

# **DMD**

Differential pressure transmitter 0...100/ 300/ 500/ 1000 Pa



DMD is a differential pressure transmitter with display, for measuring overpressure, underpressure and differential pressure in neutral gases. The main application is for pressure control in air handling systems

- Selectable measuring range 0...100, 0...300, 0...500, 0...1000 Pa
- Output 0...10 V and 4...20 mA
- LED display

- Damping of measuring signal is adjustable
- Zero-point adjustment
- \* LON-version available

# **Function**

The differential pressure transmitter DMD is based on microprocessor technology and it has a logical menu system.

Settings of working range, damping, and zero-point adjustment are made using buttons under the lid.

## Measuring technique

Pressure measurments 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. The thick-film resistor is mounted on the bending area of the measuring beam. When the measuring beam bends the resistance value changes and will then be converted to a proportional output signal via 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 a very good long-time stability.

## Adjustable working range

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

# **Electronical damping**

The pressure transmitters have electronical 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.

DMD is supplied complete with connection set containing two pressure outlets and 2 m hose.

#### Technical data

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
Maximum overload 20 kPa

Accuracy +/- 1 % at 20°C Temperature dependence +/- 0,05% /°C

Protection class IP54

This product conforms with the requirements of European EMC standards

CENELEC EN 50081-1 and EN 50082-1 and carries the CE mark

**Outputs** 

Output 0...10 V and 4...20 mA, corresponding to selected setpoint

Load resistance > 2 Kohm (0...10 V), < 500 ohm (4...20 mA)

Settings

Measuring range 0...100 / 0...300 / 0...500 / 0...999 Pa, selectable

Zero-point adjustment By means of buttons under the lid Electronic damping 0...20 s, adjustable under the lid

Connection

Pressure Hose nippel. For 6 mm hose

Indication

Display LED, three digits

## Settings in the menu system

All settings are made using any of 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 menu automatically returns to the 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 current reading.

The display alternates between the reading and the menu number.

To obtain another reading press the Up or Down buttons until the required reading 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, after all, not wish to change a reading the menu system automatically returns to running mode if the buttons are left unattended for 10 seconds.

#### Menus

Working range -01 0..100 / 300 / 500 / 999 Pa

Damping -03 0...20 s

Zeropoint adj. -08 Press on Enter obtains zero

output

## **Dimensions and wiring**

I	1	24 V AC/DC
	2	24 V AC/DC system neutral
	3	Signal neutral
I	4	Output 010 V DC
I	5	Output 420 mA
[	6	Not in use
I	7	Not in use
	8	Not in use
I	9	Not in use

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