

Smart IR_{t/c}TM

Infrared Temperature Sensor

EXERGEN

C O R P O R A T I O N

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TA Pull Down Pin

Option Description

The TA Pull Down Pin allows the user to select whether the Smart IR_{t/c}TM output the target temperature or the ambient temperature. This is achieved by pulling and holding the pin to ground. For as long as the pin is held low, plus one response time (less than 250 msec), the unit will output ambient temperature, releasing the pin will return the unit to normal operation.

There are two main benefits of this feature; you can not know the ambient temperature with out a second device and the more sophisticated can determine the heat flow from the target. Knowing the heatflow can be useful in some applications; it can also allow you to correct for emissivity errors.

Option Specifications

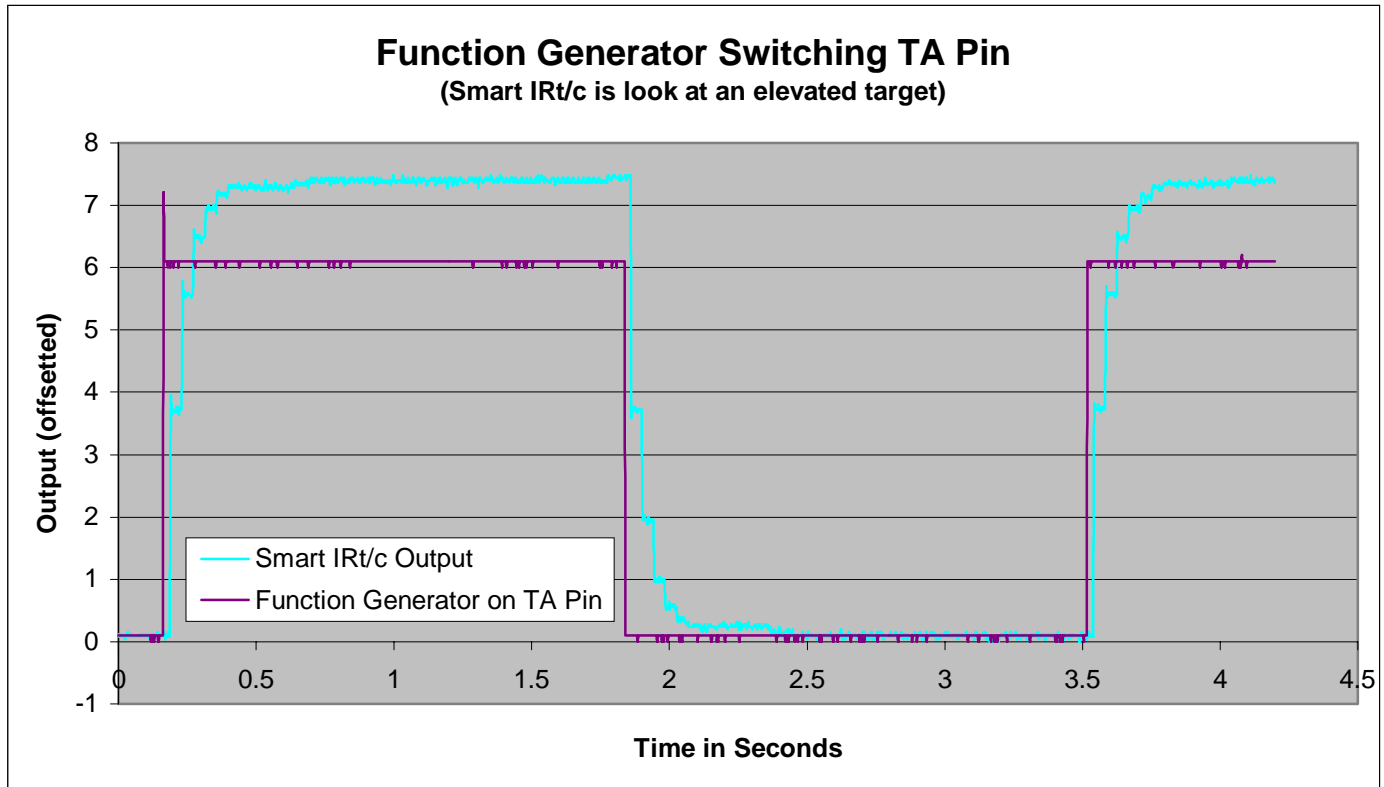
Ambient Temperature Range	0 °C to 70 °C (32 °F to 158 °F)
TA Pull Down	Pull down below 0.5V *
Maximum Switch Time for Output Toggle	One Response Time, 250 msec
Time Constant after Switch	Less than 650 msec
Pin Color	Normally Brown
TA output 0-5V models	50 mV / °C (0-70 °C, 0-3.5V)
TA output 0-10V models	10 mV / °C (0-70 °C, 0-7.0V)
TA output 4-20mA models	0.229 mA / °C (0-70 °C, 4-20mA)
TA output RS232 models	Degrees C

* Applying a voltage above 5.4V may cause the unit to freeze or malfunction, restarting without the high voltage present should reset the unit. Pulling the pin significantly high can cause permanent damage.

Internally the input is tied high with a minimum of a 12K impedance to a 5V +/-5% rail.

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Graphs and Supporting Data



Sample Circuit to Use TA Pin

