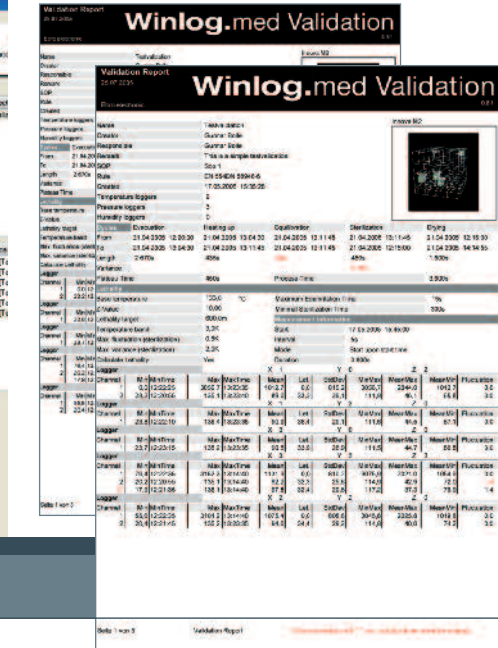
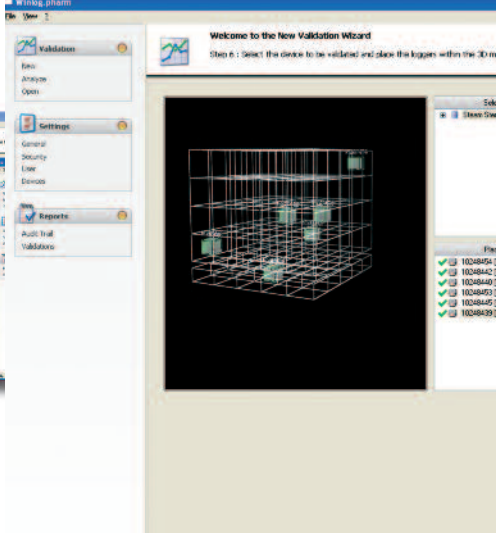


Only 3 Easy steps ...**ebro** validation systems

**Setup
1**

**Evaluate
2**

**Report
3**



Quick and easy validation

ebro Winlog validations system is a combination of high accuracy Datalogger technology and powerful programming and reporting tools

The system consists of:

EBI series Data Loggers:

Datalogger to measure and record process conditions (temperature, rH, pressure, time)

Measuring systems:

TÜV validation, FDA 21 CFR Part 11 conform
Allows evaluation according to international standards (EN 285, ISO 17665, ISO 15883, IQ, OQ Dokumentation)

Winlog.med Validation

Easy-to-use software for programming, evaluation, calibration and report generation.

WE have the solutions to meet YOUR validation and measurement requirements!

Use ebro systems to validate:

Steam sterilizers / Washer Disinfector / Dry heat ovens / Warehouses / Freezers / Freeze dryers / Climate cabinets / Cold rooms and freezers / Incubators / Shipping studies ...

ebro Validation Sets SL 2000 and SL 2110 for Temperature and Pressure Monitoring

ebro® Validation-Set SL 2000 for Temperature and Pressure Monitoring

Validation of washer disinfectors

Set contains:

- 1 x Pressure/Temperature Data Logger EBI 10-TP231
- 3 x Temperature Logger EBI 10-T441
- 1 x Interface
- 1 x Antenna AL 112
- 1 x Antenna lead-through
- 1 x pH-Tester PHX 800
- 1 x Conductivity tester DIST 3
- 1 x Software Winlog.med Validation
- 1 x Carrying case



ebro® Validation-Set SL 2110 for Temperature and Pressure Monitoring

Validation of washer-disinfectors and steam sterilizers

Set contains:

- 1x Temperature Logger EBI 10-T220
- 4 x Temperature Logger EBI 10-T441
- 1 x Silicone protection box AL 101
- 5 x Silicone protection box AL 100
- 1 x Interface IF 200
- 1 x Antenna AL 150
- 1 x Antenna lead-through AL 151
- 1 x pH-Tester PHX 800
- 1 x Conductivity tester DIST 3
- 1 x Software Winlog.med Validation
- 1 x Carrying case





MEASUREMENTS FOR LIFE

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Medical

Data Logger for Validation



Software for **Validation**

... your advantages at a glance

Winlog.med Validation
Software for Validation



Winlog.med Validation

**Validation of washer-disinfectors
and steam sterilizers**

Winlog.med Validation

An evaluation software for data loggers, specifically designed for validation of washer-disinfectors and steam sterilizers in central sterilization departments. Most process flows during daily routine checks and annual validation are handled automatically.

Your advantages:

- > **FDA 21 CFR Part 11 – conform**
- > **Very user friendly**
- > **Tamper-proof software**
- > **Detects and checks all relevant stages (cleaning, disinfection and sterilization process)**
- > **Automatic determination of all relevant parameter (e. g. A0-value, F0-value)**
- > **Professional process evaluation with an unambiguous result (passed / failed)**
- > **Display and print out of all temperature and pressure curves**
- > **Free report choice**
- > **Validated by TÜV Munich**

System requirements

For the software to operate smoothly on your computer, your computer must meet the following requirements:

Processor speed (CPU) with at least 1 GHz

1 GB working storage

5 GB free hard disc storage

USB (Universal Serial Bus)

Microsoft Windows 2000, XP, Windows 7 or Vista (32 Bit)

Description	Type	Part No.
Starter-Kit for Validation	SL 2000	1340-6072
Profi-Kit for Validation	SL 2110	1340-6073
Evaluation Software (validation version)	Winlog.med Validation	1340-2365

EBI 10-T220/T221



EBI 10-T240/T241



EBI 10-T441



EBI 10-TP231



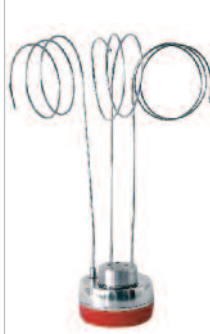
EBI 10-TP221



EBI 10-TP321



EBI 10-TP421



Temperature Logger
1 canal, external, radial

Temperature Logger
1 canal, external, axial

Temperature Logger
2 canal, external, axial

Temperature-/ Pressure Logger
2 canal (1x Temperature, 1x Pressure)

Temperature-/ Pressure Logger
2 canal (1x Temperature, 1x Pressure)

Temperature-/ Pressure Logger
3 canal (2x Temperature, 1x Pressure)

Temperature-/ Pressure Logger
4 canal (3x Temperature, 1x Pressure)

The Datalogger EBI 10-T220/221 is a Temperature Logger with a radial sensor. He's available with two probe length: 250 mm and 500 mm.

For Validation of washer-disinfectors. The bendable probe which is available in two length, simplifies the measuring.

The Datalogger EBI 10-T441 with two Pt1000 Temperature Sensor and a probe length of 500 mm, is qualified for Validation of steam sterilizers.

The Temperature and Pressure Logger EBI 10-TP231 can be deployed for the Validation of washer disinfectors. He has a Pt1000 Temperature sensor and a piezo-resistive Pressure sensor.

The fixed axial Pt1000 Temperature sensor, as well as a Pressure sensor, allows wireless measuring. The Logger is custom-built for Validation of Autoclaves an washer disinfectors.

In addition of two external Temperature sensors with a probe length of 500 mm per probe, the EBI 10-TP321 duties a pressure sensor. Bendable probes, simplifies the measuring.

For wireless Temperature- and Pressure measuring. Through 3 external Temperature sensors and 1 Pressure sensor, the EBI 10-TP421 is qualified for validation of washer-disinfectors.

Measuring range
-85°C ... +400°C*

Measuring range
-85°C ... +400°C

Measuring range
-85°C ... +400°C

Measuring range
0°C ... +150°C*
1 mbar ... 4000 mbar

Measuring range
0°C ... +150°C*
1 mbar ... 4000 mbar

Measuring range
0°C ... +150°C*
1 mbar ... 4000 mbar

Measuring range
0°C ... +150°C*
1 mbar ... 4000 mbar

Accuracy
±0,5°C (-85°C ... 40°C)
±0,2°C (-40°C ... 0°C)
±0,1°C (0°C ... +140°C)
±0,2°C (+140°C ... +250°C)
±0,5°C (+250°C ... +400°C)

Accuracy
±0,5°C (-85°C ... -40°C)
±0,2°C (-40°C ... 0°C)
±0,1°C (0°C ... +140°C)
±0,2°C (+140°C ... +250°C)
±0,5°C (+150°C ... +400°C)

Accuracy
±0,5°C (-85°C ... -40°C)
±0,2°C (-40°C ... 0°C)
±0,1°C (0°C ... +140°C)
±0,2°C (+140°C ... +250°C)
±0,5°C (+150°C ... +400°C)

Accuracy
±0,2°C (-40°C ... 0°C)
±0,1°C (0°C ... +140°C)
±0,2°C (+140°C ... +150°C) ±10 mbar

Accuracy
±0,2°C (+140°C ... +150°C)
±10 mbar

Accuracy
±0,2°C (+140°C ... +150°C)
±10 mbar

Accuracy
±0,2°C (+140°C ... +150°C)
±10 mbar

Sensor
1 temperature, external, radial
EBI 10-T220:
Ø 1,5 mm / L=250 mm
EBI 10-T221:
Ø 1,5 mm / L=500 mm
Pt1000

Sensor
1 temperature, external, axial
EBI 10-T240:
Ø1,5 mm / L = 250 mm
EBI 10-T241:
Ø1,5 mm / L = 500 mm
Pt1000

Sensor
2 temperature, external, axial
Ø 1,5 mm / L=500 mm
Pt1000

Sensor
1 temperature, external, axial
Ø 3 mm / L=40 mm
1 pressure
Pt1000

Sensor
1 temperature, external, axial
Ø 1,5 mm / L=500 mm
1 Pressure
Pt1000

Sensor
2 temperature, external, axial
Ø 1,5 mm / L=500 mm
1 Druck
Pt1000

Sensor
3 temperature, external, axial
Ø 1,5 mm / L=500 mm
1 Druck
Pt1000

Operating Pressure
Up to 20 bar

Operating Pressure
Up to 20 bar

Operating Pressure
Up to 20 bar

Operating Pressure
Up to 7 bar

Operating Pressure
Up to 7 bar

Operating Pressure
Up to 7 bar

Operating Pressure
Up to 7 bar

Type Part No.
EBI 10-T220 1340-6104
EBI 10-T221 1340-6105

Type Part No.
EBI 10-T240 1340-6111
EBI 10-T241 1340-6112

Type Part No.
EBI 10-T441 1340-6129

Type Part No.
EBI 10-TP231 1340-6155

Type Part No.
EBI 10-TP221 1340-6153

Type Part No.
EBI 10-TP321 1340-6161

Type Part No.
EBI 10-TP421 1340-6162

EBI 11-T240



EBI 11-TP100



AC 100



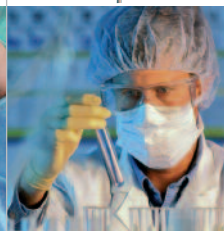
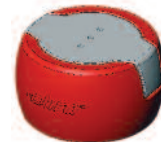
TFX 430



EBI IF 100



AL 100



Single interface for EBI 10

- (as well as for EBI 11)
- USB connection
 - Colored LED signals status (program, read out, error)
 - Includes additional external antenna for autoclave applications
 - Works with: Winlog.pro Winlog.med Winlog.med Validation Winlog.pharm

Silicone protection box for EBI 10 (temperature)

- Protects logger from heat spikes
- Protects logger from mechanical damage
- Enhances lifetime of logger

Mini Temperature Logger
1 canal, external, axial

Mini Temperature-Pressure Logger

Mobile calibration bath

Thermometer Pt 100

For Monitoring and Validation of dry heat ovens, washer-disinfectors in cramped spaces.
AO-value according ISO 15883-1.

Temperature and Pressure measurements in table-model steam sterilizers. For validation of steam sterilizers and washer-disinfectors

Mobile calibration on site

Calibration before and after validation

Process control
Reference measuring
Different probes available for different applications

Measuring range
0°C ... +150°C

Measuring range
0°C ... +150°C
1mbar ... 4000mbar

Measuring range
+50°C ... +200°C

Measuring range
-100°C ... +500°C

Accuracy
± 0,1°C

Accuracy
Temperature +/- 0,1°C
Pressure +/- 10mbar

Accuracy
±0,05°C

Accuracy
±0,05°C
(-100°C ... +200°C)
Remaining measuring range:
±0,2°C

Sensor
1 temperature, external, axial, Ø1,5 mm / L = 250 mm Pt1000

Sensor
Temperature: Pt1000
Piezo-resistive pressure sensor

Sensor

Sensor
Pt 100
1 Temperature, external Ø 3 mm
Piezo-resistive pressure sensor

Operating Pressure
Up to 7 bar

Operating Pressure
Up to 7 bar

Operating Pressure

Operating Pressure

Type Part No.
EBI 11-T240 1340-6291

Type Part No.
EBI 11-TP100 1340-6295

Type Part No.
AC 100 1340-6030

Type Part No.
TFX 430 1340-5430

EBI IF 200



4 port interface for EBI 10

- USB connection
- Colored LED signals status (program, read out, error)
- Includes additional external antenna for autoclave applications
- Works with: Winlog.pro Winlog.med Winlog.med Validation Winlog.pharm

AL 101



Silicone protection box for EBI 10 (Temperature and Pressure)

- Protects logger from heat spikes
- Protects logger from mechanical damage
- Enhances lifetime of logger

EBI TIB



Thermal-Insulation Box EBI TIB

- Must be used from +150°C to +400°C
- Thermal protection for data loggers
- For EBI 10 / EBI 100 R-Logger
- Stainless steel, 160 x 160 x 82 mm

Type Part No.
EBI IF 100 1340-6001
EBI IF 200 1340-6002
EBI TIB 1340-1894

Type Part No.
AL 100 1340-6020
AL 101 1340-6021