

Temp (°C)	Digital Values (TSic x06)	Analog 0 V to 1 V (TSic x01)	Analog Ratiometric 10 % to 90 % (V ⁺ = 5.0 V) (TSic x03)
-50 ¹⁾	0x000	0.000	10 % V ⁺ (0.5 V)
-10	0x199	0.200	26 % V ⁺ (1.3 V)
0	0x200	0.250	30 % V ⁺ (1.5 V)
25	0x2FF	0.375	40 % V ⁺ (2.0 V)
60	0x465	0.550	54 % V ⁺ (2.7 V)
125	0x6FE	0.875	80 % V ⁺ (4.0 V)
150 ²⁾	0x7FF	1.000	90 % V ⁺ (4.5 V)

1) LT = -50 2) HT = 150 as standard value for the temperature calculation

Formulas for the output signal [°C]:

Analog output (0 V to 1 V):

$$T = \text{Sig [V]} \times (\text{HT} - \text{LT}) + \text{LT [°C]}$$

Ratiometric output (10 % to 90 %):

$$T = \frac{\frac{\text{Sig [V]} - 0.1}{\text{V}^+ \text{ [V]}}}{0.8} \times (\text{HT} - \text{LT}) + \text{LT [°C]}$$

Digital output - 11 bit:

$$T = \frac{\text{Digital signal}}{2047} \times (\text{HT} - \text{LT}) + \text{LT [°C]}$$

Digital output - 14 bit (TSic 316):

$$T = \frac{\text{Digital signal}}{16383} \times (\text{HT} - \text{LT}) + \text{LT [°C]}$$

LT: Lower temperature limit [= -50 °C]

HT: Higher temperature limit [= +150 °C]

V⁺: Supply voltage [V]

Sig[V]: Analog/ratiometric output signal [V]