

Datenlogger HAMSTER-A, Type AT1

The HAMSTER-A is the perfect solution for continuous temperature recording. Since this datalogger is fully watertight, it can be submerged to a maximum depth of 10 meters, or can also be buried directly into the soil. One application may be to leave the HAMSTER-A during the cleaning process of your current refrigerated chamber with superheated steam. The measurement values of the internal temperature sensor are stored in the datalogger memory. Using the elproLOG software and PC interface, one can easily transfer the data into any PC. The optical data communication is transferred via infrared, through the datalogger housing.

1. Technical Data

Time range:	programmable
Measuring clock:	From 1 minute till 3 hours
Memory:	64'000 readings
AT1:	-40°C ... +70°C
Accuracy:	see diagram
Resolution:	0.1°C (-20°C... +70°C)
Operating Temp.:	-40°C... +70°C (measuring) 0°C... +50°C (evaluation)
Time:	Accuracy of the internal clock +/-20 minutes/year
Software:	elproLOG > 3.31.09
INPOS:	Shows the time, during which the datalogger was placed into the bracket (part no 2802)
Housing:	ABS, SAN, welded
Weight:	120g
Sealed:	IP68, watertight
Battery life:	5 years, depending of use. Battery changeable by Elpro service only!
Magnetic interference:	Module is switched on for data transfer by a magnetic field.
Calibration:	Calibration certificate included



- This product is compliant with CE standards
- The manufacturer guarantees that this product complies with the relevant recommendations:

EN 50081-2 : 1992 and EN 50082-2 : 1992



This product has to be disposed according to WEEE
(Waste electrical and electronic equipment, 2002/96/EC)

2. Applications and Safety Regulations

2.1 Operating Temperatures

- The loggers can be used in the temperature range between -40°C and +70°C.
- Battery self-discharging increases at temperatures exceeding 45°C and continuous operation at temperatures above 45°C can reduce the serviceable life by approx. 1/3.
- Lithium battery passivation, due to long-term use at temperatures above 40°C, can result in temporary read problems (self-discharge protection). This can be rectified by repeated evaluation and communication.
- Long-term use at -40°C does not present any problems.
- We can not guarantee the logger will always function properly if it is subjected to temperatures below -40°C. Experience and data shows the battery freezes at approx. -50°C. In addition, it is no longer possible to perform temperature measurements, also the timer tracking function can be temporarily interrupted. It is sometime possible to communicate and program the logger, once it has been stabilized at room temperature for several hours.
- Temperatures exceeding 70°C can cause the housing to become distorted.

2.2 Exceptional Environmental Conditions

Pay attention to the following when loggers are used under exceptional environmental conditions:

- UV rays diminish the stability of the housing
- IR radiation (warmth) and superheated steam can result in housing distortion.
- If the logger is used at absolute pressures of <0.3bar, it is recommended to drill a small ventilation hole (Ø 2mm) into the logger body (request appropriate design at ELPRO). This measure avoids cracks in the plastic housing
- There is a risk that the battery may explode if the logger is used in conjunction with microwaves

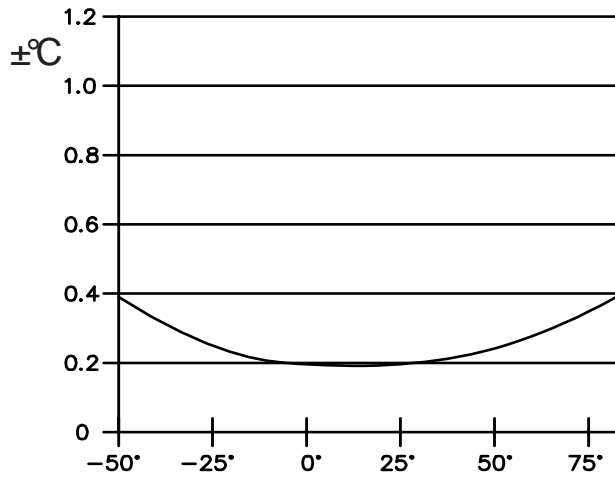
2.3 Precautionary Measures for Handling Units with Lithium Batteries

- Do not dispose of the battery(ies) into fire: They may explode
- Do not heat up battery-driven units to temperatures exceeding 100°C:
Danger of explosions
- Avoid violent shocks and blows

2.4 Technical Alterations

In the interest of our customers, we reserve the right to perform alterations resulting from subsequent technical developments without any particular notice. For this reason, diagrams, descriptions and the information concerning the scope of delivery are not binding!

3. Accuracy of NTC Temperature Sensors



4. Inscription Area



Please attach no markings or labels outside of the planned inscription area. The infrared data communication between the datenlogger and the interface takes place through the bottom of the datenlogger housing.

5. Part Numbers



Part no 4500
Hamster-A, Type AT1



Part no 2302
PC interface



Part no 2816
Simple mounting bracket



Part no 2802
InPos bracket

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