

DTL10/10(-D)

Differential pressure transmitter for air



Transmitter for differential pressure measurement of air and non-corrosive gases in air handling units etc.

- ✓ Output signal 0...10 V (settable to 4...20 mA for models with display)
- ✓ Quick mounting saves time
- ✓ High level of accuracy and stability
- ✓ With or without display

Application

A common application area is pressure control in ventilation systems.

Function

The transmitter consists of a plastic sensor housing and a silicone LSR membrane. The differential pressure affects the membrane which is connected to the sensor element. The sensor element consists of a ceramic beam with thick film resistors. The properties of the ceramic material ensure that the transmitter has excellent long-term stability while simultaneously providing quick response times and good accuracy.

Display

The front of DTL10/10-D has an LCD display, showing the current pressure.

Installation

The transmitter is normally mounted vertically with screws using the mounting holes in the back edge of the unit. There are also two mounting holes in the upper side of the sensor housing.

Connection set

A connection set consisting of tubing and pressure outlets is included as an accessory to the transmitter

DIP-switches

Models without a display have two DIP-switches which can be used for scalable pressure range setting. Models with display have ten DIP-switches which can be used for scalable pressure range setting (proportional adjustment using a potentiometer), pressure units, pressure range characteristics, output signals, response curve (linear/root calculated) and display backlighting (off/5 min/on).

Technical data

| | |
|-------------------------------|---|
| Supply voltage | 21...27 V AC or 18...33 V DC. (4...20 mA only 18...33 V DC) |
| Power consumption | 10 mA (0...10 V), 20 mA (4...20 mA) |
| Measuring ranges | -30...+30 Pa / -50...+50 Pa / -100...+100 Pa, selected via DIP-switches |
| Load impedance | >10 kOhm (0...10 V) |
| Pressure connections | Nipples for 6,2 mm tubing |
| Cable connection | Screw connector. PG11-inlet |
| Cabling | Three-wire. A flexible cable is recommended. |
| Mounting position | The transmitter is mounted vertically on a wall or similar with the pressure connections pointing down. |
| Protection class | IP54 |
| Weight | 0.1 kg |
| Accuracy, linearity | <±1.0 % fs |
| Accuracy, hysteresis | <±1.0 % fs |
| Temperature dependency | <0.04 % fs /°C (fs = fullscale measurement range of transmitter) |
| Ambient temperature | 0...+70°C |
| Storage temperature | -10...+70°C |
| Dynamic response time | <20 ms |



This product carries the CE-mark. More information is available at www.regincontrols.com.

Material

| | |
|-----------------------|--------------------------------------|
| Sensor housing | PVC, fireproof according to UL94 V-0 |
| Membrane | LSR (silicone) |

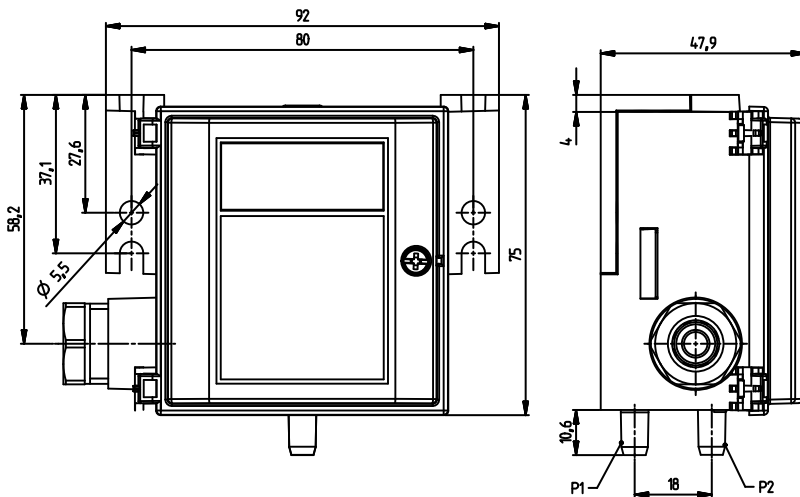
Models

| Article | Display | Output signal |
|------------|---------|--|
| DTL10/10 | - | 0...10 V DC |
| DTL10/10-D | X | 0...10 V DC (settable to 4...20 mA via DIP-switch) |

Accessories

| Article | Description |
|---------|---|
| ANS-20 | Two pressure outlets (straight) and 2 m plastic tube. |
| ANS-3 | Two pressure outlets (metal, 90° angle) and 2 m plastic tube. |

Dimensions

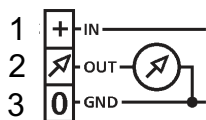


(P1 and P2 = Pressure ports 1 and 2)

[mm]

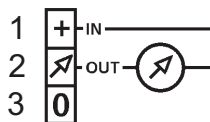
Wiring

0...10 V



1. Supply voltage 24 V AC / 18...33 V DC
2. Output signal 0...10 V DC
3. System neutral

4...20 mA



1. Supply voltage 18...33 V DC
2. Output signal 4...20 mA
3. Not connected

Documentation

All documentation can be downloaded from www.regincontrols.com.