

Tinytalk Relative Humidity (0 to 95% RH)

TK-0302

Issue 13

17th October 2014
E&OE

Tinytalks are compact, lightweight, economical loggers housed in a 35mm film canister.

These loggers are used in a wide range of applications including fridge monitoring, building condition monitoring and academia.

The TK-0302 is self contained unit with a relative humidity sensor.

Popular Applications

- Building condition monitoring
- Pharmaceutical storage
- Dry food storage
- Museum display and repository



Features

- Relative humidity recorder
- 7,900 reading capacity (see Features)
- User-programmable logging interval
- 3 stop options
- Splash proof case
- User-replaceable battery





Features

Total Reading Capacity	7,900 readings (SN 373554 & above) 1,800 readings (below SN 373554)
Memory type	Non Volatile
Delayed Start	Relative / Absolute (up to 45 days)
Stop Options	When full After n Readings Never (overwrite oldest data)
Logging Interval	1 sec to 4.5 hours
Offload	While stopped

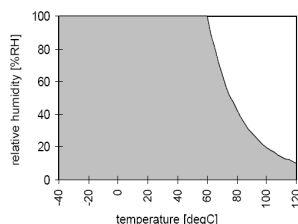
Reading Specification

Reading Range	0% to 95% RH
Sensor Type	Capacitive (External)
Accuracy	±3.0% RH at 25 °C / 77 °F
Reading Resolution	Typically 0.5%RH
Response Time	10 seconds to 90%

RH Sensor Working Range

The working range for the RH sensor is shown in terms of relative humidity / temperature limits.

Although the sensor will not fail beyond these limits, the accuracy will deteriorate.



Physical Specification

Ingress Protection	Not water-proof
Operational Range*	-40 °C to +85 °C (-40 °F to +185 °F)
Case Dimensions	
Diameter	34mm / 1.34"
Height	54mm / 2.13"
Weight	50g / 1.8oz

*The Operational Range indicates the physical limits to which the unit can be exposed, not the reading range over which it will record.

Calibration

This unit is configured to meet Gemini's quoted specification during its manufacture.

We recommend that the calibration of this unit should be checked every six months against a calibrated reference meter.

A certificate of calibration, traceable to a national standard, can be supplied for an additional charge either at the point of purchase, or if the unit is returned for a service calibration.

Notes

Battery Type	SAFT LS14250 or LST14250; Tekcell SBAA02P
---------------------	--

The logger will operate with other 1/2AA 3.6V Lithium (Li-SOCl₂) batteries but performance cannot be guaranteed.

Replacement Interval	Every two years
-----------------------------	-----------------

Before replacing the battery the data logger must be stopped.

Data stored on the logger will be retained after a battery is replaced.

If used at low temperatures the data logger should be allowed to warm to room temperature before it is opened to avoid condensation forming inside the unit.

If moisture forms on the unit's RH sensor readings will become unpredictable. Once the sensor has dried out, and provided no residue is left behind, the unit should return to normal reading within 30 minutes.

Any dust or residue that is allowed to build up on the RH sensor will affect the unit's reading accuracy.

The sensor may be cleaned with de-ionised water or pure isopropanol, but not with abrasive detergents, as scratches or residue will affect the accuracy.

The RH sensor will resist small amounts of the following chemicals: formaldehyde, ammonia, carbon monoxide, sulphur 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.

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

Approvals

Gemini Data Loggers (UK) Ltd. operates a Business Management System which conforms to ISO 9001 and ISO 14001.



Required and Related Products

To use this data logger you will require the following software:

SWCD-0040: Tinytag Explorer software

and a

CAB-0005-USB: Tinytag Transit / Talk USB Download Cable

The SWCD-0040 software and CAB-0005-USB cable can be ordered together in a pack using the part number SWPK-5-USB.

Further Related Products

SER-9500: Tinytag Data Logger Service Kit