

Steinhart-Hart Example Coefficients by Curve

North Star Sensors

0 °C to 70 °C

Curve 44 if (10,000 Ω at 25 °C)		Curve 35 if (100 Ω at 25 °C)		Curve 38 if (1,000 Ω at 25 °C)		Curve 40 if (10,000 Ω at 25 °C)		Curve 43 if (30,000 Ω at 25 °C)		Curve 47 if (100,000 Ω at 25 °C)	
A=	1.18090254918130E-03	A=	1.95525276683993E-03	A=	1.43291542079688E-03	A=	1.02192985237609E-03	A=	9.42164711576043E-04	A=	8.24227928718280E-04
B=	2.16884014794388E-04	B=	2.90075997498480E-04	B=	2.72319937659526E-04	B=	2.41453242427025E-04	B=	2.18768747818204E-04	B=	2.09591365025075E-04
C=	1.90058756197216E-06	C=	2.17525522506513E-06	C=	-4.58846025754717E-07	C=	-2.47620754758454E-07	C=	2.55333661814544E-07	C=	-7.13450294918816E-08
D=	1.83161892641824E-08	D=	1.71837195435572E-07	D=	1.87721342921284E-07	D=	1.65394923419592E-07	D=	1.18147224923565E-07	D=	8.27225454547728E-08

$$\frac{1}{T} = A + B[\ln(R)] + C[(\ln(R))^2] + D[(\ln(R))^3]$$

T is temperature in units of Kelvin (273.15 + °C)

R is resistance in units of Ohms (Ω)

A, B, C, and D are coefficients that depend on curve, temperature range, and resistance at 25 °C