

# T60 TEMPERATURE SENSOR

## TECHNICAL PRODUCT SHEET



### Tools Required

- 8 mm (5/16 inch) nut driver or wrench (electric nut driver preferred)
- Small NRG screw driver
- Sheet metal shears (for trimming hose clamps)

### Recommended Maintenance

- Inspect the sensor body and cable for wear and tear (annual).
- Review data against a reference to verify accuracy (annual).

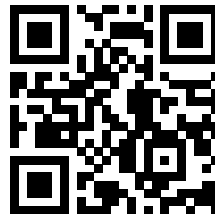
### Overview

The T60 is ideally suited for the temperature measurement requirements of remote wind and solar energy studies. Recommended uses of the data from this sensor include:

- Estimating PV panel efficiency
- Calculating energy density
- Calculating atmospheric stability conditions
- Identifying icing conditions in cold climates
- Monitoring air temperature

### Specifications

<b>Measurement Range</b>	-40 °C to 70 °C (-40 °F to 158 °F)
<b>Signal Type</b>	Linear analog voltage
<b>Transfer Function</b>	Default Slope: voltage x 44.74364 °C Default Offset: -40.85555 °C
<b>Output Signal</b>	0.020 to 2.480 V DC
<b>Supply Voltage</b>	5 to 15 V DC
<b>Supply Current</b>	1.2 mA max. (no load on output) SymphoniePRO Pulsed: 0.85 mA
<b>Mounting</b>	Attaches to tower with included hose clamps



[Click for T60 Video](#)

## T60 Temperature Sensor Installation Process

1. Wrap the hose clamp around the tower and begin tightening. Insert the T60 boom and tighten the hose clamp with the nut driver until the sensor is secure. Do not over-tighten.
2. Trim the ends of the hose clamps, or secure them in place so they do not move freely.
3. Wire the sensor cable into the data logger.
4. Program the data logger as outlined below.

**Sensor Wire**      **Logger**

Red <span style="color:red">+</span>	Excitation	---	EXC
Blk <span style="color:black">-</span>	Ground	---	GND
Wht <span style="color:white">□</span>	Signal	---	SIG
	Shield	---	SHD

Description: NRG T60 Temp 1

Serial Number:  2

Height:  Meters 3

Boom Bearing:  Degrees 4

**Sensor Transfer Function**

Scale Factor:  C per V 5

Offset:  C

Units:

**Enable Configuration**

Enabled

Sensor Type	Description	Units	Slope	Offset
NRG BP60 <span style="float:right">1</span>	NRG BP60	hPa	244.19283	494.94879 <span style="float:right">5</span>

Serial Number	Height (m)	Elevation Angle	Azimuth Angle	Modbus Address
000000000 <span style="float:right">2</span>	0.00 <span style="float:right">3</span>	0.0	0.0 <span style="float:right">4</span>	10036

## 4 Data Logger Programming

For SymphoniePRO, use the NRG SymphoniePRO Desktop Application.

For LOGR-S Data Loggers, use the web UI by navigating to the LOGR's IP address in a web browser.

Navigate to the Channel Configuration tab or web page (depending on the logger type) to configure the sensor.

1. Choose "NRG T60" from the sensor selection drop down menu.
2. Enter the sensor's serial number (found on the end of the sensor cable)
3. Enter the height (elevation) of sensors from the ground.
4. Enter the direction (azimuth) the sensor is installed on the tower.
5. Enter the sensor's unique slope and offset – found on the sensor's calibration report. Report can be looked up by serial number [here](#).

### For more information:

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 ISO 9001: 2015 Certified  
 ISO 14001: 2015 Self-Certified