



Room Relative Humidity and Relative Humidity/ Temperature Sensors



Description

Staefta TALON[®] Room Relative-Humidity (RH) and Relative-Humidity-and-Temperature (RH/T) Sensors offer a wide range of features and functions to deliver exceptional occupant comfort – even in demanding environments. Their attractive, compact design results in an attractive, inconspicuous installation. A styled ventilation ring allows substantial airflow through the cover for fast measurement response and superior control.

The range of models includes **humidity sensing-only and humidity and temperature sensing-only, and humidity and temperature full-featured versions**. All units are calibrated using a National Institute of Standards and Technology (NIST) standard and incorporate a humidity-sensing element made of a bulk-resistive polymer. The combination temperature/humidity units use a transmitter to send a 0-10 volt signal for both temperature and humidity. These sensors are available in 5% or 2% RH accuracy variations.

All sensors have a RJ-11 port located at the bottom of the sensor for connection to the *EasyCal Plus*[™] Humidity Calibrator. This calibrator can be connected to verify humidity sensor operation and perform a one-point offset adjustment if necessary.

Features

Sensing-only models offer accurate measurement of humidity-only or humidity and temperature. They connect either to a Raptor or Predator Controller and provide excellent monitoring when room occupancy or mode override is not required. Full-featured versions include a 2-line digital display of humidity and temperature, temperature set-point adjustment arrows and a day/night override button.

Specifications – Humidity Element

Operating range	0 to 100% RH
Accuracy at 77°F (25°C) (element only)	±5% or ±2% RH over 20-95% RH including hysteresis, linearity, and repeatability
Operating temperature	32 to 122°F (0 to 50°C)
Temperature effect	Less than 0.06% per degree Fahrenheit (0.11% per degree Celsius)
Output signal-RH only units	4-20 mA DC, 0-100% linear, proportional
Output signal-RH/T units	0-10 Vdc, 0-100% linear, proportional
Calibration requirements	Annually (field calibration using the EasyCal Plus)
Polarity Protection	Yes

Specifications – Temperature Element

(Combination humidity and temperature versions)

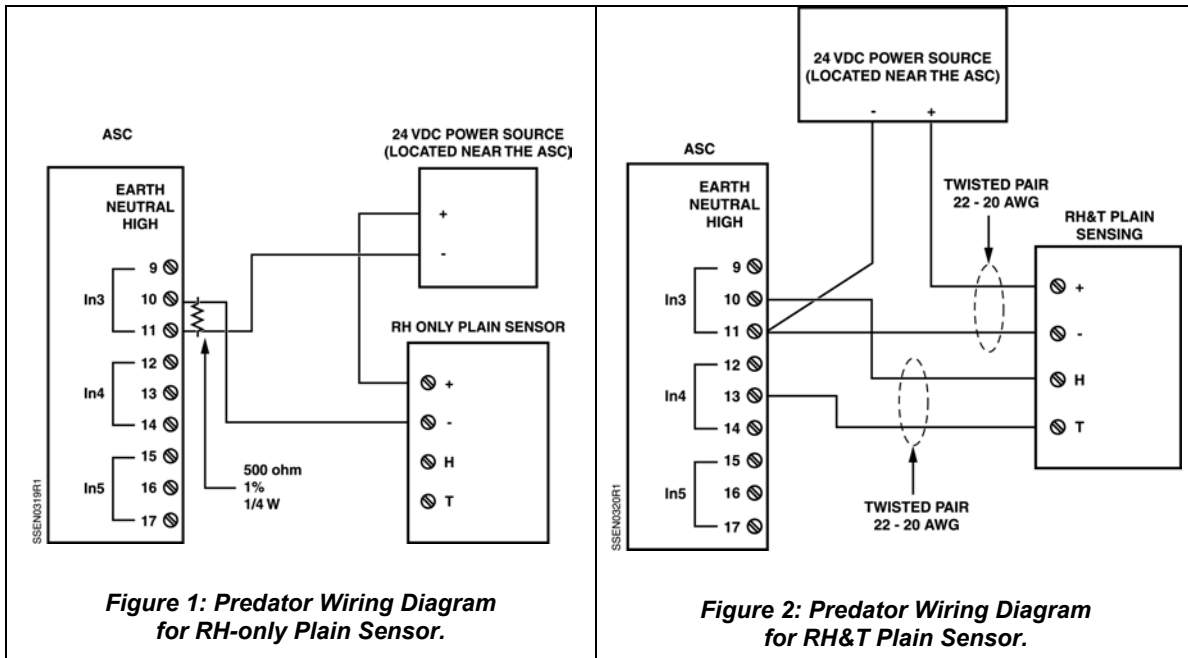
Operating range	32 to 122°F (0 to 50°C)
RTD Calibration Point	32°F (0°C)
Sensing Elements	1K Platinum RTD (temperature element only, bulk-polymer humidity element)
Output Signal	0-10 Vdc, 32 to 122°F (0 to 50°C) linear, proportional
Setpoint adjustment range	73°F ± 10°F (23°C ± 10°C)
Calibration requirements	None required

Specifications

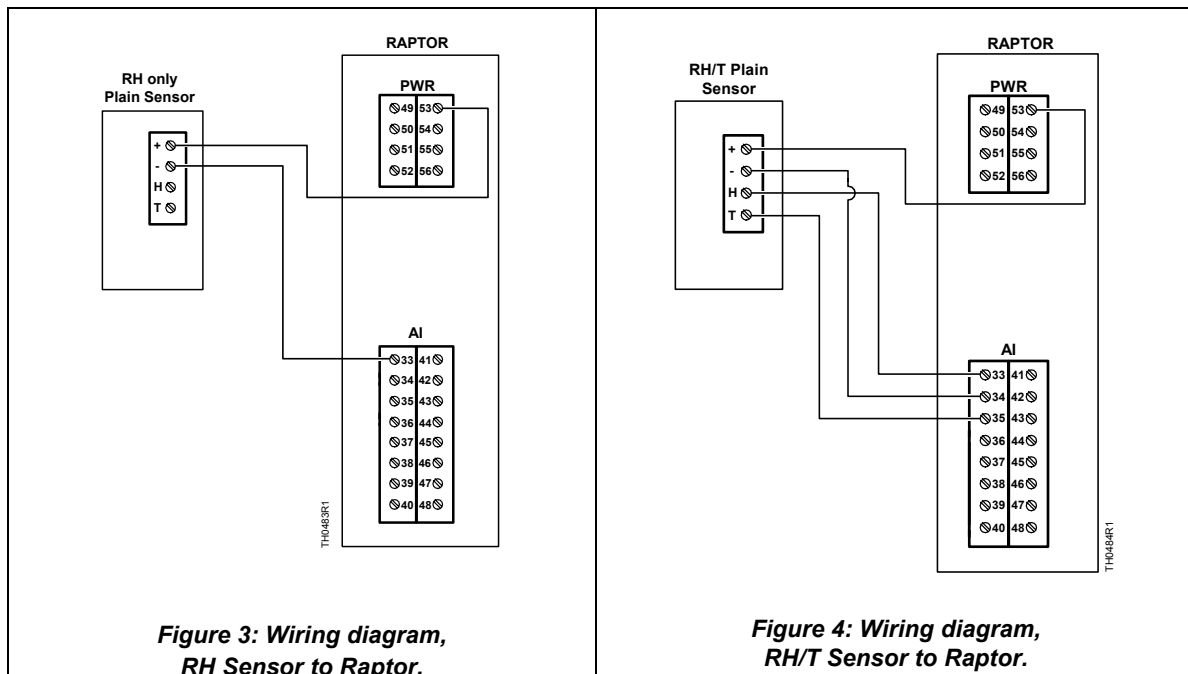
Installation	750 feet (229 m) max. cable length using 18 to 22 AWG twisted pair shielded cable (overall shielded cable for Full-Featured Units), NEC Class 2
Connections	Screw terminals
Cover dimensions	3-11/32" H × 2-1/2" W × 1-1/2" D (85 mm × 63 mm × 38 mm)
Color	White
Voltage requirement	18 to 35 Vdc

Wiring Diagrams

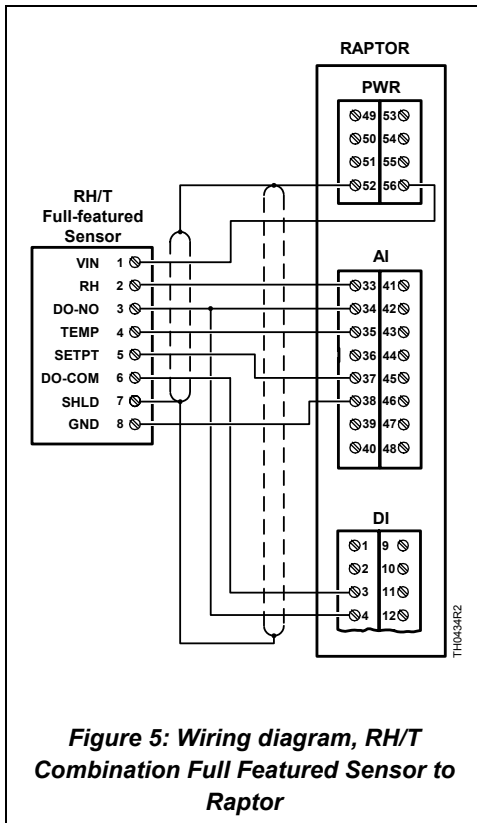
TALON RH and RH/T Sensors – Wiring to Predator Controller



TALON RH and RH/T Sensors – Wiring to Raptor Controller



TALON RH/T Combination Full-Featured Sensor – Wiring to Raptor Controller



Ordering Information

Room Sensors

Description	Accuracy %	Features	Product Number
RH @ 5%	5	5% RH Sensing (blank cover)	587-190
RH @ 2%	2	2% RH Sensing (blank cover)	587-191
RH/T @ 5%	5	5% RH with Temperature Sensing (blank cover)	587-192
RH/T @ 2%	2	2% RH with Temperature Sensing (blank cover)	587-193
RH/T @ 5%	5	Full-Featured RH/T Room Sensor 5%	587-194
RH/T @ 2%	2	Full-Featured RH/T Room Sensor 2%	587-195

Accessories

Description	Product Number
EasyCal Plus Humidity Calibrator	538-897
Sensor Backplate	544-781B
Double Adapter Base Kit	544-783B
Extender Ring Kit	544-785B
Non-Conduit Rough-In Kit	544-784

Notice: Information in this document is based on specifications believed correct at the time of publication. The right is reserved to make changes as design improvements are introduced.

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