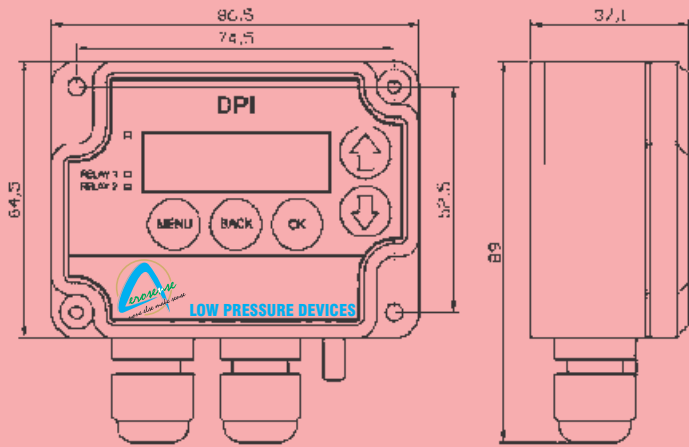




AEROSENSE DIFFERENTIAL PRESSURE CONTROLLER



The **DPI** series electronic pressure measuring devices are engineered for building automation in the HVAC/R industry. The most technologically advanced and versatile electronic differential pressure switches on the market, combining up to two relay outputs and 0–10 V output options.

Application:

Series DPI devices are commonly used in HVAC/R systems for:

- Fan, blower and filter monitoring
- Staircase pressure monitoring and alarm
- Pressure monitoring in clean rooms
- Boiler pressure monitoring and alarm

Auto Zero Feature:

AZ-calibration is a function in the form of an automatic zeroing circuit built into the PCB board. The AZ-calibration electronically adjusts the transmitter zero at predetermined time intervals (every 10 minutes). The AZ-calibration eliminates all output signal drift due to thermal, electronic or mechanical effects, as well as the need for technicians to remove high and low pressure tubes when performing initial or periodic transmitter zero point calibration.

The AZ adjustment takes 4 seconds. To avoid conflict with the BAS system, the output and display values will freeze to the latest measured value, after which the device returns to its normal measuring mode.

Transmitters equipped with the AZ-calibration are virtually maintenance free.

When the AZ-calibration option is not selected, the product is provided with a manual pushbutton autozero. To maintain proper functionality and accuracy of the transmitter, it is recommended that the manual pushbutton autozero point calibration is performed annually, at a minimum.

Model Selection Table:

Model	Field Selectable Measuring Range using menu
DPI2500-2R-D	100 / 250 / 1000 / 2500 PA
DPIC500-2R-D	±100 Pa / ±250 / ±300 / ±500 PA

Add –AZ for models with Auto-Zero Feature.

For E.g.: DPI2500-2R-AZ-D

Technical Specification:

- Service:** Dry air or non-aggressive gases
- Measuring units:** PA, kPA, MM WC, IN. WC, mBar selectable via menu
- Measuring element:** Piezo resistive
- Operating Temperature:**
 - Without autozero:** -10...50 °C
 - With autozero:** -5...50 °C
- Storage temperature:** -20...70 °C
- Humidity:** 0 to 95 % RH, non-condensing
- Accuracy:** ±0.5 % F.S.
- Long term stability:** Typical 1 year
- With autozero:** ±1 Pa
- Without autozero:** ±8 Pa
- Overpressure:**
 - Proof pressure:** 25 kPA
 - Burst pressure:** 30 kPA
- Zero point calibration:** Automatic with autozero (-AZ) circuit or Manual via menu
- Response time:** 0.5/10 s, selectable via menu
- Dimensions:** 89 x 86.5 x 37.1 mm
- Weight:** 150 g
- Materials:** ABS
- Protection standard:** IP54
- Touch sensitive buttons on the lid:** Menu, Back, OK, down arrow, up arrow
- Display:** 3 1/2 digit LCD backlit display
- Size:** 46.0 W x 14.5 H mm
- Electrical connections:**
 - V out:** Terminal block (24 V, GND, 0–10 V)
 - Wire:** 12–24 AWG (0.2–1.5 mm²)
 - Relay 1:** Terminal block (NC, COM, NO)
 - Wire:** 12–24 AWG (0.2–1.5 mm²)
 - Relay 2:** Terminal block (NC, COM, NO)
 - Wire:** 12–24 AWG (0.2–1.5 mm²)
- Cable entries:**
 - Strain relief:** M16 & M20
 - Knockout:** 16 mm
 - Knockout:** 20 mm
- Pressure fittings:** 5.2 mm barbed brass
- Circuit:** 3-wire (24 V, GND, 0–10 V)
- Input:**
 - Without autozero:** 21–35 VDC / 24 VAC, ±10 %
 - With autozero:** 24 VAC or VDC, ±10 %
- Output:**
 - Analog:** 0–10 VDC, Relay 1: 250 VAC / 30 VDC / 6 A
 - Relay 2:** 250 VAC / 30 VDC / 6 A
- Resistance minimum:** 1 kΩ
- Current consumption:** 35 mA + relays (7 mA each) + AZ circuit (20 mA) + 0–10 V output (10 mA)
- Conformance:** Meets requirements for CE marking