

Metal Diaphragm Pressure Switches

Type **D1T-.../D2T-...**

Mechanical single/dual pressure switch
Repeatability $\pm 1.0\%$ at constant temperature

Features

Metal diaphragm pressure switch
 Wetted parts welded.
 Direct acting, no friction, high accuracy

Adjustment ranges

0.005 ... 10.3 bar and
 -0.006 ... -1 bar (Vaccum)

Applications

Machine and tool engineering,
 Autoclaves, pump control,
 Refrigerant monitoring, chemical industry
 Ship building applications



Index: F

Technical Data

Wetted parts:	Stainless steel 17-7PH/SS304
Repeatability:	$\pm 1\%$ at constant temperature
Switching rate:	max. 20/min
Temperature range:	-40 °C... +75 °C
Protection class:	IP65
Housing:	powder coated aluminium
Process connection:	1/4" NPT female thread Optional: 1/2" NPT female thread (P2)
Electrical connection:	WAGO terminal and cable gland M20x1.5; clamping range $\varnothing 5 \dots 11$ mm

Electrical load capacity and hysteresis:	Many micro switch versions with different switching powers and hysteresis are available and make it possible to make customized changes.
Weight:	D1T-...: approx. 1.0 kg D2T-...: approx. 1.1 kg
Set point adjustment:	Turn the adjustment screw clockwise to decrease the set point
Intrinsically safe:	The switches are also available for intrinsically safe applications. Add "Exi" in case of ordering. Maximum rating according to ATEX: U _{max} = 28 V I _{max} = 50 mA
Approval:	---

Pressure ranges

Pressure range code	Adjustment range [bar]		Max. operating pressure [bar]	Proof pressure [bar] (short term)	Max. hysteresis of the different switches in bar (end of range)	
	Increasing press.	Decreasing press.			H, GH [bar]	M, GM [bar]
Overpressure						
2SS	0.005 ... 0.11	0.001 ... 0.11	0.15	0.2	0.004	0.006
3SS	0.012 ... 0.20	0.002 ... 0.196	0.5	0.7	0.004	0.010
18SS	0.050 ... 1.20	0.030 ... 1.20	3.0	4.0	0.010	0.040
80SS	0.300 ... 5.50	0.030 ... 5.30	8.0	10.7	0.110	0.240
150SS	0.500 ... 10.30	0.100 ... 9.90	15.0	20.0	0.180	0.420
Vacuum						
3SS	-0.006 ... -0.20	-0.002 ... -0.196	0.15	0.2	0.004	0.009
18SS	-0.040 ... -1.00	-0.020 ... -0.970	0.5	1.0	0.020	0.060

Specifications are subject to changes without notice.

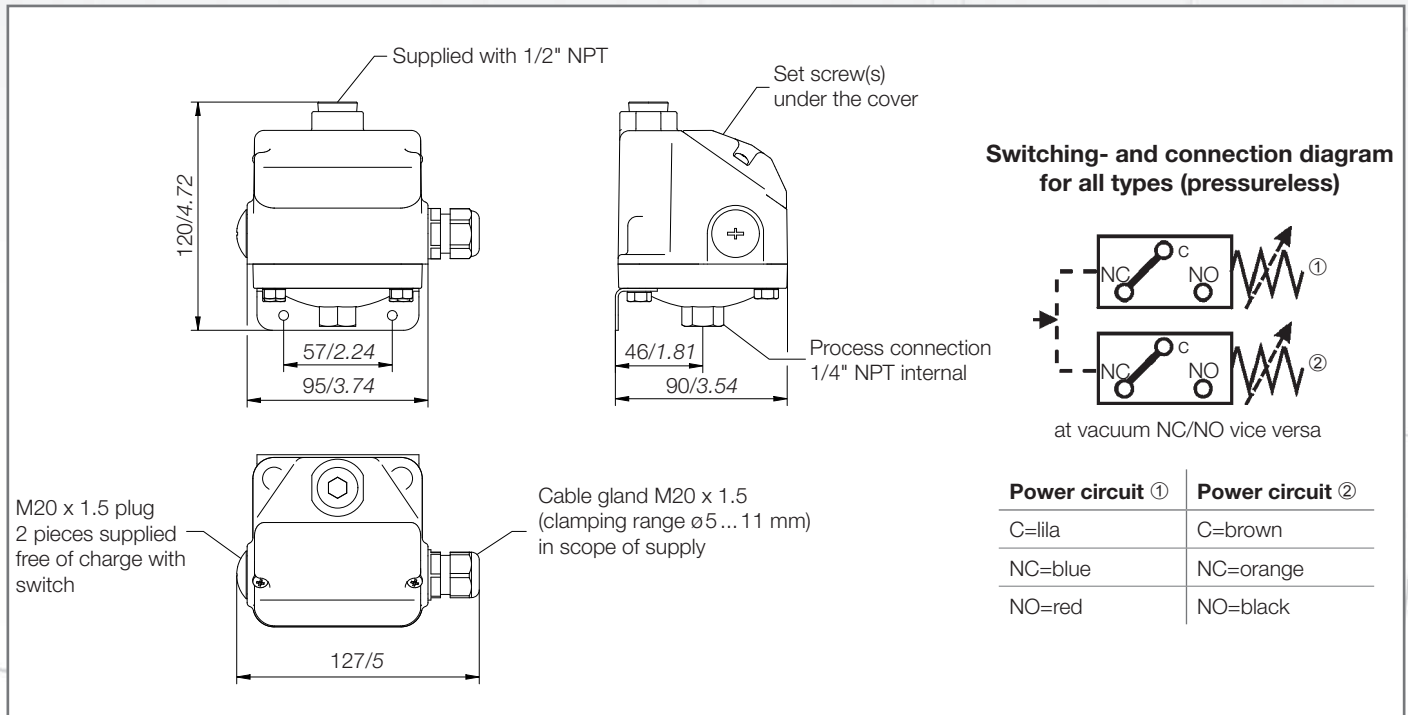
Pressure

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Type D1T-.../D2T-...

Dimensions (in mm / inch)

Index: F



Electrical ratings

Micro switch	Special features	Volt AC 50/60 Hz	Ind. load A	Res. load A	Volt DC	Ind. load A	Res. load A	Comments
H	Micro switch with silver contacts	125 250	10 10	10 10	6 to 24	0.50	0.5	Small hysteresis; High AC-/ low DC-load
M	Micro switch with silver contacts	125 250	10 10	10 10	12 24 250	5.00 1.00 0.25	15.0 2.0 0.4	Medium hysteresis; High AC- and DC-loads
GH	Micro switch with gold-plated contacts for low voltage and/or low current	125	1	1	24	1.00	1.0	Small hysteresis
GM		30	0.1	0.1	30	0.10	0.1	Medium hysteresis

480 V AC and 15 A only upon request

Options

	D1T-...		D2T-...
ST1	Plug, 3-pin + E, DIN EN 175 301-801-A (prev. DIN 43650)	ST3	Plug, 6-pin + E, DIN 43651
ST2	Amphenol plug 4-pin + E	EXI	for intrinsically safe application
EXI	for intrinsically safe application		

Ordering

Example for order number



Your order number

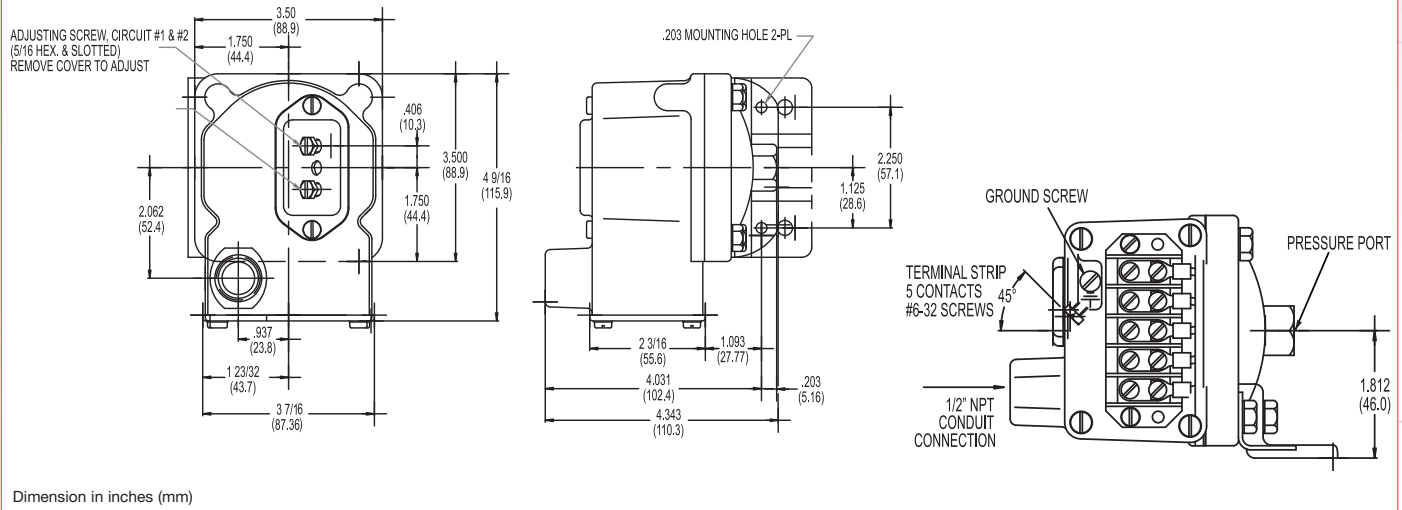


Specifications are subject to changes without notice.

Terminal Block Diaphragm Switch

D1T, D2T Series

Technical Drawing



Product Configurator

Example	D1T	-A	80SS		UL
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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
-UL	UL Approved Model*
-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)

* For hermetically sealed

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

Pressure Connection

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

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