

PRESSURE REGULATOR CALAIR-PR

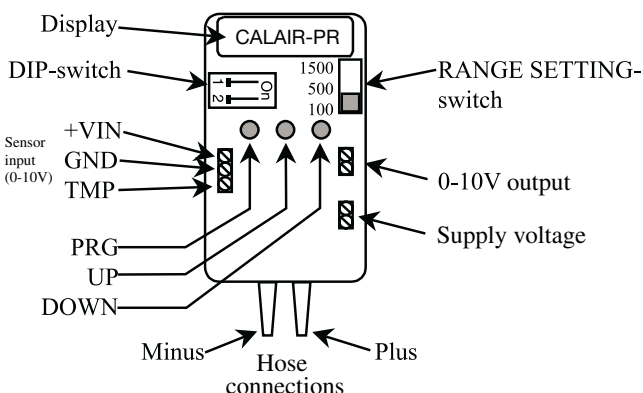
Differential pressure regulator with compensation for outdoor temperature with either a NTC-type temperature sensor or an input of 0-10 V

CE 7.9.3.2.E



TECHNICAL SPECIFICATIONS

Supply voltage:	230 VAC, galvanically separated
Pressure range:	-1999 to +1999Pa
- Adjustable set-point	1-1500Pa
- Resolution	1Pa
Input signal:	NTC-sensor/0-10VDC
- Regulating resolution	0,3°C/50mV
Output signal:	0-10VDC
- Regulating resolution	39mV
- Maximum load:	1,5mA
Temperature compensation range:	-15 to +20°C
Temperature range displayed:	-15 to +41°C
Set point reduction:	0 - 199Pa
Accuracy:	Norm. 0,1% of pressure range 2000Pa (Max 0,4%)
Hysteresis:	0,05%
Repetition accuracy:	0.05%
Approvals:	CE
Hose connections:	
- Left	Minus/suction
- Right	Plus/pressure
LED-signal:	
- Yellow	Supply voltage
- Red	Short circuit/ interruption in temperature sensor
Ambient temperature:	0-50°C
Insulation class:	IP54
Installation:	Wall
Dimensions without connections:	
(H x W x D)	179 x 98 x 53 mm



PROPERTIES

- Large, clear display, 4 digits
- Adjustable outdoor temperature compensation
- Adjustable minimum/maximum output (0-10V)
- Outdoor temperature sensor (NTC)
- Compact installation dimensions
- 230 VAC supply
- Stabilised output (0-10 VDC)

OPERATION

CALAIR-PR is a pressure regulator or a pressure sensor with output 0-10 V. Desired operation mode is selected with a DIP-switch on the PCB.

1. Pressure sensor

0-10 V output corresponding to the pressure in three different pressure ranges: 0-100, 0-500 or 0-1 500 Pa.

Example: At pressure range 0-100 Pa, 0 Pa corresponds to 0 V and 100 Pa to 10 V. Desired pressure range is selected using a three position switch.

2. Pressure regulator

The set pressure is selected with switches on the PCB. Pressure range is 1 to 1500 Pa. CALAIR-PR governs for example an RPM-regulator or a VAV-unit to the set point.

3. Pressure regulator with compensation for the set point.

With an input of 0 to 10 V the set point can be reduced with 0 to 199 Pa (adjusted with programming buttons on the PCB).

4. Pressure regulator with outdoor temperature compensation

With CALAIR-PR the set point value can be reduced with a certain number of Pascals within an adjustable temperature range.

Example: 25 Pa between +15 and -15°C.

PROGRAMMING

See instructions supplied with the product.

INSTALLATION

CALAIR-PR is designed for wall installation.

APPLICATION

CALAIR-PR is used to maintain the set pressure in, for example, exhaust ventilation for cooker hoods. CALAIR-PR can also be used as a differential pressure transducer.

MAINTENANCE

Zero calibration of CALAIR-PR. Press the DOWN-button then the PRG-button and keep both buttons pressed until display shows "0".

ORDERING EXAMPLE

Product	Ordering code
Pressure regulator	CALAIR-PR
Accessories	
Outdoor temperature sensor	ETF-1755

CALECTRO®

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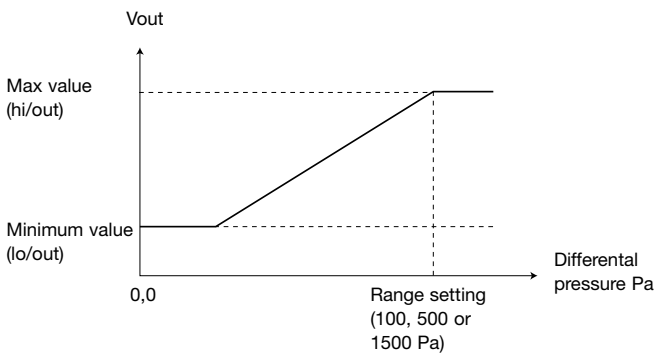
ADJUSTING THE DIFFERENTIAL PRESSURE SENSOR/REGULATOR

1. Switch DIP switches 1 and 2 to desired positions.

DIP 2 DIP 1
0 0 Transducer (pressure sensor)

The output voltage is linear to measured differential pressure within the selected pressure range. Selected minimum/maximum output voltage will not be exceeded.

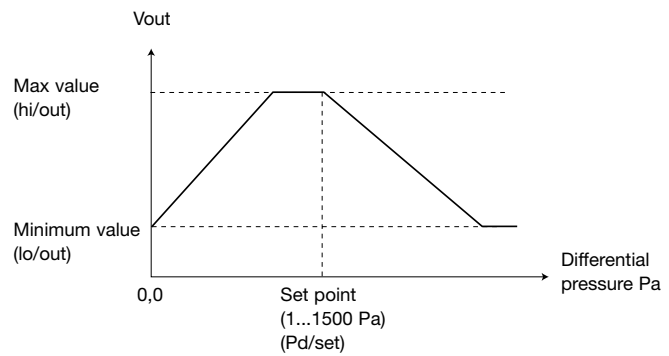
FIG-01



DIP 2 DIP 1
0 1 Regulator (without winter compensation)

The output voltage is governed until the set value is achieved. The selected minimum/maximum output voltage will not be exceeded.

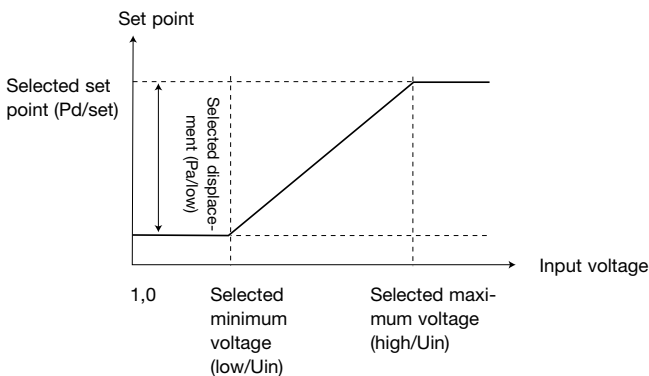
FIG-02



DIP 2 DIP 1
1 0 Regulator with input 0-10 for adjustment of the set point

The output voltage is regulated in the same way as in figure 02. The set point is displaced as a function of the input voltage of 0-10 V.

FIG-03



DIP 2 DIP 1
1 1 Regulator with winter compensation (out door temperature compensation)

The output voltage is regulated in the same way as in figure 02. The set point is displaced as a function of measured temperature at sensor input.

FIG-04

