

Data logger for

humidity  
temperature

as of version V7.4

Operating Manual

## EASYLOG 24RFT

### EASYLOG 24RFT-E



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## 1 General note

Read this document carefully and get used to the handling of the device before you use it. Keep this paper ready to hand in order to look it up if a question turns up.

## 2 Intended use

The logger **EASYlog 24RFT...** is especially designed for long-time monitoring of temperature and humidity. Both the low power consumption and the high battery capacity ensure a long recording time. The last 48000 measuring values can be stored in the memory.

In addition the LCD-display constantly indicates the temperature and humidity measured at the moment and the operating status of the logger.

## 3 Required accessory:

The EASYBus interface is used to program, start and read out the **EASYlog 24RFT...**

Following accessory is required:

- Interface converter:  
    **RS232 <> EASYBus** (e.g. EBW1, EBW64, EBW240)  
    or  
    **USB <> EASYBus** (e.g. EBW3)
- Connecting cable: interface converter to **EASYlog** (EBSK ..)
- **GSOFT 40K** (> Version 5.0)  
    to start the logger and read out the logger data.

## 4 Safety instructions:

This device has been designed and tested in accordance with the safety regulations for electronic devices. However, its trouble-free operation and reliability cannot be guaranteed unless the standard safety measures and special safety advises given in this manual will be adhered to when using the device.

1. Trouble-free operation and reliability of the device can only be guaranteed if the device is not subjected to any other climatic conditions than those stated under 'Specification'  
**To protect the battery the max. permissible storage and transport temperature of the device is +70°C.**
2. General instructions and safety regulations for electric, light and heavy current plants, including domestic safety regulations (e.g. VDE), have to be observed.
3. If device is to be connected to other devices (e.g. via PC) the circuitry has to be designed most carefully. Internal connection in third party devices (e.g. connection GND and earth) may result in not-permissible voltages impairing or destroying the device or another device connected.
4. If there is a risk whatsoever involved in running it, the device has to be switched off immediately and to be marked accordingly to avoid re-starting.

Operator safety may be a risk if:

- there is visible damage to the device.
- the device is not working as specified.
- the device has been stored under unsuitable conditions for a longer time.

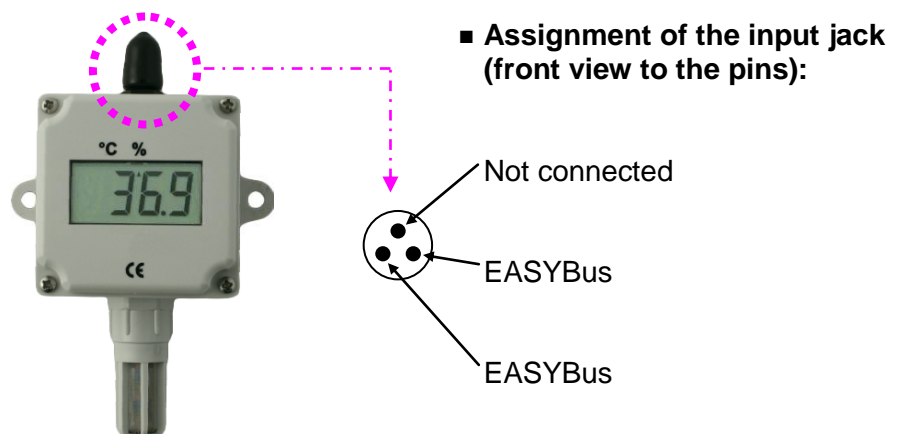
In case of doubt, please return device to manufacturer for repair or maintenance.

### 5. Warning:

Do not use this product as safety or emergency stop devices, or in any other application where failure of the product could result in personal injury or material damage.

**Failure to comply with these instructions could result in death or serious injury and material damage!**

## 5 Connection



## 6 Advice regarding state of logger upon delivery:

The delivered logger is in a “sleep mode”, that means nothing is displayed and the power consumption is at its minimum. When there is a communication with the software for the first time, the **EASYlog** leaves the sleep mode and ›Stop‹ is displayed. Then the device is ready for operation.

Note: The sleep mode (nothing is displayed) cannot be restored again.

“Stop“ or “Halt“ are similar to the sleep mode. Both of this operating modes ensure minimum power consumption.

## 7 Battery service life and recording time

<b>Measuring cycle:</b>	4 sec.	30 sec.	1 min.	15 min.
<b>Recording time:</b>	53 hours	16.5 days	33 days	500 days
<b>Battery service life:</b>	Approx. 300 days	Approx. 3-4 years	Approx. 4-5 years	Approx. 6-8 years

**Please note!** Short measuring cycles as well as frequently measuring data transfer result in a reduction of the battery service life!



## 8 Disposal instructions:



Dispense exhausted batteries at destined gathering places.

This device must not be disposed as ‘residual waste’.

According to the ElektroG (*law for bringing into market, the return and the environmentally friendly disposal of electronic equipment*) we accept the return of this device, please send it directly to us (adequately stamped). We will dispose it appropriately and environmentally friendly.

## 9 Operating mode display:

The Logger is equipped with a 10 mm LCD display.

The LCD mainly displays measured values. It changes constantly between display of temperature and humidity. Depending on the operational state additional messages may be display.

### STOP:

The **EASYLOG** is 'stopped'. No data are recorded. The logger memory is empty. The logger is reset and can be restarted.

### HALT:

The **EASYLOG** has been 'halted'. The stored data can be read. The logger memory is not empty.

### DISPLAY OF TEMPERATURE:

The small arrow points to "°C". The logger is active. Measurements are carried out at certain intervals. The measured values will be stored. The measured temperature will be displayed.

### DISPLAY OF HUMIDITY:

The small arrow points to "%". The logger is active. Measurements are carried out at certain intervals. The measured values will be stored. The measured humidity will be displayed.

### START DELAY:

The logger is active, but no data are recorded. As soon as the start delay time has expired, the logger will start recording in accordance with the starting conditions programmed before.

### START ALARM:

The logger is active, but no data are recorded. Recording will start as soon as the temperature and the humidity is within the min. and max. alarm limits.

### BATTERY:

The battery of the Logger is getting discharged soon. Replace the battery briefly. Please return logger to the manufacturer.

### ALARM LOW:

The measured value (small arrow points to the referring unit of the concerned measuring) is below the min. alarm limit.

### ALARM HIGH:

The measured value (small arrow points to the referring unit of the concerned measuring) is below the max. alarm limit.

### ERROR 1:

Measured value exceeds measuring range of the logger.

### ERROR 2:

Measured value has been fallen below the measuring range of the logger.

### ERROR 7:

The Logger has detected a system fault. Potential causes: at recording logger the bus voltage was frequently interrupted, device failure

- Remedy: connect logger with the GSOFT 40K and reset the system fault.
- check wiring (defective contact).
- If the error message displayed furthermore, please send the logger to the manufacturer to repair.

## 10 Specification

<b>Measuring range:</b>	
<b>Temperature</b>	-25.0 ... 60.0 °C
<b>Humidity</b>	0.0 ... 100.0 %RH
<b>Resolution:</b>	0.1°C and 0.1 %RH (display and memory)
<b>Accuracy:</b> (at nominal temperature)	
<b>Temperature</b>	± 0.5 °C
<b>Humidity</b>	± 3 % (at range 11-90 %RH)
<b>Sensors:</b>	Pt1000, 2-Leiter; high-quality capacitive polymer humidity sensor
<b>Sensor tube:</b>	
<b>EASYLOG 24RFT:</b>	approx. Ø 15 mm, made of polyamide
<b>EASYLOG 24RFT-E:</b>	approx. Ø 14 x 68 mm, made of PVDF, connected to logger housing via approx. 1 m Teflon cable.
<b>Protection cap:</b>	screw-type plastic protection cap for quick response, made of polycarbonate.
<b>Display:</b>	LCD display, 10 mm high, 4-digit
<b>Recording interval:</b>	4s to 5h
<b>Measuring value memory:</b>	48,000 values
<b>Memory type:</b>	
<b>FILLING MEMORY:</b>	Once the memory is filled with data, the recording will automatically be halted.
<b>RING MEMORY:</b>	The old data will be overwritten in case of memory overflow.
<b>Recording time:</b>	approx. 53 hours up to 8 years, depending on measuring cycle.
<b>Battery service life:</b>	approx. 6-8 years (if interval is 15 min.), depending on measuring cycle and operating temperature.
<b>Alarm function:</b>	the measured values are monitored at alarm limits. Alarm limit and alarm delay (0 ... 1092 min.) adjustable via interface.
<b>Nominal temperature:</b>	+25 °C
<b>Working temperature:</b>	-25 ... +60 °C
<b>Storage temperature:</b>	-30 ... +70 °C
<b>Interface:</b>	EASYBus, 3-pin miniature plug.
<b>Busload:</b>	2 EASYBus-devices.
<b>Data communication:</b>	via interface converter.
<b>Dimensions / housing:</b>	48.5 x 48.5 x 35.5 mm (H x W x D, plug, fixation flap and sensor tube not included). Housing made of shock resistant plastic, transparent front made of polycarbonate, splash water-proof: IP 65 (protection cap = IP40)
<b>EMC:</b>	The device have been manufactured in accordance with the regulations concerning EMC (2004/108/EG). The device meets EN61326-1 (table 2, class B). <i>Note: avoid ESD in the area of the sensor protection cap!</i>