

# ES 429V

## Pressure transducer

**0-300, 600, 800 or 1000Pa**  
**0-10V DC signal out**



**Description:**

Pressure transducer for an extended temperature range, and where exactness is needed.

The transducer can measure the pressure in four different ranges: 0-300, 0-600, 0-800 and 0-1000 Pa. The range is chosen with the position of a jumper on the printed circuit. It is possible to measure either over-, under- or differential pressure.

The transducer is supplied from 24V DC voltage, and will generate an outgoing signal of 0-10V DC, analogue with the chosen pressure range.

**Important:**

When mounted, the transducer should be protected from wind, as the unit may otherwise be undercooled.

The point of measurement in ventilating ducts should always be taken in a neutral position, not too close to bends, valves and fans, to avoid influence from turbulence in the air stream.

**Mounting:**

The transducer is designed for mounting in horizontal position. If mounted in vertical position, with the studs pointing down, the offset point will move approx. 4 Pa.

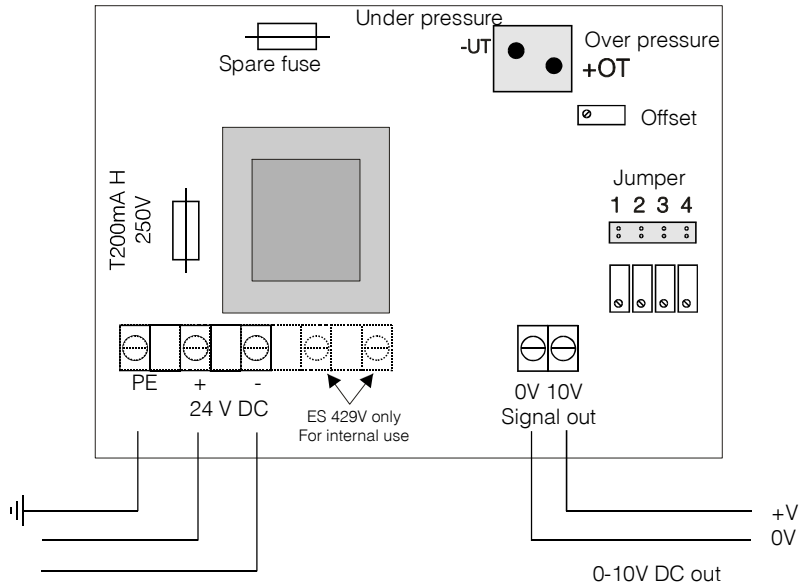
The wires are to be mounted as the connections diagram page 3.

The unit is supplied with PG 13.5 and PG 9 cable glands for line and signal cables respectively.

At mounting, care should be taken to provide the cable glands with a tight fit around the cables to ensure correct encapsulation.

Make certain that wires inside the mounting box, and the tubes for the pressure sensor are not squeezed. The tube studs are intended for ¼" tubes.

## Connection diagram



### Adjustment:

Normally, no adjustment is needed, and the trimming potentiometers should not be touched. In case of a need for a change of range, the jumper is moved to the required range. Jumper 1 : 0-300, 2 : 0-600, 3 : 0-800 and 4 : 0-1000 Pa

If adjustments must be made, the pressure tubes are removed, and the trimmer for "offset" is adjusted to approx. 50 mV signal out.

Then a pressure is applied equal to the max. pressure in the required range. Normally 300, 600, 800, 1000 Pa or, if needed, a specific max. pressure on either the over- or under pressure stud, as required.

Adjust the trimmer to the range chosen, until the outgoing signal is 10.0V DC, without any load on the terminals.

**Technical data:**

Operating voltage	24V DC
Power consumption:	25W
Enclosure	IP54 with both pressure tube glands in use
Size (h*w*d)	150 x 122 x 96 mm
Weight	1 kg
Output signal	0-10V, max 12V DC, max. 20 mA $R_{out} = 33$ ohms
Temperature range	-40 - 75°C
Air types	Neutral atmospheric air
Pressure range	0-300, 0-600, 0-800 or 0-1000Pa
Linearity	$\pm 10$ Pa
Hysteresis	$\pm 6$ Pa
Offset drift	$\pm 55$ Pa at -40 - 60°C
Timelag	$T_{90-10}$ approx. 150 mSec.

**Product types:**

Order code	Type	Description
	ES429V	Pressure transducer for extended temp. range

**The product is in accordance with the following CE directives:**

LVD 73 / 23 / EØF  
EMC 89 / 336 EØF

**Distributor:**