

HESCH

AUTOMATION PARTNER

Operating Manual

HE 5410

Differential Pressure Measurement Transformer

(Original in German)



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1 Set-up

The HE 5410 Measurement Transformer should not, if possible, be set up near heat sources (environmental temperature: -10°C to 50°C , 15°F to 120°F).

Installation should be upright (vertical), with the pressure intakes pointed down. The pressure intakes should be connected, if possible, to short hoses. In doing that, the following applies: P+ larger than P-.

Check the electrical connections before use.

The device is appropriate for a connection of 10 to 36 V DC.

Make sure that you use the right value for the connection voltage. Otherwise, the device will be destroyed. No additional (electrical) consumers may be connected to the clamps. That prevents the measurement current from being falsified.

The power intake for the device is the measurement value of the differential pressure. A sliding switch can be used to set the test operation, at 10mA.

Sliding switch

A sliding switch can be used to switch the device into "test" mode. A signal is thus created, of 10mA, on the supply lines, in order to be able to check the signal processing. In this operational type, the light diode will light up 'red'. 'NORM' is normal operation.

Light diode

The light diode shows the mode that the device is currently in, which was set with the sliding switch:

'green' N	Normal operation	Power intake corresponds to the differential pressure
'red' T	Test operation	Power intake fixed, with 10mA, for making operational

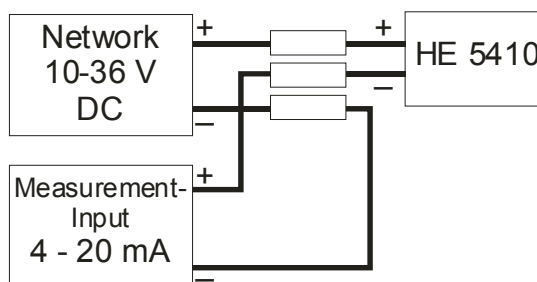
Potentiometer

The potentiometer is used to set the zero point of the transformer to 4 mA.

The device is set at the factory to the correct value, and does not need to be changed.

If the zero point does need to be set, a warm-up runtime of 30 min must be maintained before doing so.

Connection scheme



2 Connections

Screw connections

Electrical connections



Put the higher pressure(+) on the front connection.



No additional consumers may be connected to the clamps; that prevents the measurement flow from being falsified.

Device identification



3 HE 5410 Technical Data

Measurement area [mbar]: 0 ...	2,5	5	10	25	50	100	250	500	1000
Max. differential pressure [mbar]:	200		750			2000		2000	
Max. env. pressure. [mbar]:	350		1000			2000		2000	
Measuring accuracy:	± 1% of the end value								
Temperature drift	± 0.05 % / K of the end value								
Hysteresis	± 0.5 % of the end value								

Measurement system:	Semi-conductor sensor
Medium:	Air, as well as dry, non-aggressive gases
Auxiliary power:	U _b = 10 ... 36 V DC
Analog output:	4 ... 20 mA, 2- wire technology
Max. allowed load:	RA ≤ (U _b - 9V) / 0.02 A
Pressure connection:	Hose nipple for hose with 6mm inner diameter
Environment temperature:	Operation: -20 ... +55 °C (-5°F to 130°F)
Climatic application class:	KWF based on DIN 40040 (≤ 75% rel. humidity, no dewing)
Connection technology:	Hose/screw connections for 0.2 ... 1.5 mm ²
Dimensions:	22.5 x 113 x 115 mm (W x H x D)
Weight:	125 g