# Gemini Data Sheet

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# Tinytag Ultra Relative Humidity TGU-0304

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# **Mechanical Data**

Case Style: IP53 Plastic shell

#### **Case Dimensions**

Height: 72mm / 2.83 Width: 60mm / 2.36 Depth: 33mm / 1.3 Weight: 50g / 1.8 oz.

#### **Features**

Memory Size : 8k (Non-volatile)

No. of Readings: 7900 Resolution: 8 bit

Delayed Start: Relative / Actual

up to 45 days

Stop Options: When Full

After n Readings Never (Wrap around)

Reading Types: Actual, Min, Max. Logging Interval: 1 sec to 10 days

Offload: While stopped or when logging in

minute multiples

Alarms: Two, fully

Programmable

Functional Range : -20°C to +85°C / -4°F to +185°F

IP Rating: IP53 splashproof

Battery Life: Up to 5 years

#### Notes:

Battery replacement recommended every 2 years. It may be replaced with Saft 3.7V 1/2AA Lithium cells. Stop the unit logging before replacing the battery.

Functional Range describes the limits to which the datalogger may be subjected, **not** the range over which it will record.

# Special Notes

When using the units at low temperatures, condensation may form. Before opening the case, allow the units to reach room temperature. The IP53 rating is only valid when the rubber connector cap is fitted and the unit is oriented with the hanging tab uppermost.

The RH sensor will resist small amounts of the following chemicals: Formaldehyde, Ammonia, Carbon Monoxide, Sulfur Dioxide, Ethylene Oxide, Hydrogen Chloride, Hydrogen Fluoride, Hydrogen Peroxide, Nitrogen Dioxide, Methyl Chloride, Chlorine, Freon, Methanol, Ethanol, Isopropanol and ozone. It also offers resistance to ultraviolet rays. The sensor can be cleaned in de-ionised water or pure isopropanol but **not with abrasive detergents.**Surface scratches or residue will compromise the accuracy.

Salt solutions may cause permanent damage as crystals within the porous layers affect moisture levels there.

#### **Sensor Details**

Range: 0 to 95% RH Sensor Type: Capacitive

Sensor Accuracy: ± 3% at 25°C / 77°F

Temp. Dependency: Low

Response Time: 10 sec to 90%

(Non-condensing)

Resolution: Better than 0.5%RH

#### Notes:

The sensor is mounted in the base of the unit. It has excellent long-term performance and can be wetted without damage, however the accuracy will be temporarily impaired and it should be allowed up to 30 minutes to recover.

## **Approvals**

This equipment complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause any harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This product is manufactured within the Orion Group to ISO EN 9002 part 2 (Certificate No. 6134), and is CE approved to EN50081 part 1:1992 and EN50082 part 1 and 2:1992/95 with any standard leads or probes supplied.





NAMAS traceable calibration certificates are available on individual units.

#### **Interface Information and Related Products**

#### To use your Tiny Data Logger you will require:

Tinytag interface cable (CAB-0007), PC with GLM for Windows  $^{TM}$  (SW-0009) or Easyview for Windows  $95^{TM}$  (SW-0500); or Psion handheld computer, with Tinylink version 2.0 or above (SW-1101) and suitable cable (See Tinylink Data Sheet).

#### **Further Related Products:**

SER-9520 Tinytag Ultra Service Kit including battery and seal DWG-ULTRA Drawing with detailed dimensions of Tinytag Ultra casing

TGU-1500 Tinytag Ultra Temperature Range H (-30°C to +50°C / -22°F to +122°F) and Relative Humidity 2 channel logger.

### **Applications**

Heating and Ventilation Greenhouse monitoring Horticulture Museums and archives.

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