) | | | | | | | | | | |
| 23 | 1/4 — 18 NPT SS Female (IS Only) | | | | | | | | | | |
| 24 | 10/32 INT 3/8 — 24 EXT | • | • | | | | | | | | |
| 25 | 1/4 NPT Plastic (Obsolete) See Option 1 | | | | | | | | | | |
| 26 | 9/16 — 18 Female 37 DEG SAE J 514 (-6) | | | • | | • | • | • | | | |
| 27 | 1/2 BSPT — Male (R1/2) | • | • | | | | | | • | | |
| 28 | 1/8 BSPP (G1/8) | • | • | | • | | | | | | |
| 29 | 3/8 — 24 SAE O-Ring J514 (-3) | • | • | | | • | • | | | | |
| 30 | 1/4 BSPT (JIS) (R1/4) | • | • | | | | | • | • | | |
| 31 | Flange (NS Only) | | | | | | | | | | |
| 32 | M12 — 1.5 Metric | • | • | | | | | | | | |
| 33 | NO LONGER AVAILABLE | | | | | | | | | | |
| 34 | 7/16 — 20 MS33649 Female* | | | | | • | • | | | | |
| 35 | 1/2 — 14 NPT (Male) | • | • | • | | • | • | | | | |
| 36 | 9/16 — O-Ring Ext Boss (-6) | | | • | | • | • | | | | |
| 37 | 3/8 — 24 2A Inverted Flare | • | • | • | | | | | | | |
| 38 | 9/16 — 12 UNC (SR Only) | • | • | | | | | • | | • | |
| 39 | 1/4 — 18 NPTF SAE J516 (-4) | | | | | • | • | • | | | |
| 40 | M10X1 SAE J2244-3 (Obsolete) See Option 12 | | | | | | | | | | |
| 41 | 7/16 — 20 Internal 45° Flare — SAE J 513 | • | • | | | | | | • | | |
| 42 | 9/16 — 18 SAE J1926 O-Ring (Adjustable) | | | | | | | | | | |
| 43 | M10 x 1 SAE J2244-3 Extended | • | • | | | | | | | | |
| 44 | 1/4 — 18 NPT Female Extended | | | | | • | • | | | | |
| 45 | 9/16 — 18 Female SAE J514 O-Ring (-6) | | | | | • | • | | | | |
| 46 | 1/8 NPT Male Clipped Hex | • | • | | | | | | | | |
| 47 | 1/4 — 19 BSPP Female (G1/4) | | | | | • | • | | | | |

*Call Nason at 800.229.4955 if you don't see the media connection that fits your application. **Note:** Consult factory for materials and stock.

Pressure / Vacuum Switches

| Option | Base Thread Size* | SM | MM | LM | CJ | XM | WX | CD | VM | NV | VP |
|--------|--|----|----|----|----|----|----|----|----|----|----|
| 48 | 9/16 — 18 SAE J514 O-Ring (-6) | | | | | | | | | | • |
| 49 | M14 x 1.5 J2244/3 O-Ring | • | • | • | | • | • | • | | | |
| 50 | .302 — 32 Female | • | • | | | | | | | | |
| 51 | M14 x 1.5 (19mm Hex) | | | • | | | | | | | |
| 52 | 3/8 — 24 UNF W/ 1/4 BARB | • | • | | | | | | | | |
| 53 | M12 x 1.5 SAE J2244/3 O-Ring | • | • | • | | • | • | • | | | |
| 54 | 1-1/8 Hex 1/4 NPT | | | | | • | • | | | | |
| 55 | 1/2 BSPP (G1/2) | | | | | • | • | | | | |
| 56 | M10 x 1 Metric Pipe Thread | • | • | | | • | • | | | | |
| 57 | 7/16 — 20 1-1/8 Hex | | | | | • | • | | | | |
| 58 | 9/16 — 18 1-1/8 Hex | | | | | • | • | | | | |
| 59 | 1-11 — 1/2 NPT | | | | | | | | | | |
| 60 | 1/4 SAE J513 Female Flare Deflator | • | • | | | • | • | | • | | |
| 61 | 9/16 — 18 SAE J514 37° Male | | | | | • | • | • | | | |
| 62 | NO LONGER AVAILABLE | | | | | | | | | | |
| 63 | 1/2 — 20 Extended | • | • | | | | | | | | |
| 64 | 3/8 — 19 BSPP (G3/8) | • | • | | | | | | | | |
| 65 | 3/4 — 14 NPT Male | | | • | | | | | | | |
| 66 | 1/4 Tube Plastic | • | | | | | | | | | |
| 67 | 9/16 — 18 SAE J1453 O-Ring Face Seal (-4) | | | • | | • | • | • | | | |
| 68 | 9/16 — 18 SAE O-Ring Face Seal (Female) | | | • | | • | | | | | |
| 69 | 11/16 — 16 SAE J1453 O-Ring Face Seal (-6) | | | | | • | • | • | | | |
| 70 | M10 x 1.25 Female Flare Deflator | • | • | | | | | | | | |
| 71 | DX Face Seal Mount | | | | | | | | | | |
| 72 | 11/16 — 16 SAE O-Ring Face Seal (Female) | | | • | | | | | | | |
| 73 | M18 x 1.5 SAE J2244/3 O-Ring | | | | | | | • | | | |
| 74 | Special SM/MM Port Seal | • | • | | | | | | | | |
| 75 | 1/8 — 27 Straight with 1/8 Barb | | | | | | | | | • | |
| 76 | M8 x 1 SAE J2244-2 O-Ring | • | • | | | | | | | | |
| 77 | M16 x 1.5 SAE J2244-3 O-Ring | • | • | | | | | | | | |
| 78 | M16 x 1.0 | | | | | | | • | | | |
| 79 | M14 x 1.5 For Washer Seal | | | | | | | | | | |
| 80 | 3/8 O-Ring Port Seal | • | • | | | | | | | | |
| 81 | 3/8 — 24 J512 (-3) 45° Flare | | | | | • | | | | | |
| 82 | 5/16 — 24 For #13 O-Ring Seal | • | • | | | | | | | | |
| 83 | M9 X 1.25 6G | | | | | • | | | | | |
| 84 | 3/8 — 24 UNF 2A (-3) 37° Flare | • | • | | | | | | | | |
| 85 | M10 X 1 DIN 3852 Type B | | | • | | | | | | | |
| 86 | 3/4 — 14 Male 1/4 — 18 NPT Female | | | | | | | | | | |
| 87 | Top Manifold Mount (Seal) | • | • | | | | | | | | |
| 88 | M16 X 1.5 For Copper Washer Seal | • | • | | | | | | | | |
| 89 | M16 O-Ring Port Seal | • | • | | | | | | | | |
| 90 | Stoelting Flange | • | | | | | | | | | |
| 91 | 1/2 NPT Male 1/4 NPT Female | • | • | | | • | | | | | |
| 92 | 3/8 BSPT (R3/8) | • | • | | | • | | | | | |
| 93 | 7/16 — 20 For Washer Seal | | | • | | | | | | | |

*Call Nason at **800.229.4955** if you don't see the media connection that fits your application. **Note:** Consult factory for materials and stock.

Pressure / Vacuum Switches

So we can better meet your application needs, please take a moment to fill out this operation specifications form. Nason will provide a sample to your specifications.

1 Maximum Operating Pressure: _____

2 Media: _____

3 Set Point: Rising _____ Falling _____
 Rising Adjustable _____ Falling Adjustable _____

4 Circuit Form: SPST-NO SPST-NC SPDT

5 Differential: _____

6 Circuit: Electrical AC _____ V DC _____ V
 Load (Amps) _____ Resistive Inductive Inrush _____

7 Media Connection: _____

8 Electrical Connection: _____

9 Temperature: Media _____ °F Ambient _____ °F

10 Cycles: _____ per hour Other (describe): _____

11 Other Special Requirements (attach separate sheet if necessary): _____

12 System: New Design Redesign

13 Application: What will switch control? (Attach circuit diagrams if available) _____

14 Prototype(s) Required by (Date): _____

15 Estimated Annual Usage: _____ Target Net Price: _____

Firm: _____

Address: _____

Project Number or Name: _____

Name & Title: _____ Phone: _____

Email Address: _____

ELECTRICAL CONNECTION OPTIONS

MORE THAN THE COMPETITION

Nason knows that your designs are used in all types of applications imaginable, so we want to make sure you have a choice of how you configure electrical connections. We offer you a wide and growing selection of connections, and if you want something else, just ask our design engineers for it.



Screw
Terminals
#8 – 32

| | | | | | | | |
|---|---|--|-------------------------------------|---|---|---|-----------------------|
| | | | | | | | |
| HF | HH | HR | HP | HM | MP | NP | |
| DIN43650A 1/2" Conduit <i>(Plug & Receptacle)</i> IP65 | DIN43650A <i>(Plug Only)</i> | DIN43650A Strain Relief <i>(Plug & Receptacle)</i> IP67 | 9.4mm DIN <i>(Plug Only)</i> | 9.4mm DIN <i>(Plug & Receptacle)</i> IP65 | Metri-Pack Female 280 Series Sealed IP66 | Metri-Pack Male 280 Series Sealed IP66 | |
| | | | | | | | |
| CP | DP | PP | QC | WL | WP | TP | |
| Metri-Pack Female 150 Series Sealed IP66 | Metri-Pack Male 150 Series Sealed IP66 | Boot <i>(Military Connector)</i> | 1/4" Male Spade Quick Connect | Wire Leads | Weather Pack <i>(Female)</i> IP66 | Weather Pack <i>(Male)</i> IP66 | |
| | | | | | | | |
| EL | EF | WD | PD | ES | CL | SL | VL |
| 1/2" NPT Male Conduit | 1/2" NPT Female Conduit | Deutsch Receptacle IP67 | Deutsch Plug IP67 | M12 - 4PIN IP67 | Sheathed 18 AWG Primaries | SJO Cable | Convolute Covering |

Color Code:
Pin Assignments:
DIN Connector Pin Assignments:
M12 Connector Pin Assignments:

| | | |
|--------------------------|-----------------------------|-------------------------------|
| Black – Common | Red – Normally Open | Blue – Normally Closed |
| A – Normally Open | B – Common | C – Normally Closed |
| #1 – Common | #2 – Normally Closed | #3 – Normally Open |
| #1 – Common | #2 – Not Used | #3 – Normally Open |
| | | #4 – Not Used |
| | | #4 – Normally Closed |

Diaphragm Compatibility

| Media | Buna | EP | Viton |
|----------------------------|------|----|-------|
| Acetic Acid | | • | |
| Acetone | | • | |
| Acetylene | • | | |
| Air | • | | |
| Alcohols | • | | |
| Alkalies (Weak) | • | | |
| Alkalies (Strong) | | • | |
| Ammonia (Anhydrous) | • | | |
| Ammonia (Hydroxide) | | • | |
| Asphalt | | | • |
| Automotive Oils | • | | |
| Beer | • | | |
| Benzene | | | • |
| Boric Acid | • | | |
| Brake Fluid | | • | |
| Bunker Oil | • | | |
| Butane | • | | |
| Butyl Cellosolve | | • | |
| Carbon Dioxide | • | | |
| Carbon Monoxide | • | | |
| Cellube | | • | |
| Chlorobenzene | | | • |
| Citric Acid | • | | |
| Coke Oven Gas | | | • |
| Coolanol | • | | |
| Diesel Fuels | • | | |
| Di-Ester Lube (MIL-L-7808) | | | • |
| Dowtherm A&E | | • | |
| Ethanol | • | | |
| Ether | | • | |
| Ethylene | • | | |
| Ethylene Glycol | • | | |
| Freon 11, 12, 112, 114 | • | | |
| Freon 22 | | • | |
| Fyrquel | | • | |
| Fuel Oil | • | | |
| Gasoline | • | | |
| Glycerin | • | | |
| Helium | • | | |
| Hexane | • | | |

| Media | Buna | EP | Viton |
|--------------------------|------|----|-------|
| Hydraulic Oil (PET Base) | • | | |
| Hydrocarbons | • | | |
| Hydrogen | • | | |
| Hydrogen Sulphide | | • | |
| Isopropanol | | • | |
| JP-3-6 | • | | |
| Kerosene | • | | |
| LPG | • | | |
| Lube Oil (PET base) | • | | |
| Methanol | • | | |
| MEK | | • | |
| Mineral Oil | • | | |
| Motor Oils | • | | |
| Naptha | | • | |
| Natural Gas | • | | |
| Nitric Acid | | • | |
| Nitrogen | • | | |
| Oleum Spirits | | | • |
| Oxygen | • | | |
| Ozone | | • | |
| Crude Oil | • | | |
| Phosphoric Acid | | | • |
| Propane | • | | |
| Propanol | • | | |
| Pydraul | | • | |
| Shell Iris 902 | • | | |
| Silicone Greases | • | | |
| Silicone Oils | • | | |
| Skydrol 500 & 7000 | | • | |
| Soap Solutions | • | | |
| Steam Below 320°F | | • | |
| Stoddard Solvent | • | | |
| Sulfuric Acid | | | • |
| Toluene | | | • |
| Transmission Fluid A | • | | |
| Trisodium Phosphate | • | | |
| Turpentine | • | • | |
| Water to 220°F (104°C) | • | | |
| Water to 302°F (150°C) | | • | |

Other diaphragm materials are available. Consult factory for stock.

Temperature Conversions - [Formula °C = 5/9 (°F - 32°) °F = (9/5 °C) +32°]

| °C | °F | °C | °F | °C | °F | °C | °F | °C | °F |
|----|-------|----|-------|-----|-------|-----|-------|-----|-------|
| 40 | 104.0 | 62 | 143.6 | 84 | 183.2 | 106 | 222.8 | 128 | 262.4 |
| 41 | 105.8 | 63 | 145.4 | 85 | 185.0 | 107 | 224.6 | 129 | 264.2 |
| 42 | 107.6 | 64 | 147.2 | 86 | 186.8 | 108 | 226.4 | 130 | 266.0 |
| 43 | 109.4 | 65 | 149.0 | 87 | 188.6 | 109 | 228.2 | 131 | 267.8 |
| 44 | 111.2 | 66 | 150.8 | 88 | 190.4 | 110 | 230.0 | 132 | 269.6 |
| 45 | 113.0 | 67 | 152.6 | 89 | 192.2 | 111 | 231.8 | 133 | 271.4 |
| 46 | 114.8 | 68 | 154.4 | 90 | 194.0 | 112 | 233.6 | 134 | 273.2 |
| 47 | 116.6 | 69 | 156.2 | 91 | 195.8 | 113 | 235.4 | 135 | 275.0 |
| 48 | 118.4 | 70 | 158.0 | 92 | 197.6 | 114 | 237.2 | 136 | 276.8 |
| 49 | 120.2 | 71 | 159.8 | 93 | 199.4 | 115 | 239.0 | 137 | 278.6 |
| 50 | 122.0 | 72 | 161.6 | 94 | 201.2 | 116 | 240.8 | 138 | 280.4 |
| 51 | 123.8 | 73 | 163.4 | 95 | 203.0 | 117 | 242.6 | 139 | 282.2 |
| 52 | 125.6 | 74 | 165.2 | 96 | 204.8 | 118 | 244.4 | 140 | 284.0 |
| 53 | 127.4 | 75 | 167.0 | 97 | 206.6 | 119 | 246.2 | 141 | 285.8 |
| 54 | 129.2 | 76 | 168.8 | 98 | 208.4 | 120 | 248.0 | 142 | 287.6 |
| 55 | 131.0 | 77 | 170.6 | 99 | 210.2 | 121 | 249.8 | 143 | 289.4 |
| 56 | 132.8 | 78 | 172.4 | 100 | 212.0 | 122 | 251.6 | 144 | 291.2 |
| 57 | 134.6 | 79 | 174.2 | 101 | 213.8 | 123 | 253.4 | 145 | 293.0 |
| 58 | 136.4 | 80 | 176.0 | 102 | 215.6 | 124 | 255.2 | 146 | 294.8 |
| 59 | 138.2 | 81 | 177.8 | 103 | 217.4 | 125 | 257.0 | 147 | 296.6 |
| 60 | 140.0 | 82 | 179.6 | 104 | 219.2 | 126 | 258.8 | 148 | 298.4 |
| 61 | 141.8 | 83 | 181.4 | 105 | 221.0 | 127 | 260.6 | 149 | 300.2 |

Pressure Conversion Formulas

| Into > Multiply by To Convert | PSI | H2O (15°C) | mmHg (0°C) | "Hg (0°C) | Millibar | Bar | Kg/Cm2 | kPa |
|-------------------------------------|---------|------------|------------|-----------|----------|-----------|-----------|---------|
| PSI | • | 27.70 | 51.71 | 2.036 | 68.95 | 0.06895 | 0.07031 | 6.895 |
| "H2O (15°C) | 0.03609 | • | 1.867 | 0.07349 | 2.489 | 0.002489 | 0.002538 | 0.249 |
| mmHg (0°C) | 0.01934 | 0.5357 | • | 0.03937 | 1.3333 | 0.0013333 | 0.0013596 | 0.113 |
| "Hg (0°C) | 0.4912 | 13.61 | 25.40 | • | 33.86 | 0.03386 | 0.03453 | 3.386 |
| Millibar | 0.0145 | 0.4018 | 0.750062 | 0.02953 | • | 0.001 | 0.0010197 | 0.09998 |
| Bar | 14.50 | 401.8 | 750.062 | 29.53 | 1000 | • | 1.0197 | 99.98 |
| Kg/Cm2 | 14.22 | 394.05 | 735.559 | 28.96 | 980.7 | 0.9807 | • | 98.05 |
| kPa | 0.145 | 4.016 | 7.519 | 0.2953 | 10.002 | 0.010 | 0.0102 | • |

Glossary of Terms

Snap-Action Switches

Nason uses only the highest quality snap-action electrical switches which insures a positive, instantaneous electrical contact under all operating conditions. Nason electrical switches are UL, CSA, CE, and military listed. Ask about our new environmentally sealed snap-action switch.

Diaphragms

Nason pressure switches incorporate elastomer diaphragms to provide a positive media seal. Nitrile is the material of choice for most applications. Ethylene propylene, fluorocarbon, fluorosilicon, and neoprene are readily available for specific applications.

Differential

A distinct change in pressure (or temperature for temperature switches) is necessary to reset a Nason snap-action switch to its original electrical state. This feature prevents “searching” and maximizes switch and system life. Catalog ranges are typical mid-range and can be varied with special construction.

Electrical Connections

A wide variety of electrical connectors are readily available for most applications. Screw terminals, wire leads, blades, studs, conduit, automotive DIN and military connectors are stock items.

Media Connections

Nason’s offering of media connections is unmatched in the industry. NPT, BSP, SAE, JIS, DIN, MS and many others are readily available.

Electrical Circuits

A unique variety of electrical contact arrangements allows the system designer to achieve complex logic at minimal cost. Contact arrangements up to form ZZ and isolated dual set points are available.

Electrical Rating

Most Nason switches are available in a nominal 5 or 10 AMP rating. Gold plated contacts for low current and 25 AMP ratings are also available.

Life

The operational life of a Nason switch is normally in excess of one million cycles. Operating life depends on many variables, and specific tests should be run if marginal conditions exist.

Application

Nason switches are used successfully in a great variety of pneumatic and hydraulic applications. Military vehicles and equipment, aviation, marine, machine tools, farm and construction equipment, process equipment, medical equipment, and industrial machinery are typical applications.

Customization

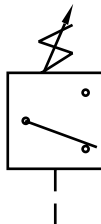
Nason has the experience and willingness to customize any switch to meet specific application requirements. Special media connections, electrical connections, circuitry and construction materials can be designed and produced as needed.

Installation Torques

Pressure Switch - 10 ft lbs
 Temperature Switch - 14-15 ft lbs.

Circuitry

Adjustable Pressure Switch
 Component Symbol



Fixed Pressure Switch
 Component Symbol

