

# Software

ebro offers exactly the software you need:

- Evaluation software for any applications:  
Winlog.pro
- Evaluation software for EBI 25 data loggers:  
Winlog.web
- Evaluation software for pharmaceutical and medical applications:  
Winlog.med and Winlog.validation

Software/Features	Winlog.pro	Winlog.med	Winlog.validation	Winlog.web
Event Triggered Recording	●	●	●	●
Script-Calculations	●			●
System-Scripts	●			
Picture Manager	●		●	
Measure in Charts	●			
Cursor	●	●	●	
Realtime Calculations	●	●	●	●
Ranges	●	●	●	
Range-based Calculations	●	●	●	
Statistics per Range	●	●	●	
Relative Time Axis	●			
Configurations	●	●(2)	●(2)	
Firmware-Update	●	●	●	●
Import	●(1)			
Calibration	●	●	●	
Automatic File Name Generation	●			
21 CFR Part 11	●	●	●	●
User Administration	●	●	●	●
Audit-Trail	●	●	●	●
Advanced Chart Features	●			
Multi Document Support	●	●	●	
Export (Excel, PDF)	●	●	●	●
Customizable Company Logo	●	●	●	●
Wireless Support	●	●	●	●
2D Placement	●		●	●
3D Placement			●	
Routine Check	●(3)	●	●	
Validation	●(3)		●	
Unit Administration	●	●	●	●
Split Measurements	●	●	●	
Advanced Alarm-Management (Zones)	●(5)			
App Winlog.mobile				●
IQ/OQ	●		●	●

(1) Winlog.validation  
(2) Template based

(3) Manual  
(4) Since V2.5  
(5) EBI 310 only

(6) Since V2.6  
(7) Since V3.3  
(8) Since V3.5

(9) Since V2.8  
(10) Since V3.7



Supported Logger Types	Winlog.pro	Winlog.med	Winlog.validation	Winlog.web
EBI 10	●	●	●	
EBI 11	●	●	●	
EBI 12	●(9)	●(10)	●(10)	
EBI 16		●(8)	●(8)	
EBI 20	●	●(7)	●(7)	
EBI 25				●
EBI 40	●	●(7)	●(7)	
EBI 100	●	●	●	
EBI 310	●(6)	●(7)	●(7)	
CT 830	●	●	●	
PHT 830	●	●	●	

System Requirements	Winlog.pro	Winlog.med	Winlog.validation	Winlog.web
Windows Vista / 32 bit	●	●	●	●
Windows Vista / 64 bit	●	●	●	●
Windows 7 / 32 bit	●	●	●	●
Windows 7 / 64 bit	●	●	●	●
Windows 8 / 32 bit	●	●	●	●
Windows 8 / 64 bit	●	●	●	●
Windows 10 / 32 bit	●	●	●	●
Windows 10 / 64 bit	●	●	●	●
Memory	≥ 1GB	≥ 1GB	≥ 1GB	≥ 4 GB
Hard Disc Memory	≥ 300 MB	≥ 1 GB	≥ 1 GB	≥ 20 GB
CD/DVD Drive	●	●	●	●
Screen Resolution	≥ 1024x768	≥ 1024x768	≥ 1024x768	≥ 1024x768
Processor	Pentium 1GHz+	Pentium 1GHz+	Pentium 1GHz+	Dual Core 2 GHz+

Market Overview	Winlog.pro	Winlog.med	Winlog.validation	Winlog.web
Food	●			●
Industry	●		●	●
Pharmaceutical	●		●	●
Medical	●	●	●	●

Available Languages	Winlog.pro	Winlog.med	Winlog.validation	Winlog.web
English	●	●	●	●
French	●	●	●	●
Italian	●	●	●	●
Spanish	●	●	●	●
Chinese	●	●	●	●
Japanese	●	●	●	
Korean	●	●	●	
Portuguese		●	●	
Greek		●	●	
Czech	●	●	●	●
Swedish	●	●	●	
Dutch	●	●	●	
German	●	●	●	●
Turkish		●	●	
Polish		●	●	
Norwegian		●	●	

# Evaluation Software for Any Applications

## Winlog.pro

For the programming and reading of ebro data loggers and for the evaluation of the measured values, ebro offers the professional software **Winlog.pro**.

### Benefits

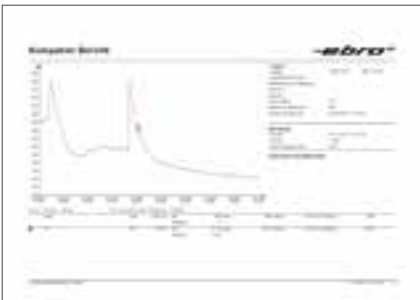
- Easy installation
- Easy programming of the data loggers, no prior knowledge required
- Extensive and custom report generation
- Suitable for all applications
- Security by compliance with FDA 21 CFR Part 11

### Extensive Report Generation

The software makes it easy to generate standard and custom reports:

- Compact, one-sided report (1)
- Multi-page, detailed report (2)
- Tabular report with the measurement values (3)
- Insertion of your own company logo possible (4)
- Export data to Microsoft Excel® and PDF (5)
- Integration of pictures and graphics possible (Winlog.pro only) (6)

(1)



(3)

 A screenshot of a multi-page, detailed report. It displays a large table with multiple columns of measurement values, organized into sections. The ebro logo is visible in the top right corner.

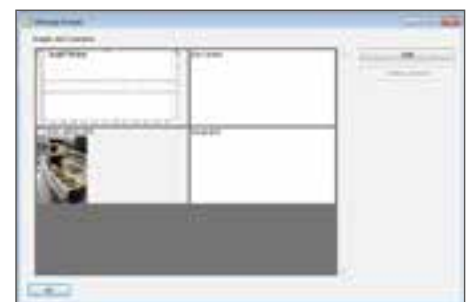
(5)

 A screenshot of a tabular report with measurement values, showing data exported to Microsoft Excel. The table has multiple columns of data, and the Excel interface is visible around the edges.


(2)



(4)



(6)



## Winlog.pro Professional software



- Enables real-time monitoring with wireless data loggers
- Formula editor for calculating the F0-value of the absolute humidity, the PE value etc.
- Display of the timeline either absolute or relative
- Customized definition of individual areas possible (with their own statistics and calculations)
- Including calibration tool for data loggers
- Integration of pictures and graphics into reports possible
- IQ/OQ documentation optional



### System Requirements

So that the software can run on your computer with any problem, your computer must meet the following requirements:

#### Hardware Requirements:

- At least 1 GHz processor speed
- At least 1 GB working memory
- At least 1 GB free hard disc space
- USB (Universal Serial Bus)

#### Software requirements:

- Operating system Microsoft®
- Windows Vista (32 Bit and 64 Bit)
- Windows 7 (32 Bit and 64 Bit)
- Windows 8 (32 Bit and 64 Bit)
- Windows 10 (32 Bit and 64 Bit)

Type	Description	Part No.
Winlog.pro	Professional evaluation software	1340-2355
IQ/OQ Winlog.pro	Installation and Operation Qualifications for Winlog.pro	1340-2286

# Evaluation Software for EBI 25 Data Loggers

## Winlog.web

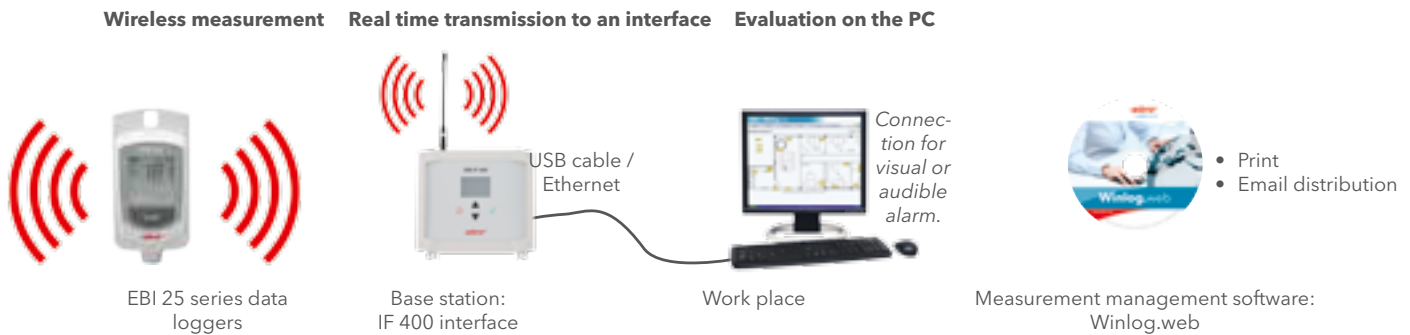
For programming and readout of EBI 25 data loggers as well as for evaluating the measurement values. The software automatically collects and evaluates data and alerts if necessary.

## 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.

As soon as a temperature, humidity or any other measurement has exceeded a user defined limit, an alarm is immediately sent via email.

Please find the EBI 25 Data Logger Family starting on page 62.



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





## 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

For users of the software Winlog.web ebro has designed an App called



- free of charge - to monitor the performance via smartphone.

### System Requirements

To enable the software to operate smoothly, your computer must meet the following requirements:

#### Hardware requirements:

- Processor speed minimum 2 GHz
- Working memory 4 GB
- 20 GB free hard disc space
- USB (Universal Serial Bus)

#### Software requirements:

- Operating System Microsoft®
- Windows Vista (32 Bit and 64 Bit)
  - Windows 7 (32 Bit and 64 Bit)
  - Windows 8 (32 Bit and 64 Bit)
  - Windows 10 (32 Bit and 64 Bit)

#### Further requirements:

- Mozilla Firefox 3.0
- Microsoft Internet Explorer 10



Type	Description	Part No.
Winlog.web	Evaluation software (web-based server version)	1340-2390
IQ/OQ Winlog.web	Installation Qualification and Operation Qualification for Winlog.web	1340-2290

# Evaluation Software for Pharmaceutical and Medical Applications

## Winlog.med and Winlog.validation

The Winlog.med and Winlog.validation software versions is suitable for programming and readout of ebro data loggers as well as for evaluating the measurement values. The software guides you step by step through the validation or routine control process and evaluates the measurement automatically.

## Flexible Report Generation

Whether you need a short process report or a table report with all measurement data - ebro's Winlog software makes it easy.

Table report

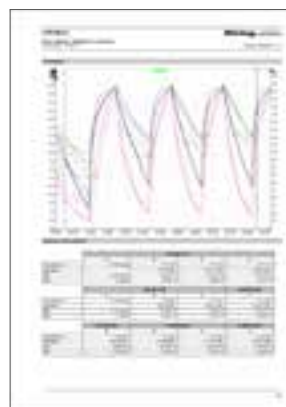
Detailed result overview

Process parameters, e.g. theoretical steam temperature calculation

Lethality report

Equipment used

Graphical data



Statistical data





## Winlog.med For routine controls



- TÜV certified
- User-friendly
- High precision measurements
- Automatic report generation
- Automatic user-defined calculations
- Automatic identification of process cycles
- Creation of user-defined masters for specific devices and thermal processes
- Three-dimensional demonstration of sensor placement or placement of the sensors directly on an application image possible
- FDA 21 CFR Part 11

## Winlog.validation For routine control and validation



Powerful report and evaluation software fitting the requirements of validation and qualification in Pharmaceuticals and Medicine.

- TÜV Industrial Services certified
- User-friendly
- High precision measurements
- Automatic report generation
- Automatic user-defined calculations
- Automatic identification of process cycles
- Creation of user-defined masters for specific devices and thermal processes
- Three-dimensional demonstration of sensor placement or placement of the sensors directly on an application image possible
- FDA 21 CFR Part 11
- IQ / OQ available
- Automatic evaluation of validation processes

### System Requirements

To enable the software to operate smoothly, your computer must meet the following requirements:

#### Hardware requirements:

- Processor speed minimum 1 GHz
- Working memory 1 GB
- 1 GB free hard disc space
- USB (Universal Serial Bus)

#### Software requirements:

- Operating System Microsoft®
- Windows Vista (32 Bit und 64 Bit)
  - Windows 7 (32 Bit und 64 Bit)
  - Windows 8 (32 Bit und 64 Bit)
  - Windows 10 (32 Bit und 64 Bit)



Type	Description	Part No.
Winlog.med	Standard evaluation software for routine controls	1340-2363
Winlog.validation	Professional evaluation software for routine controls and validations	1340-2394
IQ/OQ Winlog.validation	Installation Qualification and Operation Qualification for Winlog.validation	1340-2287



# Calibration

Precision measurement and testing equipment such as thermometers and data loggers should be checked and calibrated regularly.

## Factory Calibration

Most ebro measuring equipment is supplied with a factory calibration certificate. The functionality and the tolerances indicated in the technical specifications are thus ensured. Factory calibration is completed with DAkkS-calibrated factory normal.

- Calibration completed using special equipment.
- All factory certificates issued by trained personnel.
- The factory calibration certificate confirms the suitability of the device for official calibration.



## Calibration according to ISO 9000

Modern quality assurance systems like ISO 9000, QS 9000, GxP and FDA require testing and measuring equipment checks, which also include a regular calibration of these devices. ebro ISO calibration is an economical, fast and precise option for the fulfillment of these requirements.

- Calibration is done by calibration experts in a special laboratory.
- The results are documented in detail, including traceability information of the reference devices, in a so-called ISO certificate.
- Manufacturer-independent calibration, devices from other manufacturers can be calibrated.
- Calibration also includes device adjustment, if necessary (only for ebro devices).

We recommend that calibration be completed once per year for thermometers and pressure meters and once every 6 months for humidity meters. We will be happy to include you in our free ebro calibration reminder service.

The price for the calibration according to ISO 9000 includes certificate and **2 specified standard calibration points**. Freely selectable calibration points between -85 °C and +250 °C (-121 °F ... +482 °F) are available for a small fee.

The calibration of temperature / humidity loggers includes 2 to 3 humidity calibration points in the price. In addition a temperature calibration in the range of -40 °C ... +75 °C (-40 °F ... 167 °F) can be completed. Incoming and outgoing calibrations can be done on demand.

## ISO Calibrations



Type	Description	Part No.
EBI 12 - Family with 1 temperature channel	ISO Calibration	1020-3570
EBI 12 - Family with 2 temperature channels	ISO Calibration	1020-3571
EBI 12 - Family with 4 temperature channels	ISO Calibration	1020-3572
EBI 12 - Family with 1 pressure and 1 temp. channel	ISO Calibration	1020-3573
EBI 12 - Family with 1 pressure and 2 temp. channels	ISO Calibration	1020-3574
EBI 12 - Family with 1 pressure and 3 temp. channels	ISO Calibration	1020-3575
EBI 12 - Family with 1 humidity and 1 temp. channels	ISO Calibration	1020-3579
EBI 12 - Highly accurate pressure logger	ISO Calibration	1020-3578
EBI 12 - Temperature conductivity logger	ISO Calibration	1020-3577
PHT 830 / CT 830	ISO Calibration	1020-3530
EBI 40 with 6 temperature channels	ISO Calibration <sup>1)</sup>	1020-3540
EBI 40 with 12 temperature channels	ISO Calibration <sup>1)</sup>	1020-3541
EBI 11 - Family with 1 temperature channel	ISO Calibration	1020-3550
EBI 11 - Family with 1 pressure and 1 temp. channel	ISO Calibration	1020-3560
EBI 25 - Family with 1 temperature channel	3 Calibration points	1020-3580
EBI 25 - Family with 1 temperature channel	2 Calibration points	1020-3581
EBI 25 - Family with 1 humidity and 1 temp. channel	2x2 Calibration points	1020-3582
EBI 310 - With 1 temperature channel	ISO Calibration <sup>1)</sup>	1020-3585
EBI 310 TE, EBI 310 DI - With 2 temperature channels	ISO Calibration <sup>1)</sup>	1020-3586
EBI 310 TX - With 3 temperature channels	ISO Calibration <sup>1)</sup>	1020-3587
EBI 310 TH	ISO Calibration <sup>1)</sup>	1020-3588
TFX 430	ISO Calibration <sup>1)</sup>	1020-3593
Additional calibration point	ISO Calibration	1020-3599
ISO calibrations of other devices on request.		

- Certified according to DIN EN ISO 9001 : 2008

<sup>1)</sup> According to DIN ISO 9000 including certificate.

## DAkKS Calibration

DAkKS calibration is often needed for working standard measuring equipment, measuring equipment used by certified experts and for certain measurement procedures in medicine and pharmaceuticals – in other words, everywhere where an especially high degree of safety is required. This calibration is done by special DAkKS accredited laboratories that are monitored by the Physikalisch-Technische Bundesanstalt (PTB).

- Internationally recognized and comparable measurement results.
- DAkKS calibration is done by specially DAkKS authorized persons only.
- Traceable calibration in accordance with DIN EN ISO 9001 and DIN EN ISO/IEC 17025.
- Identification and documentation of the measurement uncertainty.
- Manufacturer-independent calibration, devices from other manufacturers can be calibrated.

We recommend that calibration is completed once per year for thermometers and once every 6 months for pressure and humidity meters. We will be happy to include you in our ebro calibration reminder service free of charge.

The price for the DAkKS calibration includes certificate includes **3 freely selectable calibration points** in the range of -85 °C ... +300 °C (-121 °F ... +572 °F) or 10% ... 95% for humidity calibration.

With a pressure DAkKS calibration, the device is calibrated at 9 points. The calibration points cover the entire measuring range. Calibration takes place at room temperature, ie between +20 °C and +25 °C. Additional calibration points are available for a small fee.

## DAkKS Calibrations



Type	Description	Part No.
EBI 12 - Family with 1 temperature channel	DAkKS Calibration <sup>2)</sup>	1020-3670
EBI 12 - Family with 2 temperature channels	DAkKS Calibration <sup>2)</sup>	1020-3671
EBI 12 - Family with 4 temperature channels	DAkKS Calibration <sup>2)</sup>	1020-3672
EBI 12 - Family with 1 pressure and 1 temp. channel	DAkKS Calibration <sup>2)</sup>	1020-3673
EBI 12 - Family with 1 pressure and 2 temp. Channels	DAkKS Calibration <sup>2)</sup>	1020-3674
EBI 12 - Family with 1 pressure and 3 temp. Channels	DAkKS Calibration <sup>2)</sup>	1020-3675
EBI 12 - Family with 1 humidity and 1 temp. Channels	DAkKS Calibration <sup>2)</sup>	1020-3679
EBI 12 - Highly accurate pressure logger	DAkKS Calibration <sup>2)</sup>	1020-3678
EBI 40 with 6 temperature channels	DAkKS Calibration <sup>2)</sup>	1020-3640
EBI 40 with 12 temperature channels	DAkKS Calibration <sup>2)</sup>	1020-3641
EBI 11 - Family with 1 temperature channel	DAkKS Calibration <sup>2)</sup>	1020-3650
EBI 11 - Family with 1 pressure and 1 temp. channel	DAkKS Calibration <sup>2)</sup>	1020-3660
EBI 25 - Family with 1 temperature channel	DAkKS Calibration <sup>2)</sup>	1020-3680
EBI 25 - Family with 1 humidity and 1 temp. channel	DAkKS Calibration <sup>2)</sup>	1020-3682
EBI 310 - With 1 temperature channel	DAkKS Calibration <sup>2)</sup>	1020-3685
EBI 310 TE, EBI 310 DI - With 2 temperature channels	DAkKS Calibration <sup>2)</sup>	1020-3686
EBI 310 TX - With 3 temperature channels	DAkKS Calibration <sup>2)</sup>	1020-3687
EBI 310 TH	DAkKS Calibration <sup>2)</sup>	1020-3688
TFX 430	DAkKS Calibration <sup>2)</sup>	1020-3693
Additional calibration point	DAkKS Calibration <sup>2)</sup>	1020-3699
DAkKS calibrations of other devices on request.		

<sup>2)</sup> According to DAkKS (Traceability to German Standard) including certificate.

## Calibration conditions for different calibrations

### Temperature Calibrations

Calibration type	Calibration object	Measurement range	Measurement conditions
ISO	Temperature measurement devices with air and submersible sensors, Temperature data logger	> -85 °C ... +250 °C (-121 °F ... 482 °F) > +250 °C ... +1,000 °C (+482 °F ... +1,832 °F)	Temperature-regulated Liquid baths, Calibration source
DAkkS / DKD	Temperature measurement devices resistance thermometers, electronic thermometers and data loggers	0 °C (+32 °F) 0.01 °C (32.018 °F) -85 °C ... -35 °C (-121 °F ... -31 °F) -35 °C ... +250 °C (-31 °F ... +482 °F) +250 °C ... +300 °C (+482 °F ... +572 °F) > +300 °C ... +1,100 °C (>572 °F ... 2,012 °F)	Ice point Water triple point Liquid bath Liquid bath Liquid bath Tube furnace
	Thermocouple	-85 °C ... +200 °C > +200 °C ... +300 °C	Liquid bath Liquid bath

### Humidity Calibrations

Calibration type	Calibration object	Measurement range	Measurement conditions
ISO	Measurement devices for relative humidity	10 % ... 30 % 30 % ... 60 % 60 % ... 95 % Temperature range: +5 °C ... +70 °C (+41 °F ... +158 °F)	Two pressure humidity generator Temperature range: +5 °C to +70 °C (+41 °F to +158 °F)
DAkkS / DKD	Measurement devices for relative humidity	10 % ... 30 % 30 % ... 60 % 60 % ... 95 % Temperature range: +5 °C ... +70 °C (+41 °F ... +158 °F)	Two pressure humidity generator Temperature range: +5 °C to +70 °C (+41 °F to +158 °F)

### Pressure Calibrations

Calibration type	Calibration object	Measurement range	Measurement conditions
ISO	Absolute pressure	0 mbar ... 10,000 mbar	Pressure calibrator
DAkkS / DKD	Absolute pressure	0 mbar ... 5,000 mbar >5,000 mbar ... 25,000 mbar	In gases In gases

### ISO Standard Calibration Points for ebro Products

Measurement device	Calibration points		
EBI 310	-20 °C	0 °C	+60 °C
EBI 310 TH	32,8% at +25 °C 0 °C	+20 °C	75,4% at +25 °C
EBI 12 T (depends on device type)	0 °C	+60 °C	+134 °C
EBI 12 TP (depends on device type)	100 mbar at +25 °C 0 °C	3,100 mbar at +25 °C +60 °C	3,100 mbar at +134 °C +134 °C
EBI 25 (depends on device type)	-20 °C	0 °C	

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