

1 Limits for Coefficients and for the Calculated Results of MS5541-C

Assumed pressure and temperature range: 0...14 bar, -40...85°C.
For definitions, see data sheet of MS5541-C.

Maximum Values for C1-C6

For the type of sensor used in MS5541-C, the following limits of coefficients can be expected:

	min	typ	max
C1 (13 bit)	0	2391	8191
C2 (13 bit)	0	4888	8191
C3 (10 bit)	0	385	1023
C4 (9 bit)	0	221	511
C5 (12 bit)	0	1689	4095
C6 (7bit)	0	58	127

Maximum Values for D1, D2

	min	typ	max
D1	0	17000	40000
D2	0	27000	45000

Maximum Values for Calculation Results

Pmin = 0 bar Pmax = 14 bar,
Tmin = -40°C Tmax = +85°C Tref = +20°C

	min	typ	Max
UT1=8*C5+10000	10000	28016	42760
dUT=D2-UT1	-11400	0	12350

dUTmin = (Tmin-Tref)*190TLNB/°C
dUTmax = (Tmax-Tref)*190TLNB/°C

OFF=C2+10000+(C4-250)*dUT/2 ¹²	9246	14888	18887
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OFFmin=C2min+10000+(C4min-250)*dUTmax/2¹²
OFFmax=C2max+10000+(C4max-250)*dUTmin/2¹²

SENS=C1/2+(C3+200)*dUT/2 ¹³ +3000	1298	4196	8939
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Sensmin=C1min/2+(C3max+200)*dUTmin/2¹³+3000
Sensmax=C1max/2+(C3max+200)*dUTmax/2¹³+3000

P (0...14 bar with 1 mbar resolution)	0		14000
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TEMP=200+dUT*(C6+100)/2 ¹¹	-400		850
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REVISION HISTORY

Date	Revision	Type of changes
April 23, 2008	V1.0	Initial release

FACTORY CONTACTS

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