

**HE 5413**

 **ENGINEERING**  
made in Germany

# Multiple transmitter

Delta-p transmitter with up to 3 measuring channels in one housing



**HESCH**  
AUTOMATION

 **AXXERON**  
TECHNOLOGIES MEMBER

Many measuring ranges and combination options

# All in one housing

The monitoring of several differential pressures at one location and the different measuring ranges in the applications require the use of individual transmitters. This is associated with the necessary space requirement on site, the mechanical and electrical installation effort and ultimately costs.

The HE 5413 multiple differential pressure transmitter offers up to three measuring channels, each with freely selectable measuring ranges, in a single housing. This means that only one compact device is required instead of three.

## Connection without tools

Devices with 24 V DC can be put into operation quickly and completely without tools thanks to the M12 connector, as the device does not need to be opened. The measuring hoses are connected via a plug-in hose connection.

The HE 5413 is approved for ATEX Zone 22 and can also be used safely in potentially explosive atmospheres.

✓ Ideal for  
**multi-stage**  
filter systems



Can be used in  
**ATEX Zone 22**



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## Applications

- Independent filter monitoring
- Pressure/suction control
- Overpressure and negative pressure measurement
- Volume flow measurement/control
- Level measurement (bubble method)
- Precision air duct measurement
- Clean room overpressure monitoring
- Burner vacuum measurement
- Process furnace supply air monitoring

## Fields of application

- Filter and dedusting technology
- Ventilation and building technology
- valve and damper controllers
- Clean room and laboratory technology
- Firing technology
- Extraction systems
- Building automation / technology
- Supply air monitoring of any kind



## Individually adjustable – via PC Software


The individual measuring range is set/scaled using the **EasyTool Controls 4.0** software.

This can also be used to save default parameters so that they can be conveniently loaded onto any number of devices.

## Functions:

- Automatic detection of the connected device (manual device selection possible)
- Update of the device software and display of the device information
- Process data recording in CSV files
- Save device parameters to PC and load from PC (e.g. as default parameter set)
- Export or print device parameters in PDF

## Technical data HE 5413

<b>Supply voltage</b>	24 V DC $\pm$ 10 %	100 ... 240 V AC / 50 Hz
<b>Power input</b>	max. 5 W	
<b>dp measurement inputs</b>	2 ... 3	
<b>Current output</b>	4 ... 20 mA; Analogue signal of the measured differential pressure Initial load: Load $\leq$ 600 $\Omega$	
<b>Voltage supply</b>	0 ... 10 V Initial load: Load $\geq$ 1 k $\Omega$	
<b>Service interface</b>	RJ-10 socket (TTL adapter required)	
<b>Housing material</b>	Polycarbonate Parts in contact with gas: Polyurethane	
<b>Mounting position</b>	Wall mounting, as required; preferably horizontal with connections at the bottom	
<b>Dimension</b>	191 $\times$ 80 $\times$ 60 mm (W $\times$ H $\times$ D)	
<b>Weight</b>	approx. 450 g	
<b>Degree of protection</b>	IP65	
<b>Explosion protection</b>	 II 3D Ex tc IIC T135° Dc	
<b>Storage and transport temperature</b>	-40 ... +70 °C	
<b>Ambient temperature operation</b>	-20 ... +50 °C	
<b>Connection pressure per measuring input</b>	2 $\times$ push-in connection for hose $\varnothing$ 6 mm (external)	
<b>Electrical connection</b>	<ul style="list-style-type: none"> <li>• Push-in spring-loaded terminals for rigid and flexible conductors</li> <li>• or optional M12 connector plug, 5-pin (only for 24 V DC devices)</li> </ul>	
<b>Cable gland</b>	M20 for standard signals; M12 for supply	
<b>EMC</b>	DIN-EN 61000-6-2; DIN-EN 61000-6-3	

## Sensor system

Measuring range (mbar)	± 2.5, ± 5, ± 10, ± 25, ± 50, ± 100, ± 350, ± 1000 Default setting unidirectional (available pre-parameterised for an extra charge)			
Medium	Air and dry, non-aggressive mediums			
Measurement system	Piezoresistive			
Max. Overload pressure *				
Measuring range	± 2.5 ... ± 10 mbar	± 25 mbar	± 50 ... ± 100 mbar	± 350 ... ± 1000 mbar
	0.35 bar	0.5 bar	1 bar	5 bar
SYSTEM ACCURACY				
Measuring range	± 2.5 ... ± 10	± 25 ... ± 100	± 350 ... ± 1000	
Total accuracy	± 2 % FSO <sup>1</sup>	± 1.5 % FSO <sup>1</sup>	± 1.0 % FSO <sup>1</sup>	

\* The maximum pressure that can be exerted on one pressure port relative to the other port or while only one pressure port is connected without causing leaks/damage to the sensor.

<sup>1</sup>FSO = full-scale output

Version 12 | 6/2024 Errors and changes excepted



# Accessories

## Delta-p connection adapter

For the secure coupling of filter housing and measuring system  
Order no. # 54990001



- Simplifies the installation of the measured value recording
- Pre-filter prevents contamination in the measuring channel
- Quick and easy 1-side installation (incl. drilling template)

## EasyTool Controls 4.0

USB stick with software incl.  
USB-TTL adapter and connection cable  
Order no. # 61000011



PC software for parameterising HESCH valve and filter controllers as well as new generation of differential pressure regulators and transmitters.

## Ordering matrix

	5413	0	0	1			
Type						Sensor 1	Sensor 2
Standard / cable gland	0						
M12 connector plug (only for 24 V DC)	1						
Supply voltage							
24 V DC	1						
100-240 V AC (not with M12 connector plug)	2						
Sensor (sensor 1 and 2 must always be fitted)							
without	0						
±2.5 mbar; 0(4)-20 mA & 0-10 V Out	1						
±5 mbar; 0(4)-20 mA & 0-10 V Out	2						
±10 mbar; 0(4)-20 mA & 0-10 V Out	3						
±25 mbar; 0(4)-20 mA & 0-10 V Out	4						
±50 mbar; 0(4)-20 mA & 0-10 V Out	5						
±100 mbar; 0(4)-20 mA & 0-10 V Out	6						
±200 mbar; 0(4)-20 mA & 0-10 V Out	7						
±350 mbar; 0(4)-20 mA & 0-10 V Out	8						
±1000 mbar; 0(4)-20 mA & 0-10 V Out	9						

The following sensors are only available with cable gland

±2.5 mbar; 0(4)-20 mA Out galvanically isolated	G
±5 mbar; 0(4)-20 mA Out galvanically isolated	H
±10 mbar; 0(4)-20 mA Out galvanically isolated	I
±25 mbar; 0(4)-20 mA Out galvanically isolated	J
±50 mbar; 0(4)-20 mA Out galvanically isolated	K
±100 mbar; 0(4)-20 mA Out galvanically isolated	L
±200 mbar; 0(4)-20 mA Out galvanically isolated	M
±350 mbar; 0(4)-20 mA Out galvanically isolated	N
±1000 mbar; 0(4)-20 mA Out galvanically isolated	O
±2.5 mbar; 0-10 V Out galvanically isolated	P
±5 mbar; 0-10 V Out galvanically isolated	Q
±10 mbar; 0-10 V Out galvanically isolated	R
±25 mbar; 0-10 V Out galvanically isolated	S
±50 mbar; 0-10 V Out galvanically isolated	T
±100 mbar; 0-10 V Out galvanically isolated	U
±200 mbar; 0-10 V Out galvanically isolated	V
±350 mbar; 0-10 V Out galvanically isolated	W
±1000 mbar; 0-10 V Out galvanically isolated	X

Questions about the product?

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