

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
Switch: Type:	Single pole double throw (SPDT) Snap Action; single circuit
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.
Wetted Parts: Process Fitting:	304 stainless steel
Diaphragm:	17-7 PH stainless steel
Enclosure:	Anodized aluminum
Electrical Connection:	Terminal block through 1/2" NPT conduit connector
Enclosure Rating:	NEMA 4
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.

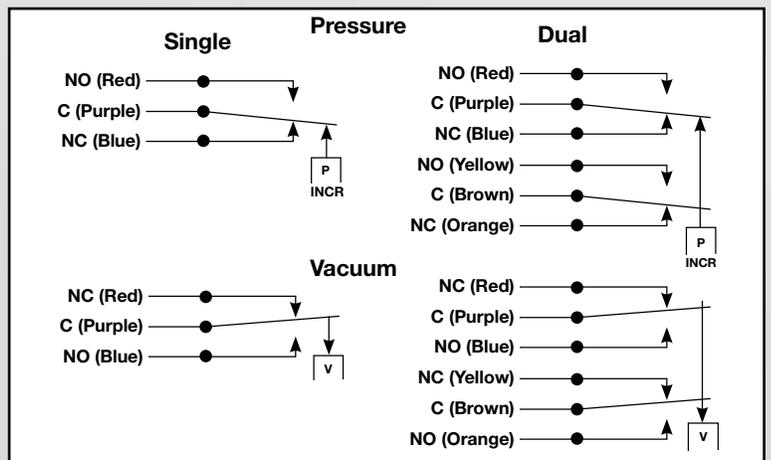
Approvals (cont.): PED (European):	Compliant to PED 97/23/EC
Temperature Range: Operating:	-40° to +165°F (-40° to +74°C) Hermetic Div. 2 models: -4° to +140°F (-20° to +60 °C)
Storage:	-65° to +200°F (-54° to +93°C)
Adjustment Instructions: Pressure:	Turn adjustment screw counterclockwise to raise actuation point.
Vacuum:	Turn adjustment screw clockwise to increase setpoint (higher vacuum).
Options:	- NEMA 4X enclosure - Cleaned for oxygen service - Factory pre-set - Six-pin terminal block
Shipping Weight:	2.0 lbs. approximate

* 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

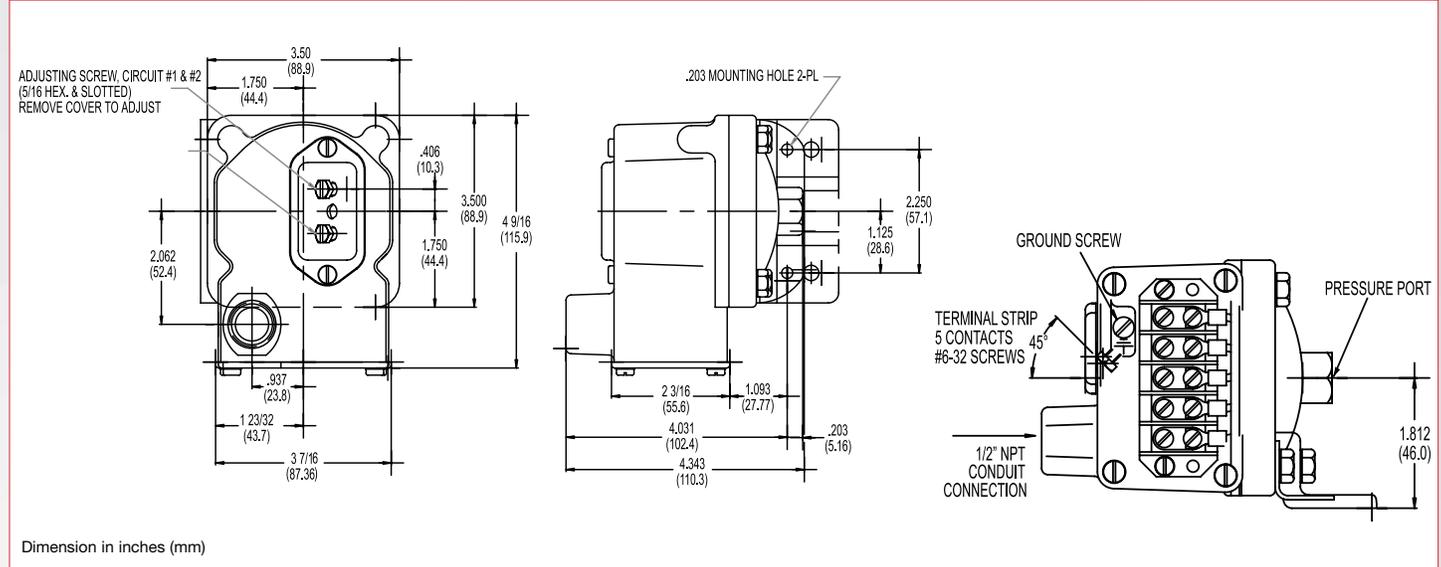
Wiring Diagram



Terminal Block Diaphragm Switch

D1T, D2T Series

Technical Drawing



Product Configurator

Example	D1T	-A	80SS	-U
---------	-----	----	------	----

H Hermetically sealed limit switch option - Class I, Division II (requires AA, CC, GH or HH limit switch)

Base Configuration

D1T	Single setpoint housed with terminal block
D2T	Dual setpoint housed with terminal block

Limit Switch¹

-A	10 amps @ 125/250 VAC; 3 amps @ 480 VAC; (standard for pressure range 3SS, 80SS or 150SS)
-B	10 amps @ 125/250/480 VAC; 2 amps @ 600 VAC; 0.05 amps @ 125 VDC; 0.03 amps @ 250 VDC
-C	10 amps @ 125/250/480 VAC; 2 amps @ 600 VAC; 0.1 amps @ 125 VDC; 0.05 amps @ 250 VDC
-H	10 amps @ 125/250 VAC; 3 amps @ 480 VAC; (standard for pressure range 2SS or 18SS)
-M	10 amps @ 125/250 VAC; 3 amps @ 480 VAC; 0.5 amps @ 125 VDC; 0.25 amps @ 250 VDC (not -U or -UL approved)
-GH	1 amp @ 125 VAC; 1 amp @ 24 VDC with gold contacts (not -UL approved)
-AA	Hermetically sealed; 4 amps @ 125/250 VAC (not available on 2SS or vacuum models)
-CC	Hermetically sealed; 10 amps @ 125/250 VAC (not available on 2SS or vacuum models)
-GH	Hermetically sealed; 1 amp @ 125 VAC with gold contacts (not available on 2SS or vacuum models)
-HH	Hermetically sealed; 5 amps @ 125/250 VAC (not available on 2SS or vacuum models)

Options

-U	UL Approved (Industrial Control)
-CS	CSA Approved Model
-Z1 ³	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)

Pressure Connection

Blank	Std 1/4" NPT female pressure connection
-P2	1/2" NPT female pressure connection

Adjustable Range

	Adjustable Range (PRESSURE)				Approx. Deadband ² (Actuation Value) psi (bar)	Proof Pressure psi (bar)
	Decreasing - psi (bar)		Increasing - psi (bar)			
	Min	Max	Min	Max		
2SS ³	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)
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 ² (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:

¹ Consult Supplemental Guide for specific deadband values

² Deadband values indicated when used with the standard "H" limit switch

³ Not available with hermetically sealed limit switches (no CSA)