EBI 25 Wireless System

MONITORING OF TEMPERATURE, HUMIDITY, AND MANY OTHER MEASUREMENTS
Online Monitoring of Temperature, Humidity and Many Other Measurements

The EBI 25 system for wireless monitoring of temperature, humidity and other measurements assures that perishable goods are produced and stored at the right conditions at all times. Other measurements can be integrated using Modbus over IP.

**Continuous monitoring**

of all areas where food, pharmaceutical and medical products are produced and stored.

**Avoid loss of goods**

with the continuous monitoring of all crucial temperature points - 24 hours on 365 days a year.

**Quick intervention before it is too late**

with a very wide and flexible alarm management (notification via email or acoustical).

**Automatic documentation**

through automatic recording, storage, and reporting of the measured data. Problems can easily be traced and audit reports can be generated instantly.

**Worldwide access to the measurement data**

via internet – at any time, any place and any PC with internet and network access. Security is ensured using a login and password.

**Easy handling**

saves time, efforts and energy.
Applications

**Food sector**
- Continuous monitoring of cooling equipment, cool rooms and deep-freeze rooms
- Monitoring of room temperatures and humidity values in a store

**Pharmaceutical / medical sector**
- Continuous monitoring of temperature sensitive goods like blood plasma or medicine
- Temperature and humidity monitoring and other measurements in cooling chambers, clean rooms and incubators

Benefits

**Food sector**
- Compliance with the HACCP guidelines
- All devices according to DIN EN 12830
- Up to date reports always ready for food inspectors

**Pharmaceutical / medical sector**
- FDA 21 CFR Part 11 functionality
- Up to date reports generated on-demand for audits and inspections

Technical Data

<table>
<thead>
<tr>
<th>Type</th>
<th>EBI 25-T</th>
<th>EBI 25-TE</th>
<th>EBI 25-TX</th>
<th>EBI 25-TH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Probes</td>
<td>Internal</td>
<td>External</td>
<td>External for very deep temperatures</td>
<td>Internal: temperature External: humidity</td>
</tr>
<tr>
<td>Measurement range: temperature</td>
<td>-30 °C … +60 °C</td>
<td>-40 °C … +85 °C</td>
<td>-200 °C … +199.9 °C</td>
<td>-30 °C … +60 °C</td>
</tr>
<tr>
<td>Measurement range: humidity</td>
<td></td>
<td></td>
<td></td>
<td>0% rH … 100% rH</td>
</tr>
<tr>
<td>Accuracy: temperature</td>
<td>±0.5 °C (-20 °C … +40 °C) ±0.8 °C for the remaining measurement range</td>
<td>±0.5 °C (-20 °C … +40 °C) ±0.8 °C (-30 °C … -20 °C) ±40 °C … +60 °C)</td>
<td>±1.5 °C (-40 °C … -30 °C and +60 °C … +85 °C)</td>
<td>±0.5 °C (-20 °C … +40 °C) ±0.8 °C for the remaining measurement range</td>
</tr>
<tr>
<td>Accuracy: humidity</td>
<td>±3 %</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resolution: temperature</td>
<td>0.1 °C</td>
<td>0.1 °C</td>
<td>0.1 °C</td>
<td>0.1 °C</td>
</tr>
<tr>
<td>Resolution: humidity</td>
<td></td>
<td>0.1% rH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Memory capacity</td>
<td>288 measurements</td>
<td>288 measurements</td>
<td>288 measurements</td>
<td>576 measurements (288 measurements per channel)</td>
</tr>
<tr>
<td>Sensor</td>
<td>NTC</td>
<td>NTC</td>
<td>Pt 1000</td>
<td>NTC</td>
</tr>
<tr>
<td>Protection class</td>
<td>IP 67</td>
<td>IP 67</td>
<td>IP 67</td>
<td>IP 20</td>
</tr>
</tbody>
</table>

General technical data

| Measurement interval | 1 min. to 24 hours, adjustable |
| Radio frequency | 868 MHz |
| Battery | 3.6 V lithium (user replaceable) |
| Battery lifetime | Up to 2 years, depending on transmission rate |
| Storage temperature | -40 °C … +70 °C |
Functionality

The innovative EBI 25 system monitors wirelessly, transmits the data in real time to an interface (base station) and from there to the desired server or PC.

**EBI 25 series data loggers**
- Precise measurement of temperature and humidity (depends on logger type)
- Very large range of up to 500 m in a free field
- Long battery lifetime
- Easy installation

**Base station: IF 400 interface**
- Collects and stores the data of all connected EBI 25 data loggers
- Connection of up to 50 loggers per interface possible
- Stores up to 576 measurements per logger
- Direct connection of any number of interfaces to a PC or the network
- Audible alarm (with optional alarm box)

**USB cable / Ethernet**

Embedding of other measurements possible:
- Pressure
- CO₂
- NH₃
- O₂
- Many others
As soon as a temperature, humidity or any other measurement has exceeded a user defined limit, an alarm is immediately sent via email.

**Evaluation on the PC**

Connection for visual or audible alarm.

**Work place**

**Measurement management software:**

Winlog.web and Winlog.wave

**Print**

**Email distribution**

**Winlog.wave:**

Basic version for local PC usage

- Single PC solution: The basic version for easy measurement data evaluation on a single PC - no network required.
- Flexible alarm management: graphic and email alarm notifications upon user defined conditions
- Connection to the IF 400 via USB
- FDA 21 CFR Part 11 data security functionality

**Winlog.web:**

Professional version internet and local network based use

- Web based client/server solution: the measurement data can be evaluated on all PCs and smartphones via the internet or connected to the local network
- Very flexible and wide alarm management: alarm notifications upon user defined conditions, alarm notification via email; visual and audible alarm via the graphical user interface
- Connection of the interface IF 400 via USB and Ethernet
- FDA 21 CFR Part 11 data security functionality
- Management of larger data sets
- IQ / OQ documentation available

Quick graphical overview of all measurement points including an image or floor plan view

For more information please contact us:

+49 841 95478-0
Winlog.mobile:
Free-of-charge app shipped with the Winlog.web
- Always up-to-date – anywhere
- All measurements at a glance
- Alarming via ring tone or vibration
- Display of the alarms list
- Forwarding the alarm messages to persons in charge
- For mobile phones with iOS or Android operating systems

The bronze sintered filter AH 200 provides a strong protection from mechanical strain. It has no aperture windows like the plastic protection cap shipped by default, but covers the probe completely. The sintered material lets the humidity through, though. The protection class increases to IP 40.

The stainless steel sintered filter AH 300 also increases the protection class to IP 40. The stainless steel massively increases the mechanical protection, e.g. from crushing the filter. Nothing will happen to your probe! In addition, the stainless steel is highly resistant to corrosion even in high temperature applications.

The PTFE-filter AH 100 provides little protection from mechanical strain but seals the probe from dust – protection class IP 60. In dusty environments, unprotected humidity probes, or probes protected by sintered filters, can quickly be covered by dust. This massively affects the humidity measurement, or prohibits it entirely. It won’t happen with the PTFE filter.

Types of filters
There are three different filters for the EBI 25-TH:
Sets and Accessories for EBI 25

**EBI 25-T-SET** Wireless temperature logger set (3 EBI 25-T loggers, evaluation software Winlog.wave, interface, 3 wall mounts)

**EBI 25-TE-SET** Wireless temperature logger set (3 EBI 25-TE loggers, evaluation software Winlog.wave, interface, 3 wall mounts)

**EBI IF 400** Interface including antenna

**AG 152** Wall mount for EBI 25

**AL 116** external antenna ·for the interface EBI IF 400 interface for more power, optional
## How to order:

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBI 25-T</td>
<td>Wireless temperature logger (with internal sensor)</td>
<td>1340-6200</td>
</tr>
<tr>
<td>EBI 25-TE</td>
<td>Wireless temperature logger (with external probe)</td>
<td>1340-6201</td>
</tr>
<tr>
<td>EBI 25-TX</td>
<td>Temperature data logger (with probe TPX 25-3)**</td>
<td>1340-6204</td>
</tr>
<tr>
<td>EBI 25-TX</td>
<td>Temperature data logger (without probe)</td>
<td>1340-0025</td>
</tr>
<tr>
<td>TPX 25-3</td>
<td>Pt 1000 probe for EBI 25-TX, 3 m</td>
<td>1341-0025</td>
</tr>
<tr>
<td>TPX 25-5</td>
<td>Pt 1000 probe for EBI 25-TX, 5 m</td>
<td>1341-0026</td>
</tr>
<tr>
<td>TPX 25-7,5</td>
<td>Pt 1000 probe for EBI 25-TX, 7.5 m</td>
<td>1341-0027</td>
</tr>
<tr>
<td>TPX 25-10</td>
<td>Pt 1000 probe for EBI 25-TX, 10 m</td>
<td>1341-0028</td>
</tr>
<tr>
<td>EBI 25-TH</td>
<td>Wireless temperature / humidity logger</td>
<td>1340-6202</td>
</tr>
<tr>
<td>AH 100</td>
<td>PTFE filter for EBI 25-TH</td>
<td>1340-5627</td>
</tr>
<tr>
<td>AH 200</td>
<td>Bronze sintered filter for EBI 25-TH</td>
<td>1340-5626</td>
</tr>
<tr>
<td>AH 300</td>
<td>Stainless steel sintered filter for EBI 25-TH</td>
<td>1340-5625</td>
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<tr>
<td>EBI 25-T-SET</td>
<td>Wireless temperature logger set (3 EBI 25-T loggers, evaluation software Winlog.wave, interface, 3 wall mounts)</td>
<td>1340-6220</td>
</tr>
<tr>
<td>EBI 25-TE-SET</td>
<td>Wireless temperature logger set (3 EBI 25-TE loggers, evaluation software Winlog.wave, interface, 3 wall mounts)</td>
<td>1340-6221</td>
</tr>
<tr>
<td>EBI IF 400</td>
<td>Interface incl. antenna</td>
<td>1340-6210</td>
</tr>
<tr>
<td>AG 152</td>
<td>Wall mount for EBI 25</td>
<td>1340-6215</td>
</tr>
<tr>
<td>Winlog.wave</td>
<td>Software (single-user version)</td>
<td>1340-2391</td>
</tr>
<tr>
<td>Winlog.web</td>
<td>Software (web-based version)</td>
<td>1340-2390</td>
</tr>
<tr>
<td>AL 116</td>
<td>External antenna for EBI IF 400 for increasing the transmission power</td>
<td>1340-6211</td>
</tr>
</tbody>
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