



# **NASON** TEMPERATURE AND PRESSURE SWITCHES



**APPLICATIONS : HYDRAULIC, PNEUMATIC AND ENGINE**

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**CD** High Pressure Switch



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<b>LM</b>	Low Pressure Switch	5
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**LM** Low pressure switch



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**TD** Temperature Switch

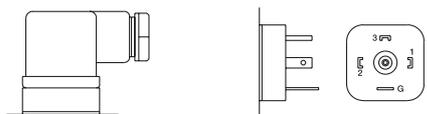


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**TT** Temperature Switch



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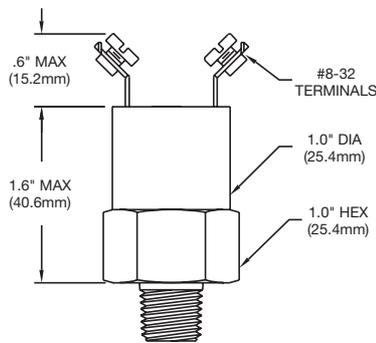


Shown with 9.4mm DIN – Electrical Option HP

### Features

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

### Dimensions



### Operating Specifications

<b>Set Point Range</b>	0,14 – 8,3 bar (2 – 120 PSI)
<b>Set Point Tolerance</b>	± 0,07 bar or 5% (± 1 PSI or 5%)
<b>Maximum Operating Pressure</b>	17 bar (250 PSI)
<b>Proof Pressure</b>	51 bar (750 PSI)
<b>Differential</b>	8 – 16%
<b>Current Rating</b>	5 A @ 250 VAC 5 A @ 30 VDC (Resistive)
<b>Media Connection</b>	See Order Chart Below for Options
<b>Circuit Form</b>	SPST-NO or SPST-NC
<b>Electrical Connection</b>	See Order Chart Below for Options
<b>Diaphragm Material</b>	Buna N
<b>Cycle Life</b>	1 Million

### How to Order

Example: Part Number: **SM – 2A – 95R /**

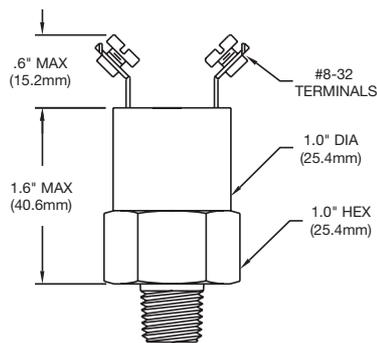
<b>SM – 2 A – 9 5 R / *</b>				
<p><b>Media Connection</b></p> <p><b>1</b> 1/4" NPT Male</p> <p><b>2</b> 1/8" NPT Male</p> <p><b>6</b> 7/16" SAE O-Ring (-4)</p> <p><b>14</b> 1/2" NPT Male – 1/8" NPT Female</p> <p><b>17</b> 1/4" BSPP Male (G1/4)</p> <p><b>28</b> 1/8" BSPP Male (G1/8)</p>	<p><b>Circuit Form</b></p> <p><b>A</b> SPST-NO</p> <p><b>B</b> SPST-NC</p> <p><b>C</b> SPDT</p>	<p><b>Fixed Set Point</b></p> <p><b>2 – 120 PSI</b></p>	<p><b>Set Point Direction</b></p> <p><b>R</b> Rising</p> <p><b>F</b> Falling</p>	<p><b>Electrical Options</b></p> <p><b>WL</b> Wire Leads 18" (457.2mm)</p> <p><b>QC</b> 1/4" Spade Connection</p> <p><b>WP</b> Weather Pack</p> <p><b>HR</b> DIN43650A Connector</p> <p><b>MP</b> Metri-Pack</p> <p><b>AT</b> 10 A @ 125/250 VAC 5 A @ 30 VDC</p> <p><b>GG</b> Internal Ground</p> <p><b>AU</b> Gold Plate/Alloy for low currents</p>
<p>* Defaults to Screw Terminals</p>				

See pages 10 - 11 for additional options available on this model. For custom designs and technical assistance please contact us.



Shown with Weather Pack – Electrical Option WP

### Dimensions



### Features

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

### Operating Specifications

<b>Set Point Range</b>	0,14 – 8,3 bar	(2 – 120 PSI)
<b>Set Point Tolerance</b>	± 0,07 bar or 5%	(± 1 PSI or 5%)
<b>Maximum Operating Pressure</b>	41 bar	(600 PSI)
<b>Proof Pressure</b>	124 bar	(1800 PSI)
<b>Differential</b>	8 – 16%	
<b>Current Rating</b>	5 A @ 250 VAC	
	5 A @ 30 VDC (Resistive)	
<b>Media Connection</b>	See Order Chart Below for Options	
<b>Circuit Form</b>	SPST-NO or SPST-NC	
<b>Electrical Connection</b>	See Order Chart Below for Options	
<b>Diaphragm Material</b>	Buna N	
<b>Cycle Life</b>	1 Million	

### How to Order

Example: Part Number: **MM – 6A – 80R / WL**

<b>MM – 6 A – 8 0 R / WL *</b>				
<p><b>Media Connection</b></p> <p><b>1</b> 1/4" NPT Male</p> <p><b>2</b> 1/8" NPT Male</p> <p><b>6</b> 7/16" SAE O-Ring (-4)</p> <p><b>14</b> 1/2" NPT Male – 1/8" NPT Female</p> <p><b>17</b> 1/4" BSPP Male (G1/4)</p> <p><b>28</b> 1/8" BSPP Male (G1/8)</p>	<p><b>Circuit Form</b></p> <p><b>A</b> SPST-NO</p> <p><b>B</b> SPST-NC</p> <p><b>C</b> SPDT</p>	<p><b>Fixed Set Point</b></p> <p>2 – 120 PSI</p>	<p><b>Set Point Direction</b></p> <p><b>R</b> Rising</p> <p><b>F</b> Falling</p>	<p><b>Electrical Options</b></p> <p><b>WL</b> Wire Leads 18" (457.2mm)</p> <p><b>QC</b> 1/4" Spade Connection</p> <p><b>WP</b> Weather Pack</p> <p><b>HR</b> DIN43650A Connector</p> <p><b>MP</b> Metri-Pack</p> <p><b>AT</b> 10 A @ 125/250 VAC 5 A @ 30 VDC</p> <p><b>GG</b> Internal Ground</p> <p><b>AU</b> Gold Plate/Alloy for low currents</p>
<p>* Defaults to Screw Terminals</p>				

See pages 10 - 11 for additional options available on this model. For custom designs and technical assistance please contact us.

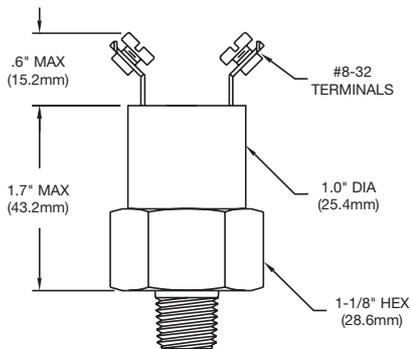


Shown with Female Conduit – Electrical Option EF

### Features

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

### Dimensions



### Operating Specifications

<b>Set Point Range</b>	0,69 – 20 bar	(10 – 300 PSI)
<b>Set Point Tolerance</b>	± 0,07 bar or 5%	(± 1 PSI or 5%)
<b>Maximum Operating Pressure</b>	137 bar	(2000 PSI)
<b>Proof Pressure</b>	413 bar	(6000 PSI)
<b>Differential</b>	12 – 24%	
<b>Current Rating</b>	5 A @ 250 VAC	
	5 A @ 30 VDC (Resistive)	
<b>Media Connection</b>	See Order Chart Below for Options	
<b>Circuit Form</b>	SPST-NO or SPST-NC	
<b>Electrical Connection</b>	See Order Chart Below for Options	
<b>Diaphragm material</b>	Buna N	
<b>Cycle Life</b>	1 Million	

### How to Order

Example: Part Number: **LM – 6A – 250R / WL**

<b>LM – 6 A – 2 5 0 R / WL *</b>				
<p><b>Media Connection</b></p> <p><b>1</b> 1/4" NPT Male</p> <p><b>2</b> 1/8" NPT Male</p> <p><b>6</b> 7/16" SAE O-Ring (-4)</p>	<p><b>Circuit Form</b></p> <p><b>A</b> SPST-NO</p> <p><b>B</b> SPST-NC</p> <p><b>C</b> SPDT</p>	<p><b>Fixed Set Point</b></p> <p><b>10 – 300 PSI</b></p>	<p><b>Set Point Direction</b></p> <p><b>R</b> Rising</p> <p><b>F</b> Falling</p>	<p><b>Electrical Options</b></p> <p><b>WL</b> Wire Leads 18" (457.2mm)</p> <p><b>QC</b> 1/4" Spade Connection</p> <p><b>WP</b> Weather Pack</p> <p><b>HR</b> DIN43650A Connector</p> <p><b>MP</b> Metri-Pack</p> <p><b>AT</b> 10 A @ 125/250 VAC 5 A @ 30 VDC</p> <p><b>GG</b> Internal Ground</p> <p><b>AU</b> Gold Plate/Alloy for low currents</p>
<p>* Defaults to Screw Terminals</p>				

See pages 10 - 11 for additional options available on this model. For custom designs and technical assistance please contact us.

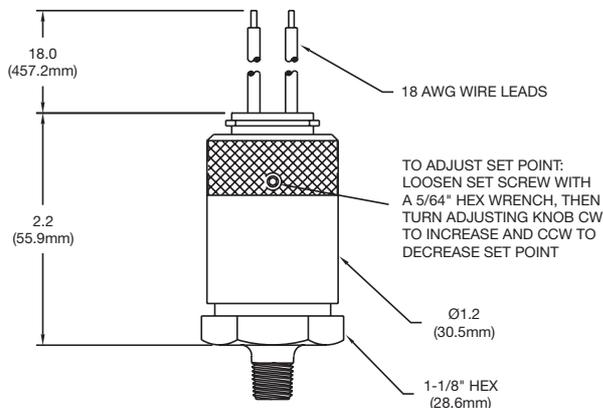


Shown with 9.4mm DIN – Electrical Option **HM**

**Features**

- Long life elastomer diaphragm
- High quality snap action switch
- Field adjustable
- Compact design
- Easily customized
- Quick delivery
- NEMA 4, 13

**Dimensions**



**Operating Specifications**

<b>Set Point Range</b>	0,21 – 8,3 bar (3 – 120 PSI)
<b>Set Point Tolerance</b>	± 0,07 bar or 5% (± 1 PSI or 5%)
<b>Maximum Operating Pressure</b>	17 bar (250 PSI)
<b>Proof Pressure</b>	51 bar (750 PSI)
<b>Differential</b>	10 – 20%
<b>Current Rating</b>	3 A @ 125 VAC 2 A @ 30 VDC (Resistive)
<b>Media Connection</b>	See Order Chart Below for Options
<b>Circuit Form</b>	SPST-NO or SPST-NC
<b>Electrical Connection</b>	See Order Chart Below for Options
<b>Diaphragm material</b>	Buna N
<b>Cycle Life</b>	1 Million

**How to Order**

Example: Part Number: **CJ - 1B3 - 060J / WL**

<p><b>CJ - 1 B 3 - 0 6 0 J / WL</b></p>					
<p><b>Media Connection</b></p> <p>1 1/4" NPT Male</p> <p>2 1/8" NPT Male</p> <p>17 1/4" BSPP Male</p> <p>28 1/8" BSPP Male</p>	<p><b>Circuit Form</b></p> <p>A SPST-NO</p> <p>B SPST-NC</p> <p>C SPDT</p>	<p><b>Range</b></p> <p>1 3 – 10 PSI</p> <p>2 6 – 30 PSI</p> <p>3 20 – 120 PSI</p>	<p><b>Desired Set Point</b></p> <p>3 – 120 PSI</p>	<p><b>Set Point Direction</b></p> <p>J Rising Adjustable</p> <p>G Falling Adjustable</p>	<p><b>Electrical Options</b></p> <p>WL Wire Leads 18" ( 457.2mm)</p> <p>WP Weather Pack</p> <p>HM 9.4mm DIN</p> <p>MP Metri-Pack</p> <p>AU Gold Plate/Alloy for low currents</p>

See pages 10 - 11 for additional options available on this model. For custom designs and technical assistance please contact us.

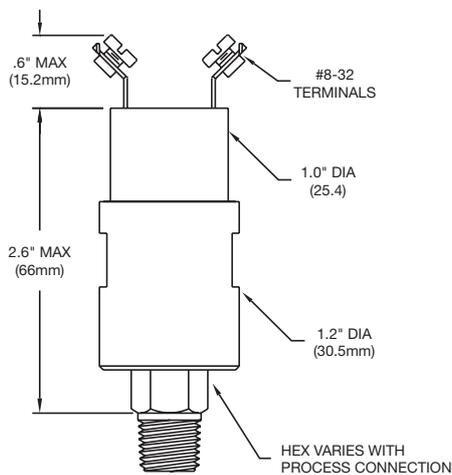


Shown with Male Conduit – Electrical Option EL

## Features

- Long life elastomer diaphragm
- High quality snap action switch
- Factory preset
- Compact design
- Available in a wide range of configurations
- Proven in the most demanding mobile hydraulic applications
- NEMA 4, 13

## Dimensions



## Operating Specifications

<b>Set Point Range</b>	1,3 – 289 bar	(40 – 4000 PSI)
<b>Set Point Tolerance</b>	± 0,34 bar or 5%	(± 5 PSI or 5%)
<b>Maximum Operating Pressure</b>	344 bar	(5000 PSI)
<b>Proof Pressure</b>	1034 bar	(15000 PSI)
<b>Differential</b>	8 – 16%	
<b>Current Rating</b>	5 A @ 250 VAC	
	5 A @ 30 VDC (Resistive)	
<b>Media Connection</b>	See Order Chart Below for Options	
<b>Circuit Form</b>	SPST-No or SPST-NC	
<b>Electrical Connection</b>	See Order Chart Below for Options	
<b>Diaphragm Material</b>	Buna N	
<b>Cycle Life</b>	1 Million	

## How to Order

Example: Part Number: **XM – 1A – 1500R / WL**

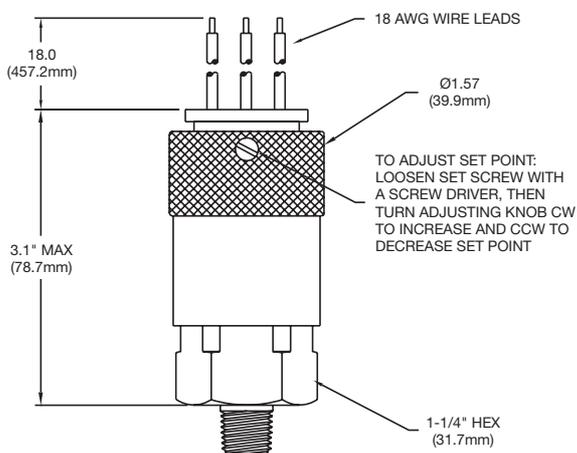
<b>XM – 1 A – 1 5 0 0 R / WL *</b>				
<p><b>Media Connection</b></p> <p><b>1</b> 1/4" NPT Male</p> <p><b>2</b> 1/8" NPT Male</p> <p><b>4</b> 7/16" SAE 37° Flare (-4)</p> <p><b>6</b> 7/16" SAE O-Ring (-4)</p> <p><b>11</b> 9/16" SAE O-Ring (-6)</p>	<p><b>Circuit Form</b></p> <p><b>A</b> SPST-NO</p> <p><b>B</b> SPST-NC</p> <p><b>C</b> SPDT</p>	<p><b>Fixed Set Point</b></p> <p><b>40 – 4000 PSI</b></p>	<p><b>Set Point Direction</b></p> <p><b>R</b> Rising</p> <p><b>F</b> Falling</p>	<p><b>Electrical Options</b></p> <p><b>WL</b> Wire Leads 18" (457.2mm)</p> <p><b>QC</b> 1/4" Spade Connection</p> <p><b>WP</b> Weather Pack</p> <p><b>HR</b> DIN43650A Connector</p> <p><b>MP</b> Metri-Pack</p> <p><b>AT</b> 10 A @ 125/250 VAC 5 A @ 30 VDC</p> <p><b>GG</b> Internal Ground</p> <p><b>AU</b> Gold Plate/Alloy for low currents</p>
<p>* Defaults to Screw Terminals</p>				

See pages 10 - 11 for additional options available on this model. For custom designs and technical assistance please contact us.



Shown with Complete DIN – Electrical Option HR

## Dimensions



## Features

- Long life elastomer diaphragm (ranges 1 – 3)
- Proven sealed piston sensor (ranges 4 – 7)
- High quality snap action switch
- Field adjustable
- Easily customized
- Quick delivery
- NEMA 4, 13

## Operating Specifications

<b>Set Point Range</b>	0,69 – 289 bar	(10 – 4500 PSI)
<b>Set Point Tolerance</b>	±0,34 bar or 5%	(±5 PSI or 5%)
<b>Maximum Operating Pressure</b>	137 bar (Ranges 1 – 4)	(2000 PSI)
	344 bar (Ranges 5 – 7)	(5000 PSI)
<b>Proof Pressure</b>	413 bar (Ranges 1 – 4)	(6000 PSI)
	1034 bar (Ranges 5 – 7)	(15000 PSI)
<b>Differential</b>	10 – 20%	
<b>Current Rating</b>	5 A @ 250 VAC	
	5 A @ 30 VDC (Resistive)	
<b>Media Connection</b>	See Order Chart Below for Options	
<b>Circuit Form</b>	SPST-NO or SPST-NC	
<b>Electrical Connection</b>	See Order Chart Below for Options	
<b>Diaphragm material</b>	Buna (Ranges 1 – 3)	
	Hardened Steel Piston (Ranges 4 – 7)	
<b>Cycle Life</b>	1 Million	

## How to Order

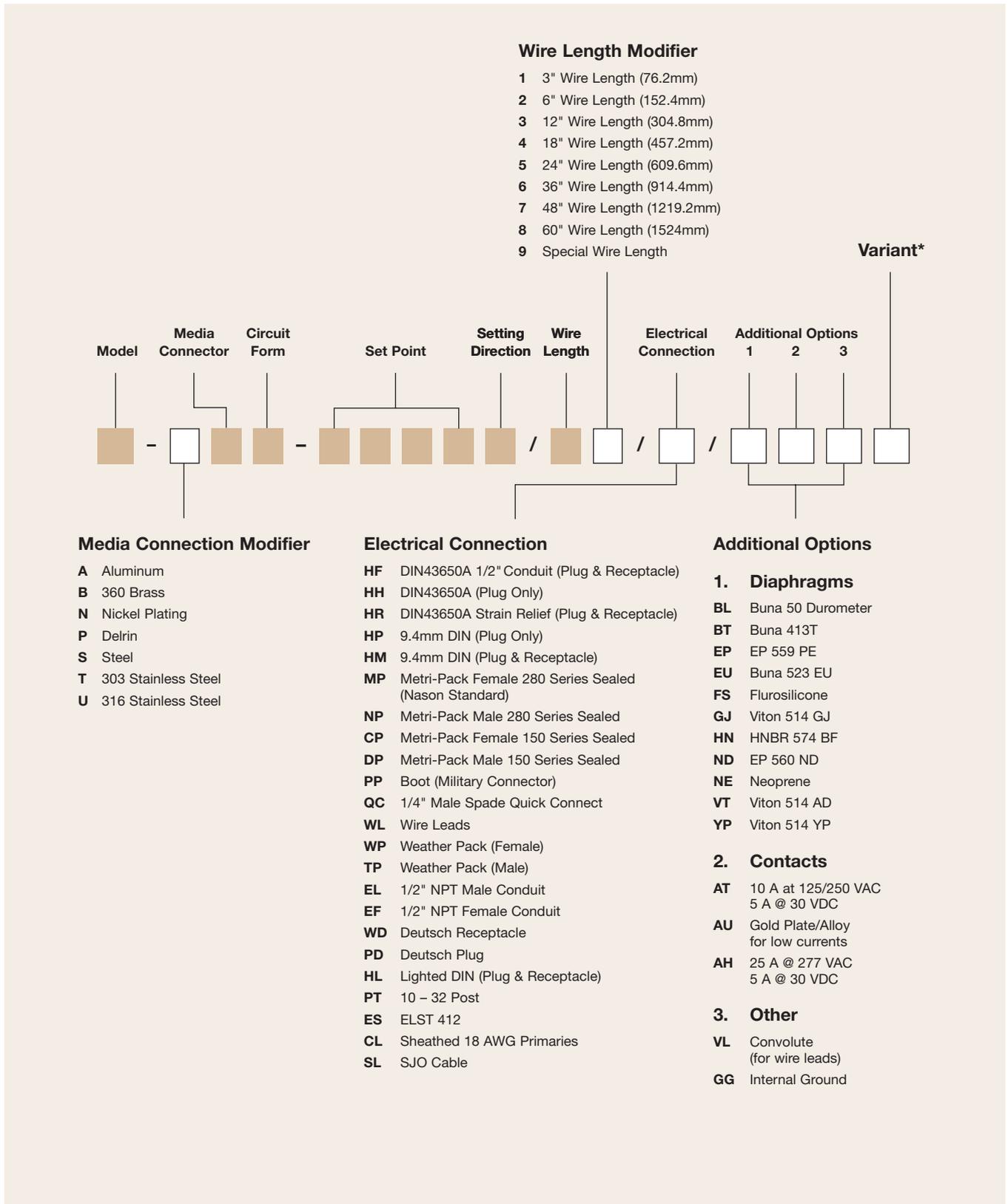
Example: Part Number: **CD – 1B5 – 0750J / EL**

CD – 1 B 5 – 0 7 5 0 J / EL – Electrical Options					
<b>Media Connection</b>	<b>Circuit Form</b>	<b>Range</b>	<b>Desired Set Point</b>	<b>Set Point Direction</b>	<b>Electrical Options</b>
<b>Piston</b>	<b>A</b> SPST-NO	<b>1</b> 10 – 40 PSI	<b>10 – 4500 PSI</b>	<b>J</b> Rising Adjustable	<b>WL</b> Wire Leads 18" (457.2mm)
<b>1</b> 1/4" NPT Male	<b>B</b> SPST-NC	<b>2</b> 25 – 100 PSI		<b>G</b> Falling Adjustable	<b>EL</b> Male Conduit 1/2" – 14 With Wire Leads 18" (457.2mm)
<b>3</b> 3/4" SAE Male	<b>C</b> SPDT	<b>3</b> 50 – 200 PSI			<b>EF</b> Female Conduit 1/2" – 14 With Wire Leads 18" (457.2mm)
<b>11</b> 9/16" SAE Male		<b>4</b> 100 – 400 PSI			<b>HR</b> DIN43650A With Receptacle
<b>Diaphragms</b>		<b>5</b> 250 – 1000 PSI			<b>HH</b> DIN43650A Without Receptacle
<b>1</b> 1/4" NPT Male		<b>6</b> 500 – 2000 PSI			<b>QC</b> 1/4" Spade Connection
<b>3</b> 3/4" SAE Male		<b>7</b> 1200 – 4500 PSI			<b>WP</b> Weather Pack
<b>9</b> 3/8" NPT Male				<b>MP</b> Metri-Pack	
<b>11</b> 9/16" SAE Male				<b>WD</b> Deutsch	
				<b>AT</b> 10 A @ 125/250 VAC 5 A @ 30 VDC	
				<b>AU</b> Gold Plate/Alloy for low currents	

See pages 10 - 11 for additional options available on this model. For custom designs and technical assistance please contact us.

Pressure Switch Part Number Configuration

**Note:** Complete **open** boxes only. Shaded boxes should have been previously completed on individual switch pages.



**Note:** Not all options available on all models.

Pressure Switches

Option	Filetage	SM	MM	LM	CJ	XM	CD
1	1/4 – 18 NPT Male	•	•	•	•	•	•
2	1/8 – 27 NPT Male	•	•	•	•	•	
3	3/4 – 16 UNF SAE O-Ring (-5)	•	•		•	•	•
4	7/16 – 20 37° JIC Flare (-4)			•		•	
5	1/4 – 18 NPT Female	•	•			•	•
6	7/16 – 20 SAE O-Ring (-4)	•	•	•		•	•
7	1/4 – 18 NPT Female (Obsolete) See Option 5						
8	1/8 NPT Female	•	•			•	
9	3/8 – 18 NPT	•	•	•		•	•
10	1/4 Female Stainless Steel (Obsolete) See Option 5						
11	9/16 SAE O-Ring (-6)	•	•	•	•	•	•
12	M10 x 1 SAE J2244-3	•	•	•	•	•	
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 (D4)					•	
16	7/16 – 20 Female SAE J 514 37 DEG			•		•	
17	1/4 BSPP (G1/4)	•	•	•	•	•	•
18	7/16 – 20 ADJ					•	
19	1/8 BSPT JIS (PT) Taper	•	•	•		•	
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 (R12)	•	•				
28	1/8 BSPP (G1/8)	•	•		•		
29	3/8 – 24 SAE O-Ring (-3)	•	•			•	
30	1/4 BSPT (JIS) (R1/4)	•	•				•
31	Flange (NS Only)						
32	M12 – 1.5 Metric	•	•				
33	Extended Flange (NS Only)						
34	7/16 – 20 MS33649 Female* 14 NPTE (Male)					•	
35	1/2 – 14 NPT (Male)			•		•	
36	9/16 O-Ring Extended Boss (-6)			•		•	
37	3/8 – 24 Inverted Flare	•	•	•			
38	9/16 – 12 UNC (SR Only)						

Option	Filetage	SM	MM	LM	CJ	XM	CD
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 ADJ						
43	M10 x 1 SAE J2244-3 Extended	•	•				
44	1/4 – 18 NPT Female Extended					•	
45	9/16 – 18 SAE O-Ring Female (-6)					•	
46	1/8 NPT Male Clipped Hex	•	•				
47	1/4 – 19 BSPP Female (G1/4)					•	
48	9/16 – 18 SAE Male 1/8 NPT Female						
49	M14 x 1.5 J2244/3	•	•			•	
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	•	•	•		•	
54	1-1/8 Hex 1/4 NPT					•	
55	1/2 BSPP					•	
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 DEG Male					•	•
62	1/4 Deflator						
63	1/2 – 20 Extended	•	•				
64	G3/8 (3/8 – 19 BSPP)	•	•				
65	3/4 – 14NPT						
66	1/4 Tube Plastic	•					
67	9/16 – 18 SAE O-Ring Face Seal			•		•	
68	9/16 – 18 SAE O-Ring Face Seal (Female)			•			
69	11/16 – 16 SAE O-Ring Face Seal					•	•
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						
74	Special SM/MM Port Seal	•	•				
75	1/8 – 27 Straight with 1/8 Barb						
76	M8 x 1 SAE J2244-2	•	•				

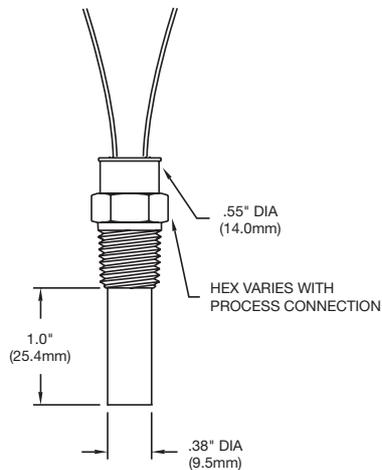


Shown with Deutsch Connector – Electrical Option PD

**Features**

- Bi-metal immersion temperature switch
- Factory preset temperature
- Direct action contacts/minimum hysteresis
- Gold diffused, fine silver contacts for use in low voltage/low current applications
- Available in a wide range of configurations
- Economical
- NEMA 4,13

**Dimensions**



**Operating Specifications**

<b>Set Point Range</b>	4° – 149°C	(40° – 300°F)
<b>Set Point Tolerance</b>	±2.8°C	(±5°F)
<b>Maximum Temperature</b>	163°C	(325°F)
<b>Differential</b>	1 - 2 °C	
<b>Current Rating</b>	3 A @ 240 VAC	
	2 A @ 24 VDC (Resistive)	
<b>Probe Length</b>	25.4mm	(1")
<b>Media Connection</b>	See Order Chart Below for Options	
<b>Circuit Form</b>	SPST-NO or SPST-NC	
<b>Electrical Connection</b>	See Order Chart Below for Options	
<b>Maximum External Pressure</b>	344 bar	(5000 PSI)

**Many standard parts from stock. Do not hesitate to contact us.**

**How to Order**

Example: Part Number: **TT - D3A - 010R / WL**

<b>TT - D 3 A - 0 1 0 R / WL *</b>					
<p><b>Probe Length</b></p> <p><b>D</b> 1/2" (12.7mm)</p> <p><b>E</b> 3/4" (19.05mm)</p> <p><b>F</b> 1" (25.4mm)</p> <p><b>H</b> 1-1/2" (38.1mm)</p> <p><b>J</b> 2" (50.8mm)</p>	<p><b>Media Connection</b></p> <p><b>1</b> 1/2" NPT Male</p> <p><b>2</b> 3/8" NPT Male</p> <p><b>3</b> 1/4" NPT Male</p> <p><b>5</b> 3/4" SAE O-Ring (-8)</p> <p><b>6</b> M16 x 1.5</p>	<p><b>Circuit Form</b></p> <p><b>A</b> SPST-NO</p> <p><b>B</b> SPST-NC</p>	<p><b>Fixed Set Point</b></p> <p>40°F – 300°F</p>	<p><b>Set Point Direction</b></p> <p><b>R</b> Rising</p> <p><b>F</b> Falling</p>	<p><b>Electrical Options</b></p> <p><b>WL</b> Wire Leads 6" (152.4mm)</p> <p><b>QC</b> 1/4" Spade Connection</p> <p><b>WP</b> Weather Pack</p> <p><b>MP</b> Metri-Pack</p> <p><b>GG</b> Internal Ground</p>
<p>* Defaults to Screw Terminals</p>					

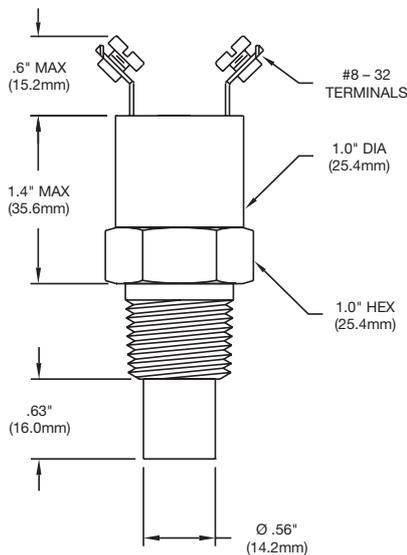
See pages 14 - 15 for additional options available on this model. For custom designs and technical assistance please contact us.



### Features

- Utilizes snap disc approach to sense temperature
- High quality snap action switch
- Factory preset
- Shock and vibration resistant
- Available in a wide range of configurations
- Economical
- NEMA 4, 13

### Dimensions



### Operating Specifications

<b>Set Point Range</b>	65° – 149°C	(150° – 300°F)
<b>Set Point Tolerance</b>	±2.8°C	(±5°F)
<b>Maximum Temperature</b>	163°C	(325°F)
<b>Differential</b>	5 – 8°C	(8 – 16°F)
<b>Current Rating</b>	5 A @ 250 VAC	
	5 A @ 30 VDC (Resistive)	
<b>Media Connection</b>	See Order Chart Below for Options	
<b>Circuit Form</b>	SPST-NO or SPST-NC	
<b>Electrical Connection</b>	See Order Chart Below for Options	
<b>Maximum External Pressure</b>	172 bar	(2500 PSI)

### How to Order

Example: Part Number: TD – 1C – 175R / WP

<b>TD – 1 C – 1 7 5 R / WP *</b>			
<p><b>Media Connection</b></p> <p><b>1</b> 1/2" NPT Male  <b>2</b> 3/8" NPT Male  <b>5</b> 3/4" SAE O-Ring (-8)</p>	<p><b>Circuit Form</b></p> <p><b>A</b> SPST-NO  <b>B</b> SPST-NC  <b>C</b> SPDT</p>	<p><b>Fixed Set Point</b></p> <p><b>150°F – 300°F</b></p>	<p><b>Set Point Direction</b></p> <p><b>R</b> Rising  <b>F</b> Falling</p>
			<p><b>Electrical Options</b></p> <p><b>QC</b> 1/4" Spade Connection  <b>WL</b> Wire Leads 18" (457.2mm)  <b>WP</b> Weather Pack  <b>HR</b> DIN43650A Connector  <b>MP</b> Metri-Pack  <b>WD</b> Deutsch  <b>AT</b> 10 A @ 125/250 VAC  5 A @ 30 VDC  <b>GG</b> Internal Ground  <b>AU</b> Gold Plate/Alloy for low currents</p>
<p>* Defaults to Screw Terminals</p>			

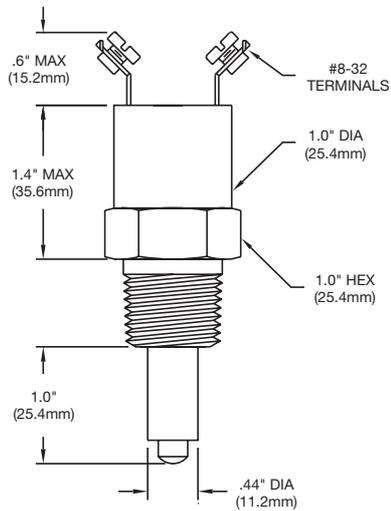
See pages 14 - 15 for additional options available on this model. For custom designs and technical assistance please contact us.



**Features**

- Utilizes bellows mechanism to sense temperature
- High quality snap action switch
- Factory preset
- Shock and vibration resistant
- Available in a wide range of configurations
- NEMA 4, 13

**Dimensions**



**Operating Specifications**

<b>Set Point Range</b>	4° – 149°C	(40° – 300°F)
<b>Set Point Tolerance</b>	±2.8°C	(±5°F)
<b>Maximum Temperature</b>	37,7°C above set point (163°C max)	
<b>Differential</b>	5 – 8°C	(8 – 16°F)
<b>Current Rating</b>	5 A @ 250 VAC	
	5 A @ 30 VDC (Resistive)	
<b>Media Connection</b>	See Order Chart Below for Options	
<b>Circuit Form</b>	SPST-NO or SPST-NC	
<b>Electrical Connection</b>	See Order Chart Below for Options	
<b>Maximum External Pressure</b>	34,5 bar	(500 PSI)

**How to Order**

Example: Part Number: **TM – 6A – 120R / WL**

**TM – 6 A – 1 2 0 R / WL \***

<p><b>Media Connection</b></p> <ul style="list-style-type: none"> <li>1 1/2" NPT Male</li> <li>2 3/8" NPT Male</li> <li>6 M16 x 1.5</li> <li>7 1/2" BSPP Male (G1/2)</li> </ul>	<p><b>Circuit Form</b></p> <ul style="list-style-type: none"> <li>A SPST-NO</li> <li>B SPST-NC</li> <li>C SPDT</li> </ul>	<p><b>Fixed Set Point</b></p> <p>40°F – 300°F</p>	<p><b>Set Point Direction</b></p> <ul style="list-style-type: none"> <li>R Rising</li> <li>F Falling</li> </ul>	<p><b>Electrical Options</b></p> <ul style="list-style-type: none"> <li>WL Wire Leads 18" (457.2mm)</li> <li>QC 1/4" Spade Connection</li> <li>WP Weather Pack</li> <li>HR DIN43650A Connector</li> <li>MP Metri-Pack</li> <li>AT 10 A @ 125/250 VAC 5 A @ 30 VDC</li> <li>GG Internal Ground</li> <li>AU Gold Plate/Alloy for low currents</li> </ul>
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\* Defaults to Screw Terminals

See pages 14 - 15 for additional options available on this model. For custom designs and technical assistance please contact us.

Temperature Switches

Option	Base Thread Size*	TD	TM	TT Model Probe Code					
				D 1/2" Probe	E 3/4" Probe	F 1" Probe	G 1-1/4" Probe	H 1-1/2" Probe	J 2" Probe
1	1/2 NPT Male	•	•	•	•	•	•	•	•
2	3/8 NPT Male	•	•	•	•	•		•	•
3	1/4 NPT Male			•	•	•		•	•
4	3/8 NPT (1PC)		•						
5	3/4 – 16 SAE O-Ring (-8)	•	•	•	•	•		•	•
6	M16 x 1.5		•	•		•			•
7	1/2 BSPP	•	•		•				
8	1/2 NPT (1PC)		•						
9	3/8 NPT (Short)		•						
10	M14 x 1.5 (Nickel Plated)				•				
11	M14 x 1.5				•	•			
12	1/2 NPT (Nickel Plated)		•				•		
13	1/4 NPT (316SS)			•		•			
14	1/2 BSPP Extended		•						
15	3/4 – 16 SAE O-Ring (-8) Short		•						
16	3/8 – 19 BSPT/JIS	•	•	•					
17	M18 x 1.5 SAE J2244	•	•	•	•	•			
18	1/4 NPT (Nickel Plated)			•	•				
19	1/2 NPT (316SS-1PC)		•			•			
20	1/2 NPT (Very Short)		•						
21	3/8 NPT (Very Short)		•						
22	M16 x 1.5 (Flare)				•				
23	1/2 BSPT (R1/2)		•						
24	1/2 NPT (316SS)					•			
25	3/8 NPT (Nickel Plated) 1PC		•						
26	M14 x 1.5 SAE J2244			•	•	•			
27	M22 x 1.5 SAE J2244	•				•			
28	1/4 – 19 BSPT				•				
29	3/8 – 19 BSPP				•			•	
30	3/8 NPT (316SS)			•	•	•			
31	3/4 – 16 UNF (304)SS		•						
32	M16 x 1.5 (SAE)								
33	5/8 – 18 SAEJ 513			•	•				
34	1/2 NPT (Short)		•						
35	M12 x 1.5			•		•			
36	3/4 – 16 SAE O-Ring (Nickel Plated)								
37	M14 x 1.5 Taper Thread								
38	9/16 SAE-6 J514								
39	M16 x 2.0			•					
40	1/2 – 20 UNF								
41	3/8 – 24 SAE			•					
42	1/8 NPT			•		•			
43	1/4 – 19 BSPP					•			
44	M16 x 1.5 303 SS					•			
45	1/2 BSPP 303 SS	•							
46	M14 x 1.25					•			
47	M16 x 1.5 45° Flare			•		•			
48	7/16 – 20 SAE O-Ring			•		•			
49	3/4 – 16 UNF Straight (Washer Sealed)			•					

Temperature Switch Part Number Configuration

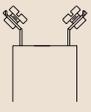
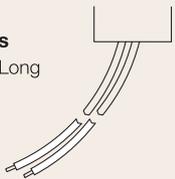
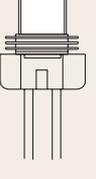
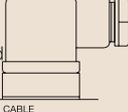
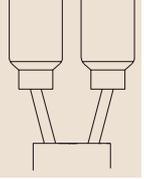
Note: Complete open boxes only. Shaded boxes should have been previously completed on individual switch pages.

Model	Probe Length	Media Connector	Circuit Form	Set Point	Setting Direction	Wire Length Settings	Electrical Connection	Additional Options 1	Additional Options 2	Additional Options 3	Variant*
[ ]	-	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

<p><b>Wire Length Settings</b></p> <ul style="list-style-type: none"> <li>1 3" Wire Length (76.2mm)</li> <li>2 6" Wire Length (152.4mm)</li> <li>3 12" Wire Length (304.8mm)</li> <li>4 18" Wire Length (457.2mm)</li> <li>5 24" Wire Length (609.6mm)</li> <li>6 36" Wire Length (914.4mm)</li> <li>7 48" Wire Length (1219.2mm)</li> <li>8 60" Wire Length (1524mm)</li> <li>9 Special Wire Length</li> </ul>	<p><b>Electrical Connection</b></p> <ul style="list-style-type: none"> <li>HF DIN43650A 1/2" Conduit (Plug &amp; Receptacle)</li> <li>HH DIN43650A (Plug Only)</li> <li>HR DIN43650A Strain Relief (Plug &amp; Receptacle)</li> <li>HP 9.4mm DIN (Plug Only)</li> <li>HM 9.4mm DIN (Plug &amp; Receptacle)</li> <li>MP Metri-Pack Female 280 Series Sealed (Nason Standard)</li> <li>NP Metri-Pack Male 280 Series Sealed</li> <li>CP Metri-Pack Female 150 Series Sealed</li> <li>DP Metri-Pack Male 150 Series Sealed</li> <li>PP Boot (Military Connector)</li> <li>QC 1/4" Male Spade Quick Connect</li> <li>WL Wire Leads</li> <li>WP Weather Pack (Female)</li> <li>TP Weather Pack (Male)</li> <li>EL 1/2" NPT Male Conduit</li> <li>EF 1/2" NPT Female Conduit</li> <li>WD Deutsch Receptacle</li> <li>PD Deutsch Plug</li> <li>HL Lighted DIN (Plug &amp; Receptacle)</li> <li>PT 10 – 32 Post</li> <li>ES ELST 412</li> <li>CL Sheathed 18 AWG Primaries</li> <li>SL SJO Cable</li> </ul>	<p><b>Additional Options</b></p> <p><b>1. Contacts</b></p> <ul style="list-style-type: none"> <li>AT 10 A at 125/250 VAC 5 A @ 30 VDC</li> <li>AU Gold Plate/Alloy for low currents</li> <li>AH 25 A @ 277 VAC 5 A @ 30 VDC</li> </ul> <p><b>2. Ground</b></p> <ul style="list-style-type: none"> <li>GG Internal Ground</li> </ul> <p><b>3. Other</b></p> <ul style="list-style-type: none"> <li>VL Convolute (for wire leads)</li> </ul>	<p><b>Variant*</b></p>
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Basic electrical connection options

<p><b>Screw Terminals (Sortie vis)</b> #8 – 32 Rated IP 00</p> 	<p><b>QC Quick Connects (Languettes 6.35)</b> 1/4" Male Spades Rated IP 00</p> 	<p><b>WP** Weather Pack</b> Female "Tower" Type 18 AWG Wire 6" Complete Length Rated IP 65</p> 	<p><b>HH Male DIN</b> DIN 43650 – A Type Plug Only Rated IP 65</p>   <p><small>PIN ASSIGNMENTS: #1 COMMON #2 NORMALLY CLOSED #3 NORMALLY OPEN #4 NOT USED</small></p>
<p><b>WL* Wire Leads</b> 18 AWG Wire, 18" Long Rated IP 65</p> 	<p><b>EF* Female Conduit</b> 1/2" – 14 NPT Female Connection Includes WL Option Rated IP 65</p> 	<p><b>MP** Metri-Pack</b> Female 280 Series 18 AWG Wire 6" Complete Length Rated IP 65</p> 	
<p><b>EL* Male Conduit</b> 1/2" – 14 NPT Male Connection Includes WL Option Rated IP 65</p> 	<p><b>HR Complete DIN</b> DIN 43650 – A Type Plug and Receptacle Included Rated IP 65</p>  <p><small>CABLE CLAMP FOR .18" (4.5mm) THRU .28" (7mm) DIA CABLE PIN ASSIGNMENTS: #1 COMMON #2 NORMALLY CLOSED #3 NORMALLY OPEN #4 NOT USED</small></p>	<p><b>PP Waterproof Mil Connector</b> MS 27142 Style 16 AWG Wire Rated IP 66</p> 	

Note: Not all options available on all models.

\* Color Code: Black – Common Red – Normally Open Blue – Normally Closed

\*\* Pin Assignments (C Circuit): A – Normally Open B – Common C – Normally Closed

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	•		
Pydral (135.150.A200.312.AC.F-9&625)			
Shell Iris 902	•		
Silicone Greases	•		
Silicone Oils	•		
Skydrol 500 & 7000		•	
Soap Solutions	•		
Steam below 320°F		•	
Stoddard Solvent	•		
Sulfuric Acid			•
Tolulene			•
Transmission Fluid A	•		
Trisodium Phosphate	•		
Turpentine	•	•	
Water to 220°F (104°C)	•		
Water to 302°F (150°C)		•	

**Note:** Other diaphragm materials are available. Consult factory for stock.

### Temperature Conversions

Formula  $^{\circ}\text{C} = 5/9 (^{\circ}\text{F} - 32^{\circ})$   $^{\circ}\text{F} = (9/5 ^{\circ}\text{C}) + 32^{\circ}$

$^{\circ}\text{C}$	$^{\circ}\text{F}$								
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	H <sub>2</sub> O (15°C)	mmHg (0°C)	"Hg (0°C)	Millibar	Bar	Kg/Cm <sup>2</sup>	kPa
PSI	•	27.70	51.71	2.036	68.95	0.06895	0.07031	6.895
"H <sub>2</sub> O (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/Cm <sup>2</sup>	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	•

Pressure Switches

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

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 \_\_\_\_\_

**Temperature Switches**

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

**1** Media \_\_\_\_\_

**2** Set Point: Rising \_\_\_\_\_ (°F or °C) Falling \_\_\_\_\_ (°F or °C)

**3** Differential:  Yes  No

**4** Circuit Form:  SPST-NO  SPST-NC  SPDT

**4** Circuit: Electrical  AC \_\_\_\_\_ V  DC \_\_\_\_\_ V  
Load (Amps) \_\_\_\_\_  Resistive  Inductive Inrush \_\_\_\_\_

**5** Pressure: System (Normal) \_\_\_\_\_ (Maximum) \_\_\_\_\_

**6** Temperature: System (Normal) \_\_\_\_\_ (Maximum) \_\_\_\_\_ (Minimum) \_\_\_\_\_  
Ambient (Normal) \_\_\_\_\_ (Maximum) \_\_\_\_\_ (Minimum) \_\_\_\_\_

**7** Media Connection \_\_\_\_\_

**8** Electrical Connection \_\_\_\_\_

**9** Cycles: \_\_\_\_\_ per hour Other (describe) \_\_\_\_\_

**10** Other Special Requirements (attach separate sheet if necessary) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**11** System:  New Design  Redesign

**12** Application: What will switch control? (Attach circuit diagrams if available) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**13** Prototype(s) Required by (Date) \_\_\_\_\_

**14** Estimated Annual Usage \_\_\_\_\_ Target Net Price \_\_\_\_\_

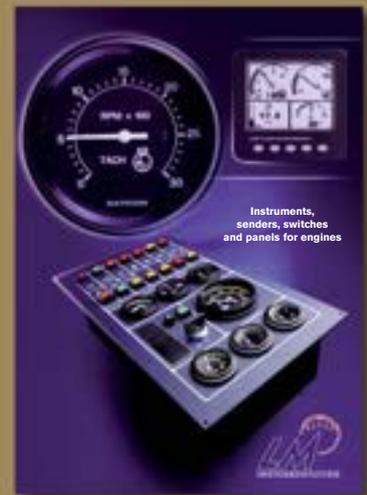
Firm \_\_\_\_\_

Address \_\_\_\_\_

Project Number or Name \_\_\_\_\_

Name & Title \_\_\_\_\_ Phone \_\_\_\_\_

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