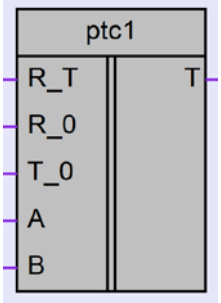
PTC



Input	Data type	Description	Range
R_T	REAL	Resistance at current temperature	
R_0	REAL	Resistance at temperature T_0	
T_0	REAL	Reference temperature	
A	REAL	Coefficient	
B	REAL	Coefficient	
Output	**Data type**	**Description**	**Range**
T	REAL	Temperature	

Function

This macro is intended convert a measured resistance of a PTC sensor to the temperature that the sensor is at. The following approximation is used

$$R(T) = R_0 \cdot (1 + A \cdot (T - T_0) + B \cdot (T - T_0)^2),$$

The reference temperature T_0 is usually 25°C, but there may be exceptions. The coefficients A and B are usually provided in the datasheet of the sensor.

Devices	PR200, SMI200
Version	1.12.13 and newer
Last modification	23.05.2019