	Función de la Medición		Ref.	T_1 [ºC]	T_0 [ºC]		Especificaciones	
4)	$R(T) = R(T_0)\alpha \cdot (T - T_0)$		X	42,5	20,034		T	0,5%+0,5°C
			σ	1,85	0,01817		PTC	$R(T_0) = 100\Omega$ $\alpha = 0,385\Omega/°C$
			N	5	5			

$$R(T) = R(T_0)\,\alpha\,(T_1 - T_0)$$

TIPO A

$$u_A(T_0) = \frac{0{,}01817}{\sqrt{5}} = 8{,}125\,m°C \quad (A)$$

$$\overline{R(T)} = 100\,\Omega \cdot 0{,}385\,\frac{\Omega}{°C}\,(42{,}5°C - 20{,}034°C) = 864{,}941\,\Omega$$

$$u_A(T_1) = \frac{1{,}85}{\sqrt{5}} = 0{,}8273\,°C \quad (B)$$

(Pareciera que alguna unidad no está del todo bien..)

$$\bar{X}(T_1) = 42{,}5°$$

$$\bar{X}(T_0) = 20{,}034°$$

TIPO B

$$u_B(T_0) = 0{,}5\% + 0{,}5°C = 0{,}10017\,°C + 0{,}5°C = \frac{0{,}60017°C}{\sqrt{3}} \Rightarrow 0{,}34650\ (68\%)\ (C)$$

$$u_B(T_1) = 0{,}5\% + 0{,}5°C = 0{,}2125\,°C + 0{,}5°C = \frac{0{,}7125°C}{\sqrt{3}} \Rightarrow 0{,}411362°C\ (68\%)\ (D)$$

$u_A(T_0) = 8{,}125\,m^\circ C \quad (A)$

$u_B(T_0) = 0{,}34650 \quad (68\%) \quad (C)$

$u_A(T_1) = 0{,}0273\,^\circ C \quad (B)$

$u_B(T_1) = 0{,}411362\,^\circ C \quad (68\%) \quad (D)$

- Combino tipo A & tipo B

$$u(T_0) = \sqrt{u_A^2 + u_B^2} = 0{,}3466\,^\circ C \quad (E)$$

$$u(T_1) = \sqrt{u_A^2 + u_B^2} = 0{,}92396\,^\circ C \quad (F)$$

$\Rightarrow$ - Combino ambas

$$u(R_T) = \sqrt{(C_1 \cdot u(T_1))^2 + (C_2\, u(T_0))^2}$$

$$R(T) = R(T_0)\,\alpha\,(T_1 - T_0)$$

$$\overline{R(T)} = 864{,}941\,\Omega$$

$$C_1 = \frac{dR(T)}{dT_1} = R(T_0)\alpha$$

$$C_2 = \frac{dR(T)}{dT_0} = -R(T_0)\alpha$$

$$\Rightarrow u(R_T) = R(T_0)\alpha\sqrt{u(T_1)^2 + u(T_0)^2}$$

$$u(R_T) = R(T_0)\alpha\sqrt{u(T_1)^2 + u(T_0)^2} = 38{,}5\,\Omega\ ($$

$u_A(T0) = 8{,}125\,m^\circ C \quad (A)$ $\qquad u_B(T0) = 0{,}34650 \quad (68\%)\ (C)$

$u_A(T1) = 0{,}0273\,^\circ C \quad (B)$ $\qquad u_B(T1) = 0{,}411362\,^\circ C \ (68\%) \quad (D)$

- Combino tipo A & tipo B

$$u(T0) = \sqrt{u_A^2 + u_B^2} = 0{,}3466\,^\circ C \ (E)$$
$$u(T1) = \sqrt{u_A^2 + u_B^2} = 0{,}92396\,^\circ C \ (F)$$

$\Rightarrow$ • Combino ambas

$$u(R_T) = \sqrt{(C_1 \cdot u(T1))^2 + (C_2\, u(T_0))^2}$$

$$R(T) = R(T0)\,\alpha\,(T_1 - T0)$$

$$\overline{R(T)} = 864{,}941\,\Omega$$

$$C_1 = \frac{dR(T)}{dT_1} = R(T0)\alpha$$
$$C_2 = \frac{dR(T)}{dT0} = -R(T0)\alpha$$

$\Rightarrow u(R_T) = R(T0)\alpha\sqrt{u(T_1)^2 + u(T0)^2}$

$$u(R_T) = R(T0)\alpha\sqrt{u(T_1)^2 + u(T0)^2} = 38{,}5\,\Omega\,(0{,}9868) = 37{,}99\,\Omega \Rightarrow \text{Aplico factor } K=2$$

$$R(T0) = (864{,}941 \pm 75{,}98)\,\Omega \text{ al } 98\%$$