

# Terminal Block Diaphragm Switch

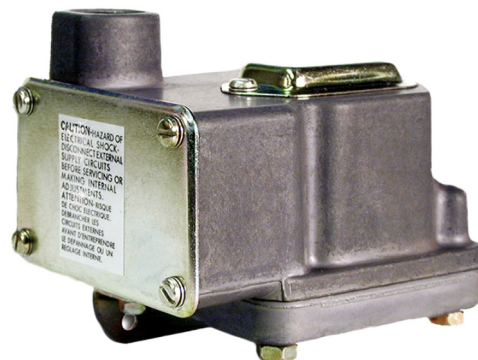
## D1T, D2T Series

### Features

- ▶ High reliability
- ▶ High accuracy
- ▶ NEMA 4
- ▶ Ideal for pressure and vacuum applications
- ▶ Single and dual switching capability
- ▶ Tamper-proof external adjustment

### Applications

- ▶ Machine tools
- ▶ Pneumatics
- ▶ Medical
- ▶ Marine & shipbuilding
- ▶ Pump & compressor monitoring
- ▶ Oil & gas
- ▶ Water equipment
- ▶ Mining
- ▶ Lubrication equipment



### General Specifications\*

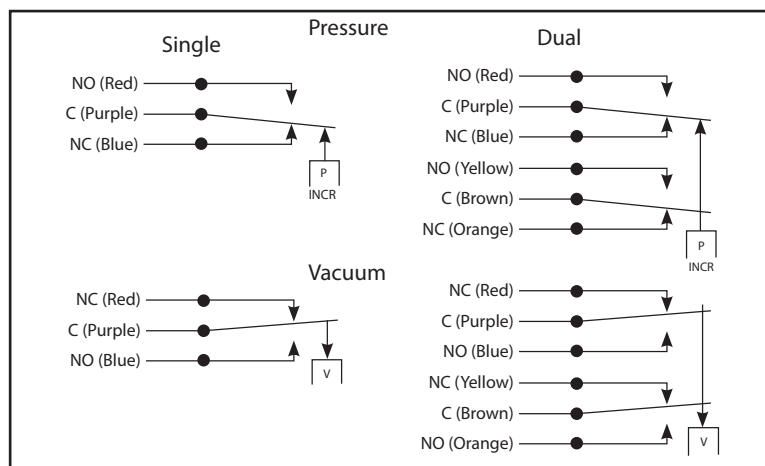
Accuracy:	± 0.5% of the adjustable range	Approvals (cont.):	
Switch:		PED (European):	Compliant to PED 97/23/EC
Type:	Single pole double throw (SPDT) Snap Action; single circuit	Temperature Range:	
Rating:	10 amps @ 125/250 VAC; 3 amps @ 480 VAC (Class A or H limit switch). Consult sales drawing for ratings of optional limit switches.	Operating:	-40° to +165°F (-40° to +74°C) Hermetic Div. 2 models: -4° to +140°F (-20° to +60 °C)
Wetted Parts:		Storage:	-65° to +200°F (-54° to +93°C)
Process Fitting:	304 stainless steel	Adjustment Instructions:	
Diaphragm:	17-7 PH stainless steel	Pressure:	Turn adjustment screw counterclockwise to raise actuation point.
Enclosure:	Anodized aluminum	Vacuum:	Turn adjustment screw clockwise to increase setpoint (higher vacuum).
Electrical Connection:	Terminal block through 1/2" NPT conduit connector	Options:	- NEMA 4X enclosure - Cleaned for oxygen service - Factory pre-set - Six-pin terminal block
Enclosure Rating:	NEMA 4	Shipping Weight:	2.0 lbs. approximate
Pressure Connection:	1/4" NPT Female		
Approvals:			
UL (Optional):	D1T models may be ordered as UL listed on request. D2T models may be ordered as UL Recognized components on request. File No. E42816		
CSA (Optional):	All models may be ordered as CSA listed under Class 3231 02, File LR22355 on request.		

\* See product configurator for additional options.

### Wiring Code

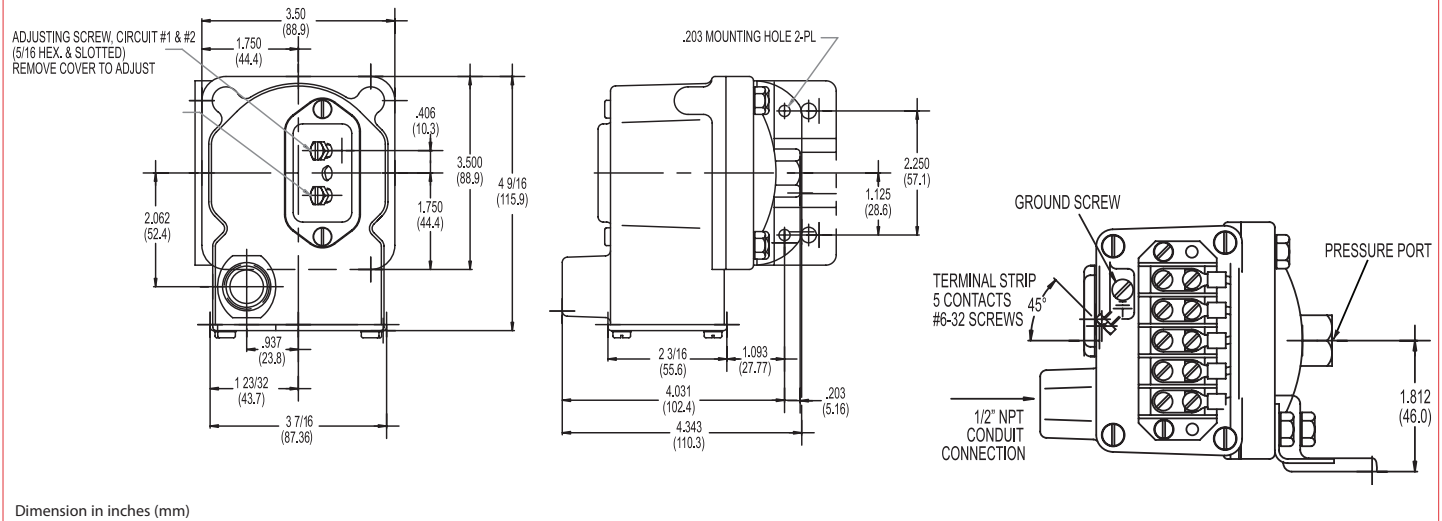
Lead	Circuit #1		Circuit #2	
	Pressure	Vacuum	Pressure	Vacuum
Normally Closed	Blue	Red	Orange	Yellow
Common	Purple	Purple	Brown	Brown
Normally Open	Red	Blue	Yellow	Orange

### Wiring Diagram



## D1T, D2T Series

# Technical Drawing



## Product Configurator

**Product Configurator**

	Example	D1T	-A	80SS		-U																													
<b>H</b>	Hermetically sealed limit switch option - Class I, Division II (requires AA, CC, GH or HH limit switch)																																		
		<b>* Highlighted options represent those most frequently used. Select these common options for improved availability. (5/21)</b>				<b>Options</b> -U UL Approved (Industrial Control) -CS CSA Approved Model -Z1 <sup>3</sup> Oxygen cleaned -FX NEMA 4X enclosure -TC Temperature stabilization and pre-cycle (non-agency) -L6 6-Pin Terminal Block (for D2T models only. Non-UL listed) -Sxxx Factory pre-set (consult factory)																													
<b>Base Configuration</b>																																			
<b>D1T</b>	Single setpoint housed with terminal block																																		
<b>Limit Switch<sup>1</sup></b>																																			
<b>-A<sup>4</sup></b>	10 amps @ 125/250 VAC; 3 amps @ 480 VAC; (standard for pressure range 3SS, 80SS or 150SS)																																		
<b>-C</b>	10 amps @ 125/250/480 VAC; 2 amps @ 600 VAC; 0.1 amps @ 125 VDC; 0.05 amps @ 250 VDC																																		
<b>-H</b>	10 amps @ 125/250 VAC; 3 amps @ 480 VAC; (standard for pressure range 2SS or 18SS)																																		
<b>-M</b>	10 amps @ 125/250 VAC; 3 amps @ 480 VAC; 0.5 amps @ 125 VDC; 0.25 amps @ 250 VDC (not -U or -UL approved)																																		
<b>-GH</b>	1 amp @ 125 VAC; 1 amp @ 24 VDC with gold contacts																																		
<b>-CC</b>	Hermetically sealed; 10 amps @ 125/250 VAC (not available on 2SS or vacuum models)																																		
<b>-HH</b>	Hermetically sealed; 5 amps @ 125/250 VAC (not available on 2SS or vacuum models)																																		
		<b>Adjustable Range</b>				<b>Pressure Connection</b> <b>Blank</b> Std 1/4" NPT female pressure connection																													
		<table border="1"> <thead> <tr> <th rowspan="3"></th> <th colspan="4">Adjustable Range (PRESSURE)</th> <th rowspan="3">Approx. Deadband<sup>2</sup> (Actuation Value) psi (bar)</th> <th rowspan="3">Proof Pressure psi (bar)</th> </tr> <tr> <th colspan="2">Decreasing - psi (bar)</th> <th colspan="2">Increasing - psi (bar)</th> </tr> <tr> <th>Min</th> <th>Max</th> <th>Min</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>2SS<sup>3</sup></td> <td>0.018 (.0)</td> <td>1.65 (.1)</td> <td>0.068 (.0)</td> <td>1.7 (.1)</td> <td>.02 - .05 (.0 - .0)</td> <td>3 (.2)</td> </tr> <tr> <td>3SS</td> <td>.03 (.00)</td> <td>2.85 (.2)</td> <td>.18 (.02)</td> <td>3 (.2)</td> <td>.07 - .15 (.0 - .01)</td> <td>10 (.7)</td> </tr> </tbody> </table>					Adjustable Range (PRESSURE)				Approx. Deadband <sup>2</sup> (Actuation Value) psi (bar)	Proof Pressure psi (bar)	Decreasing - psi (bar)		Increasing - psi (bar)		Min	Max	Min	Max	2SS <sup>3</sup>	0.018 (.0)	1.65 (.1)	0.068 (.0)	1.7 (.1)	.02 - .05 (.0 - .0)	3 (.2)	3SS	.03 (.00)	2.85 (.2)	.18 (.02)	3 (.2)	.07 - .15 (.0 - .01)	10 (.7)	
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3SS	.03 (.00)	2.85 (.2)	.18 (.02)	3 (.2)	.07 - .15 (.0 - .01)	10 (.7)
18SS	.4 (.03)	17.74 (1.2)	.66 (.05)	18 (1.2)	.12 - .26 (.01 - .02)	60 (4.1)
80SS	.5 (.03)	76.6 (5.3)	3.9 (.3)	80 (5.5)	1.6 - 3.4 (.1 - .2)	160 (10.9)
150SS	1.5 (.1)	144 (9.9)	7.5 (.5)	150 (10.3)	2.3 - 6 (.2 - .4)	300 (20.4)

	Adjustable Range (VACUUM)				Approx. Deadband <sup>2</sup> (Actuation Value) In. Hg	Proof Pressure In. Hg
	Decreasing - In. Hg		Increasing - In. Hg			
	Min	Max	Min	Max		
3SS	0.06	5.72	0.34	6	.14 - .28	6
18SS	0.8	29.2	1.6	30	.4 - .8	30

NOTES:  
<sup>1</sup> Consult Supplemental Guide for specific deadband values

<sup>2</sup> Deadband values indicated when used with the standard "H" limit switch

<sup>3</sup> Not available with hermetically sealed limit switches (no CSA)

<sup>4</sup> A limit switch does not have UL/CSA