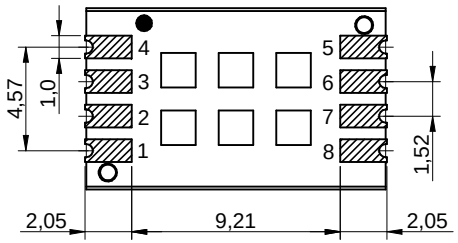
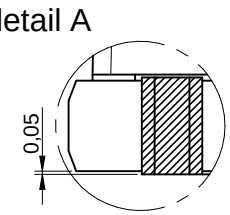
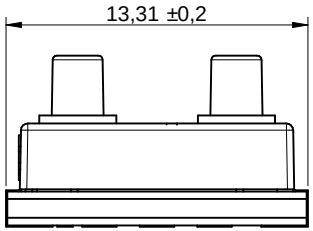
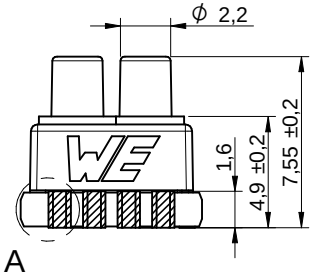
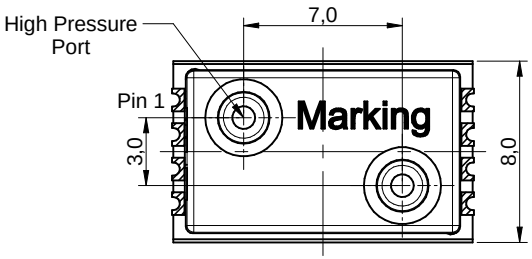
Dimensions: [mm]

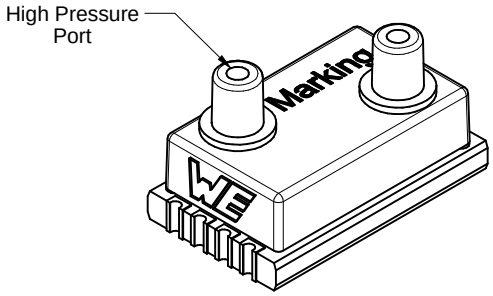






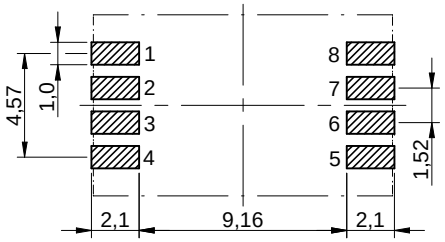






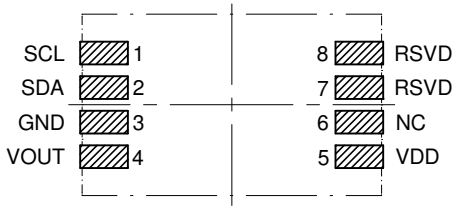
Scale - 3:1

Recommended Land Pattern: [mm] (Top View)



Scale - 3:1

Product Specific Pinning: (Top View)



RoHS COMPLIANT
REACh COMPLIANT

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CHECKED	REVISION	DATE (YYYY-MM-DD)	GENERAL TOLERANCE	PROJECTION METHOD
NiM	001.000	2019-08-13	DIN ISO 2768-1m	

DESCRIPTION
WSEN-PDUS Differential Pressure Sensor

ORDER CODE
2513130810301

BUSINESS UNIT	STATUS	PAGE
eiSos	Valid	1/6

Pressure Sensor Specification:

Properties		Test conditions	Value			Unit
			min.	typ.	max.	
Measurement range	P_{RANGE}		0		100	kPa
Absolute accuracy	ACC_{P_ABS}	T = 25 °C	-0.3 %FSS	±0.1 %FSS	0.3 %FSS	
Total accuracy	ACC_{P_TOT}	T = 0 to 70 °C	-0.5 %FSS	±0.25 %FSS	0.5 %FSS	
Sensitivity (digital)	SEN_P			$3.815*10^{-3}$ kPa/digit		
Sensitivity (analog)	SEN_{P_AN}			25 kPa/V		
Repeatability	ACC_{P_REP}			±0.01 %FSS		
Nonlinearity	ACC_{P_NL}		-0.3 %FSS	±0.1 %FSS	0.3 %FSS	
Resolution (ADC)	RES_P			15		bits
Resolution (DAC)	RES_{P_DAC}			11		bits
Response time	t_{RESP}			2.2		ms
Long term drift	ACC_{P_DRIFT}	per year		±0.05 %FSS		

Temperature Sensor Specification:

Properties		Value			Unit
		min.	typ.	max.	
Measurement range	T_{RANGE}	0		70	°C
Sensitivity	SEN_T		$4.272*10^{-3}$ °C/digit		
Resolution (ADC)	RES_T		15		bits

Electrical Properties:

Properties		Value			Unit
		min.	typ.	max.	
Operating supply voltage	V_{DD}	4.75	5	5.25	V
Current consumption	I_{DD}		4	6.5	mA
Output current analog pin	I_{OUT_A}			1	mA
Digital input voltage - high-level	V_{IH}	0.7 * V_{DD}			
Digital input voltage - low-level	V_{IL}			0.3 * V_{DD}	
Digital output voltage - high-level	V_{OH}	0.9 * V_{DD}			
Digital output voltage - low-level	V_{OL}			0.1 * V_{DD}	

Absolute Maximum Ratings:

Properties		Value		Unit
		min.	max.	
Input voltage VDD pin	V_{DD}	-0.3	6.5	V
Input voltage control pins [1]	V_{IN_MAX}	-0.3	5.5	V
Differential over pressure	P_{OVER}		300	kPa
Differential burst pressure	P_{BURST}		500	kPa
Common mode pressure	P_{CM}		2500	kPa

[1] Control pins are SDA and SCL

General Information:

Operating Temperature	-25 up to +85 °C
Storage Conditions (in original packaging)	< 40 °C ; < 75 % RH
Compensated temperature range	0 to 70 °C
Communication interface	I^2C, Analog
Moisture Sensitivity Level (MSL)	1
Electrostatic discharge protection (HBM)	2 kV

Product Specific Pinning:

Pin	Pad	Description	I/O
SCL	1	I^2C serial clock	Input
SDA	2	I^2C serial data	Input/Output
GND	3	Negative supply volage	Supply
VOUT	4	Analog output	Output

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