

Product overview

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Differential pressure measurement

for precise detection and control of differential pressures



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Product overview differential pressure measurement

Designation Function	HE 5409 dp-measuring transducer	HE 5410 dp-measuring transducer	HE 5411 Lite + Basic dp-measuring transducer	HE 5411 Premium dp-measuring transducer
Measuring ranges	0 ... 25 / 0 ... 50 / 0 ... 100 / 0 ... 1000	9 measuring ranges from 2.5 ... 1000 mbar	8 measuring ranges from ± 1.25 mbar ... 1000 mbar/max.	8 measuring ranges from ± 1.25 mbar ... 1000 mbar/max.
Auxiliary energy	10 ... 36 V DC	10 ... 36 V DC	19 ... 36 V DC / 100 ... 240 V AC	19 ... 36 V DC / 100 ... 240 V AC
Pressure connection	Plug-in connector Ø 6 mm external	Hose nipple Ø 6 mm inside	Plug-in connector Ø 6 mm external	Plug-in connector Ø 6 mm external
Output signals	4 ... 20 mA, 2-wire system	4 ... 20 mA, 2-wire system	0 ... 10 V, 4 ... 20 mA	0 ... 10 V, 4 ... 20 mA
Switching outputs	-	-	-	1 × changeover contact 250 V AC, 5 A (limit value)
Inputs	-	-	-	-
Displays	-	-	4-digit 7-segment	4-digit 7-segment LED limit value display
Key operation	-	-	-	yes
PC parametrisation	-	-	yes	yes
Housing	Dustproof plastic housing	Plastic housing	Dustproof plastic housing	Dustproof plastic housing
ATEX approval	Zone 2 + 22	-	Zone 2 + 22 *	Zone 22 *
Mounting	Wall mounting	Top hat rail mounting	Wall mounting	Wall mounting
Dimensions (W × H × D)	113 × 80 × 60 mm	22,5 × 113 × 115 mm	113 × 80 × 60 mm	113 × 80 × 60 mm
Advantages and special features	Zero point adjustment (button)	Zero point adjustment (pot)	<ul style="list-style-type: none"> Zero point adjustment (button) Test output signal (50%) Measuring range linear/square root 	<ul style="list-style-type: none"> Zero point adjustment (button) Test output signal (50%) Measuring range linear/square root

Ranges of application

✓ Ventilation/air conditioning technology ✓ Firing/heating technology ✓ Filter monitoring

Errors and changes excepted

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Delta-p measurement

Small difference – big effect



HE 5413 dp-measuring transducer	HE 5422 / HE 5422 HD dp-Regulator	HE 5422 MR dp-Controller with measuring hose cleaning	HE 5425 dp-measuring transducer
8 measuring ranges from ± 2.5 mbar ... 1000 mbar/max.	7 measuring ranges from ± 2.5 ... 1000 mbar/max.	0 ... 35 / 0 ... 90 / 0 ... 450	6 measuring ranges from ± 10 mbar ... ± 100 bar
19 ... 36 V DC / 100 ... 240 V AC	24 V DC and 100 ... 240 V AC in one	24 V DC and 100 ... 240 V AC in one	15 ... 45 V DC (Power loop)
2 × Plug-in connector $\varnothing 6$ mm external	Plug-in connector $\varnothing 6$ mm external	Plug-in connector $\varnothing 6$ mm external 1 × 8 mm for air blast (8 bar)	1/4-18 NPT
0 ... 10 V, 4 ... 20 mA	0 ... 10 V, 4 ... 20 mA	4 ... 20 mA	4 ... 20 mA, 2-wire, HART **
-	1 × changeover contact (operation/fault) 1 × changeover contact (cleaning) 2 × changeover contacts (alarms)	1 × changeover contact (operation/fault) 1 × changeover contact (cleaning) 2 × changeover contacts (alarms)	dp; derived from: Flow rate (volume and measured flow), fill level (level, volume, mass)
-	3 × digital inputs 24 V DC: start, post-cleaning, hold measured value	2 × digital inputs 24 V DC: start, post-cleaning,	-
-	4-digit 7-segment 8 × LED status displays 16 × LED differential pressure column	3-digit 7-segment 11 × LED status displays 16 × LED differential pressure column	5-digit, 7-segment, 8 mm 8-digit, 14-segment, 5 mm bargraph 2 % resolution
-	yes	yes	yes
yes	yes	yes	yes
Dustproof plastic housing	Dustproof plastic housing/ Die-cast aluminum housing	Dustproof plastic housing	Diecast aluminum housing, stainless steel, laminated safety glass
Zone 22	Zone 22	Zone 22	-
Wall mounting	Wall mounting	Wall mounting	Wall and pipe mounting
191 × 80 × 60 mm	113 × 80 × 60 / 159 × 128 × 60 mm	200 × 150 × 100 mm	130 × 205 × 128 mm
<ul style="list-style-type: none"> Up to 3 measuring channels per device M12 connector plug w/o cable gland Galvanically separated outputs selectable 	<ul style="list-style-type: none"> LED differential pressure column Intuitive, simple operation HD version in robust die-cast aluminum housing 	<ul style="list-style-type: none"> LED differential pressure column Intuitive, simple operation Automatic cleaning of the sample gas line 	<ul style="list-style-type: none"> HD version in robust die-cast aluminum housing Housing can be rotated 360 ° Display can be rotated 360 °
	✓ Control ✓ Monitoring of industrial filter systems		✓ Power plant technology ✓ Chemical & heavy industry

* Labelling for devices with:

19...36 V DC (Lite, Basic, Premium) except for measuring range $\pm 1,25$ mbar: II 3D Ex tc IIIC T135° Dc IP65

19...36 V DC (Lite, Basic) except for measuring range $\pm 1,25$ mbar: II 3G Ex nR IIC T4 Gc

100...240 V AC: II 3D Ex tc IIIC T135° Dc IP65

Measuring range $\pm 1,25$ mbar: **UKCA CE**

** Highway Addressable Remote Transducer





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departments, the contact persons
and the good quality of the products“*

Renate Thörner, Product Manager
at Bio-Circle Surface Technology GmbH



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