



**TPDA-C is a differential pressure transmitter for air and neutral gases. The unit has LED-display and built-in controlling function. The main application is for pressure control in air handling systems.**

- \* Selectable measuring range 0...100, 0...300, 0...500, 0...1000 Pa
- \* Pressure signal output 0...10 V and 4...20 mA
- \* Controls output 0...10 V
- \* Adjustable damping of the measuring signal
- \* Zero-point adjustment
- \* LON-version available

#### Function

The differential pressure transmitter TPDA-C is based on microprocessor technology and has a logical menu system. Setting of the working range, damping, and zero-point adjustment is done using buttons under the lid.

#### Controlling function

TPDA-C-C has a built-in controller with PID-function. All parameters are adjustable. The control function has a 0...10 V DC output signal.

#### Measuring technique

Pressure measurements are obtained by means of a sensor that uses a ceramic measuring beam. The differential pressure affects a membrane that works directly against the measuring beam. A thick-film resistor is mounted in the bending area of the measuring beam. When the measuring beam bends the resistance value changes. The change is converted to a proportional output signal via the built-in electronics.

The small number of moving parts in the transmitter, permits a high degree of accuracy and short response time. Another important quality is that the ceramic element has very good long-term stability.

#### Adjustable working range

TPDA-C can easily be set between the working ranges 0...100, 0...300, 0...500, 0...1000 Pa.

#### Electronical damping

The pressure transmitter has electronic damping to counteract rapid fluctuations in the output signal, this function is adjustable 0...20 s.

#### Zero-point adjustment

The output can easily be zero-point adjusted, see overleaf.

TPDA-C is supplied complete with connection set containing two pressure outlets and 2 m of hose.

Supply voltage	24 V AC/DC +/-10% 50-60 Hz
Power consumption	5 VA
Ambient temperature	0...50°C
Ambient humidity	Max. 90% RH
Medium temperature	0...70°C
Storage temperature	-40...+50°C
Load resistance	>2 Kohm (0...10 V), < 500 ohm (4...20 mA)
Maximum overload	20 kPa
Accuracy	+/- 1 % vid 20°C
Temperature dependence	+/- 0.05% /°C
Degree of protection	IP54
<b>CE</b>	This product conforms with the requirements of European EMC standards CENELEC EN 50081-1 and EN 50082-1 and carries the CE mark

#### Outputs

Pressure signal	0...10 V and 4...20 mA, corresponding to selected working range
Control signal	0...10 V

#### Settings

Measuring range	(menu -01)	0...100 / 0...300 / 0...500 / 0...999 Pa, selectable
Setpoint	(menu -02)	0...999 Pa depending on selected measuring range
Damping	(menu -03)	0...20 s
P-band	(menu -04)	0...999%
I-time	(menu -05)	0...300 s
D-factor	(menu -06)	0...999
Zero-point adjustment	(-08)	By depressing Enter, the output signal and the display adjusts to zero

#### Connections

Electric	Screw block terminals. Flexible cable is recommended.
Pressure	Hose nippel. For 6 mm hose.

#### Indication

Display	LED, three digits
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### Settings in the menu system

All settings are made using the three buttons. Two buttons (Up, Down) are used to scroll upwards and downwards between the possible settings. The third button (Enter) is used to select the alternative which currently appears on the display. If the buttons are left unattended for a period of 10 seconds the unit automatically returns to running mode.

#### Settings

Press Enter. The display shows -01.  
Press the Up button until the display shows the required menu. Press Enter and the display shows the currently set value. The display alternates between the value and the menu number.  
To change the value press the Up or Down buttons until the required value appears. Press Enter again to confirm the setting which is then stored in the memory. After that the

display automatically returns to normal mode and shows the current pressure.

Should you change your mind and not wish to update a value, just leave the buttons untouched for 10 seconds and the unit will return to running mode without changing the value.

#### Menues

Measuring range	-01	0..100 / 300 / 500 / 999 Pa
Setpoint	-02	0...999 Pa
Damping	-03	0...20 s
P-band	-04	0...999%
I-time	-05	0...300 s
D-factor	-06	0...999
Zero-point adj.	-08	

Press *Enter* to obtain zero

### Dimensions and wiring

1	24 V AC/DC
2	24 V AC/DC system neutral
3	Signal neutral
4	Output 0...10 V DC (sensor)
5	Output 4...20 mA (sensor)
6	Output 0...10 V (controller)
7	Net A (only TPDA-C-C-LON)
8	Net B (only pā TPDA-C-C-LON)
9	Ground

