

# Metal Diaphragm Pressure Switches

## 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
- ▶ Approvals: Ex ia, UL, CSA, marine, SIL2/3 (IEC 61508)

### 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



### 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:	Top part: aluminium powder coated bottom part: aluminium anodized
Process connection:	1/4" NPT female thread Optional: 1/2" NPT female thread (P2)
Electrical connection:	WAGO terminal and cable gland M20 x 1.5; clamping range $\varnothing$ 5 ... 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. In this case we recommend gold contacts. Add "Exi" in case of ordering. Maximum rating according to ATEX: U <sub>max</sub> = 28 V I <sub>max</sub> = 50 mA
Approval:	---

### Pressure Ranges

Pressure range code	Adjustment range [bar]		Max. operating pressure [bar]	Proof pressure [bar]	Max. hysteresis of switch types in bar (end of range)	
	Increasing press.	Decreasing press.			short term	H, GH [bar]
Overpressure						
2SS	0.005 ... 0.11	0.001 ... 0.11	0.13	0.2	0.004	0.006
3SS	0.012 ... 0.20	0.002 ... 0.196	0.47	0.7	0.005	0.010
18SS	0.050 ... 1.20	0.030 ... 1.20	2.7	4.0	0.018	0.040
80SS	0.300 ... 5.50	0.030 ... 5.30	7.1	10.7	0.110	0.240
150SS	0.500 ... 10.30	0.100 ... 9.90	13.3	20.0	0.190	0.420
Vacuum						
3SS	-0.006 ... -0.20	-0.002 ... -0.196	0.13	0.2	0.004	0.009
18SS	-0.040 ... -1.00	-0.020 ... -0.970	0.67	1.0	0.030	0.060

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### Dimensions (mm / inch)

Supplied with 1/2" NPT

Set screw(s) under the cover

Process connection 1/4" NPT internal

M20 x 1.5 plug 2 pieces supplied free of charge with switch

Cable gland M20 x 1.5 (clamping range  $\varnothing$ 5...11 mm) in scope of supply

Switching- and connection diagram for all types (pressureless)

at vacuum NC/NO vice versa

Power circuit A	Power circuit A
C=illa	C=brown
NC=blue	NC=orange
NO=red	NO=black

### 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 contacts for low voltage and/	125	1	1	24	1.00	1.00	Small hysteresis
GM	or low current (e. g. "Exi")	30	0.1	0.1	30	0.10	0.1	Medium hysteresis

### Options

	D1T...		D2T...
ST1	Plug, 3-pin + E, DIN EN 175 301-801 (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		

### Order Code

Example for order number

Type	Micro switch	Pressure range code	Options	Approval
D1T or D2T	GH	3SS	ST2	EXI

Your order number

Type	Micro switch	Pressure range code	Options	Approval