

Pressure

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, viton seals
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):	All models may be ordered as UL listed. File No. E42816

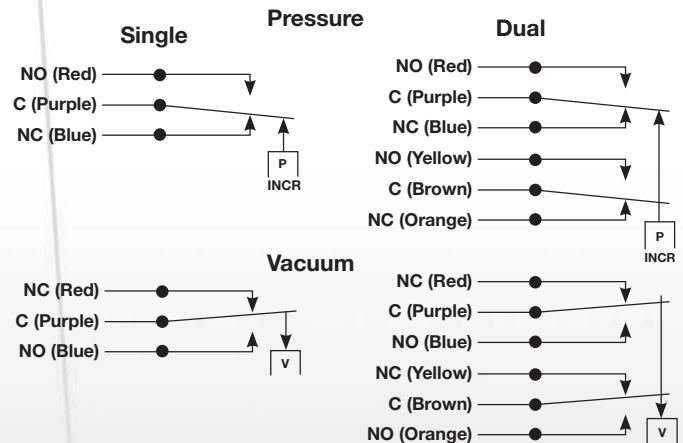
Approvals (cont.): CSA (Optional):	All models may be ordered as CSA listed under Class 3231 02, File LR22355 on request.
PED (European):	Compliant to PED 97/23/EC
Temperature Range: Operating:	-65° to +165°F (-54° to +74°C)
Storage:	-65° to +200°F (-54° to 93°C)
Adjustment Instructions: Pressure:	Turn 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

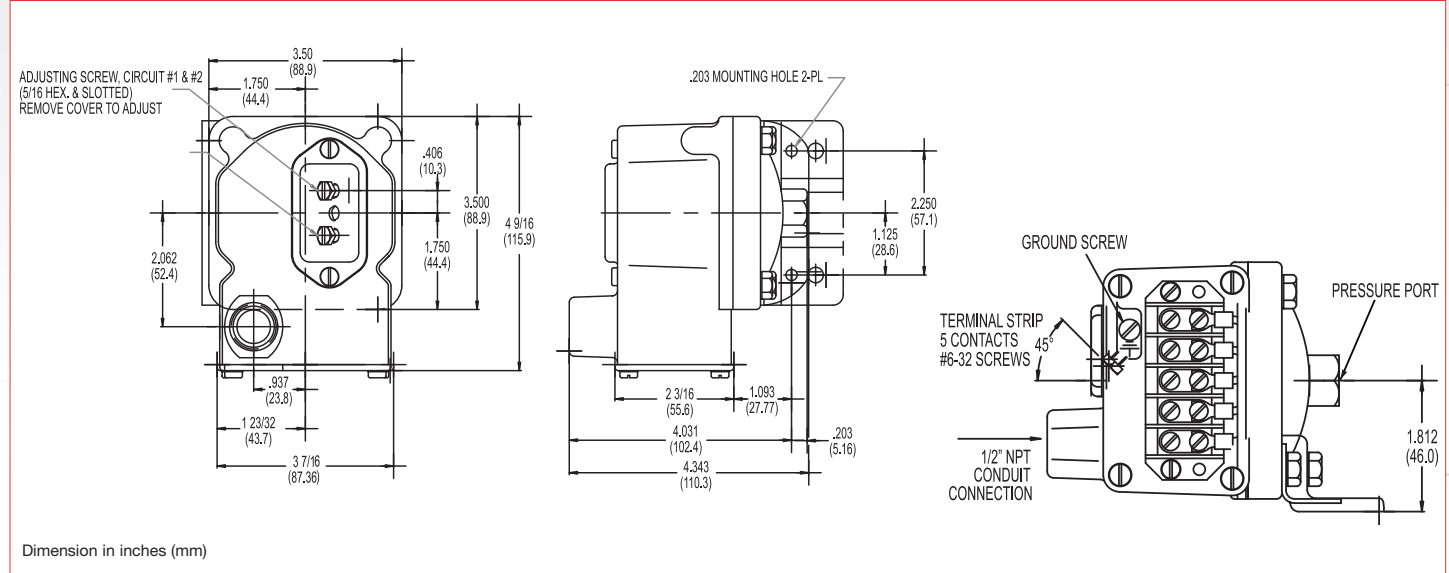
Wiring Diagram



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Technical Drawing



Product Configurator

Example	D1T	-A	80SS	-U
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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)
-J	10 amps @ 125/250 VAC; 3 amps @ 480 VAC; (comes with an elastomer boot, not -U or -UL approved)
-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	Oxygen cleaned
-FX	NEMA 4X enclosure
-TC	Temperature stabilization and pre-cycle
-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	20
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" limit switch

³ Not available with hermetically sealed limit switches