Validation and Routine Control Sets

**Complete Validation Sets**

**Description:**
- Validation data loggers with evaluation software and an extensive range of accessories
- German TÜV Industrial Services certified
- Software conforms with FDA 21 CFR Part 11

**Applications:**
- Validation of pasteurisation and sterilization processes
- Validation of steam sterilizers, washer-disinfectors and washer-disinfectors for endoscopes as well as DAC Univesal

**Complete Routine Control Sets**

**Description:**
- Data loggers for routine control with evaluation software and extensive range of accessories
- Software conforms with FDA 21 CFR Part 11

**Applications:**
- Routine control of steam sterilizers, washer-disinfectors and washer-disinfectors for endoscopes
- Performing the Electronic Bowie Dick Test
- Routine control of pasteurization and bottle cleaning processes
Complete Validation Sets

Flexible Data Logger System for Thermal Validations

ebro offers a flexible measurement and documentation system for validating many different thermal processes. This reliable system includes easy to use wireless data loggers of the EBI 10 series placed directly in the process and the software Winlog.validation to evaluate the processes.

The sets can individually be expanded or compiled yourself from one or more data loggers (EBI 10 or EBI 11), the appropriate interface and the software Winlog.validation. Talk to us!

Process Validation with Temperature and Pressure Data Loggers across many Applications in:

**Medical Sector**
- Washer-disinfectors
- Washer-disinfectors for endoscopes
- Bed pan washers
- Steam sterilizers
- Blood banks
- Medicine refrigerators
- Laboratories
- Freezers

**Pharmaceutical Industry**
- Steam sterilization
- Stability chambers
- Cold storage
- Validation of store houses
- Incubators
- Laboratories
- Freezers

**Food Industry**
- Retorts
- Pasteurization
- Spiral-cooker / cooler
- Transport facilities
- Freezers
- Refrigerators
- Smokehouse
- Ovens
- Full water autoclaves

**Benefits**
- Full automatic and tamper-proof
- Broad range of wireless data loggers for all applications
- Highly flexible temperature wire probes (individually replaceable sensors)
- High accuracy PT 1000 temperature sensors
- High accuracy of up to ±0.1°C
- German TÜV Industrial Services certified software, conforms with FDA 21 CFR Part 11
- 2-year warranty

**The System Conforms with the Following Standards**
- FDA 21 CFR Part 11
- ISO 15883
- ISO 17665
- EN 13060
- EN 12830
- DIN 58929
SL 1220 Complete Validation Set
for Washer-Disinfectors for Endoscopes

For the validation of thermal processes in washer-disinfectors for endoscopes according ISO 15883.

This reliable system consists of user-friendly mini data loggers and an Endoscope-Dummy that can be placed directly in the processes.

The set also contains an evaluation software package that has been validated by the TÜV.

The set contains:

- 3 x EBI 11-T235 Mini-Temperature Data Logger, Needle length = 25 mm
- EBI 11-P111 Mini Pressure Data Logger
- Sealing kit EBI 11-Valiset
- EBI IF 300, 4-port Interface
- Winlog.validation, evaluation software
- spypach Endoscope-Dummy "spo-pro" Professional
- Aluminum carrying case

Adequate pH and conductivity meters, see page 48.
### SL 2000 Complete Validation Set for washer-disinfectors

For the validation of washer-disinfectors according to ISO 15883.

The set can individually be expanded or compiled yourself from one or more data loggers (EBI 10 or EBI 11), the appropriate interface and the software Winlog.validation. Talk to us!

**The set contains:**

- 3 x EBI 10-T441 temperature data loggers
- EBI 10-TP231 temperature / pressure data logger
- EBI IF 200 4-port Interface with USB connection and antenna
- TÜV Industrial Services certified Winlog.validation software
- Aluminum carrying case

*Adequate pH and conductivity meters, see page 146.*

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Part No.</th>
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</thead>
<tbody>
<tr>
<td>SL 2000</td>
<td>Validation set for washer-disinfectors</td>
<td>1340-6072</td>
</tr>
</tbody>
</table>

### SL 3000 Complete Validation Set for small steam sterilizers

For the validation of small steam sterilizers according to ISO 17665.

The set can individually be expanded or compiled yourself from one or more data loggers (EBI 10 or EBI 11), the appropriate interface and the software Winlog.validation. Talk to us!

**The set contains:**

- EBI 10-TP453 temperature / pressure data logger with AL 101 silicone protection box
- EBI IF 200 4-port Interface with USB connection and antenna
- TÜV Industrial Services certified Winlog.validation software
- 6 x holding clamp for probes
- Aluminum carrying case

*Adequate pH and conductivity meters, see page 146.*

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Part No.</th>
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</thead>
<tbody>
<tr>
<td>SL 3000</td>
<td>Validation set for small steam sterilizers</td>
<td>1340-6079</td>
</tr>
</tbody>
</table>
SL 3100 Complete Validation Set for large steam sterilizers

For the validation of steam sterilizers according to ISO 17665 as well as for the validation of washer-disinfectors and washer-disinfectors for endoscopes according to ISO 15883.

The set can individually be expanded or compiled yourself from one or more data loggers (EBI 10 or EBI 11), the appropriate interface and the software Winlog.validation. Talk to us!

The set contains:

- 5 x EBI 10-T471 temperature data loggers with AL 107 silicone protection boxes
- EBI 10-TP453 temperature/pressure data logger with AL 101 silicone protection box
- EBI IF 200 4-port Interface with USB connection and antenna
- TÜV Industrial Services certified Winlog.validation software
- 12 x holding clamps for probes
- Aluminum carrying case

Adequate pH and conductivity meters, see page 146.
**SL 3300 Complete Validation Set**  
*for DAC Universal, benchtop autoclaves as well as washer disinfectors*

Very flexible data logger system to perform validations for various thermal processes in the DAC Universal and benchtop autoclaves according to ISO 17665/DIN 58929 as well as washer disinfectors according to ISO 15883.

This reliable system consists of user-friendly mini data loggers that can be placed directly in the processes and an evaluation software package that has been validated by the TÜV.

**The set contains:**
- 2 x EBI 11-T235 Mini Temperature Data Logger, Needle length = 25 mm
- 2 x EBI 11-T236 Mini Temperature Data Logger, Needle length = 80mm
- EBI 11-T237 Mini Temperature Data Logger, Needle length = 165mm
- EBI 11-P111 Mini Pressure Data Logger
- Sealing-kit for EBI 11
- EBI IF 300, 4-port Interface
- Winlog.validation, Software
- EBI-TAK-ALU, Aluminum carrying case

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**AL 3310 Complete Lid Set**  
*for Validation DAC Universal*

**The set contains:**
- 1 x Validation lid for use EBI 11 data logger
- 1 x Lid for test soil
- 1 x rinse adapter test soil

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**Adequate pH and conductivity meters, see page 146.**

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Part No.</th>
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</thead>
<tbody>
<tr>
<td>SL 3300</td>
<td>Validation set for DAC Universal, benchtop autoclaves as well as washer disinfectors</td>
<td>1340-6082</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Part No.</th>
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</thead>
<tbody>
<tr>
<td>AL 3310</td>
<td>Complete lid set for validation DAC Universal</td>
<td>1340-6051</td>
</tr>
</tbody>
</table>
Adequate pH- und Conductivity Meters for Validation Sets

Full description from Page 146.

**PHT 830**
- pH Meter with temperature compensation
- Configuration directly on device using 5 buttons and display
- Graphic LCD display with backlight
- Logging function
- Temperature compensated

**CT 830**
- Conductivity Meter with auto range
- Configuration directly on device using 5 buttons and display
- Graphic LCD display with backlight
- Logging function
- Temperature compensated

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHT 830 SET</td>
<td>pH-Meter with plastic electrode</td>
<td>1340-5812</td>
</tr>
<tr>
<td>CT 830 SET</td>
<td>Conductivity Meter with plastic electrode</td>
<td>1340-5835</td>
</tr>
</tbody>
</table>

### Accessories for PHT 830 and CT 830

**PHT 830**
- Electrode

**CT 830**
- Electrode

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<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Part No.</th>
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</thead>
<tbody>
<tr>
<td>AT 830 pH K Binder</td>
<td>Plastic electrode</td>
<td>1339-0661</td>
</tr>
<tr>
<td>AT 830 C Binder</td>
<td>Plastic electrode</td>
<td>1339-0660</td>
</tr>
<tr>
<td>EBI IF 830 Interfacecable for PHT 830 and CT 830</td>
<td>1340-6011</td>
<td></td>
</tr>
</tbody>
</table>
Data Logger Sets for Routine Control

• **EBI 11 Mini Data Logger Sets**
  for routine control of food processes.
  SL 1200: for washer-disinfectors for endoscope (see page 51)
  SL 4001: for temperature monitoring in cans (see page 53)
  SL 4101: for temperature monitoring in bottles (see page 54)

• **EBI 16 Bowie and Dick Test Sets**
  for performing the Electronic Bowie and Dick Test according to the norms EN 285 / ISO 17665.
  SL 1520: for steam sterilizers (see page 52)
  SL 1620: for steam sterilizers and washer-disinfectors (see page 52)

• **EBI 100 Precision Data Logger Sets**
  for routine control of food processes and of medical processes according to the German guideline.
  SL 1010: for bedpan washers (see page 49)
  SL 1110: for steam sterilizers and washer-disinfectors (see page 50)
  SL 4010: for temperature monitoring in tins (see page 54)
  SL 4110: for temperature monitoring in bottles and cans (see page 55)
  SL 4210: for temperature monitoring in different applications (see page 55)

The sets can individually be expanded or compiled yourself from one or more data loggers (EBI 11, EBI 16 or EBI 100), the appropriate interface and the corresponding software. Talk to us!

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**SL 1010 Temperature data logger set**
*for temperature monitoring and $A_0$ value calculation in bedpan washers*

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**The set contains:**

- EBI 100-T100 temperature data logger (see p. 28)
- Winlog.med Software
- EBI IF 150 Interface
- Aluminum carrying case
- pH & conductivity tester (see page 149)

Extend this set with an EBI 16 Data Logger (see page 25), and you will be able to perform Electronic Bowie and Dick Tests.

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SL 1010</td>
<td>EBI 100 data logger set for bed pan washers</td>
<td>1340-6570</td>
</tr>
</tbody>
</table>
SL 1110 **Temperature / pressure data logger set for temperature and pressure monitoring as well as for A₀ value calculation in steam sterilizers, washer-disinfectors and washer-disinfectors for endoscopes**

**The set contains:**

- EBI 100-TP231 pressure / temperature data logger with Luer-Lock connection (see page 31)
- AL 101 Silicone protection box for logger
- Winlog.med Software
- EBI IF 150 Interface
- Aluminum carrying case
- pH & conductivity tester (see page 149)

*Adequate pH and conductivity meters, see page 150.*

Extend this set with an EBI 16 Data Logger (see page 25), and you will be able to perform daily Electronic Bowie and Dick Tests.

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SL 1110</td>
<td>EBI 100 Data logger set for steam sterilizers and washer-disinfectors</td>
<td>1340-6571</td>
</tr>
</tbody>
</table>
SL 1200 Routine Control Set
for Washer-Disinfectors for Endoscopes

For the routine control of washer-disinfectors for endoscopes according ISO 15883.

This reliable system consists of user-friendly mini data loggers and an Endoscope-Dummy that can be placed directly in the processes.

The set also contains an evaluation software package.

The set contains:

- 1 x EBI 11-T235 Mini-Temperature Data Logger, Needle length = 25 mm
- EBI 11-P111 Mini Pressure Data Logger
- Sealing kit EBI 11-Valiset
- EBI IF 300, 4-port Interface
- Winlog.med, evaluation software
- spypach Endoscope-Dummy “spo-pro” Basic
- Aluminum carrying case

Adequate pH and conductivity meters, see page 48.
SL 1520 EBI 16 Bowie and Dick Test Set

For performing the Bowie and Dick Test according to the norms EN 285 and ISO 17665.

The set contains:
- Bowie Dick Test Logger EBI 16 (see page 25)
- Winlog.med software
- EBI IF 150 Interface
- Aluminum carrying case

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SL 1520</td>
<td>EBI 16 Bowie and Dick Test Set for steam sterilizers</td>
<td>1340-6198</td>
</tr>
</tbody>
</table>

SL 1620 EBI 16 Bowie and Dick Test Set

For performing the daily Bowie and Dick Test according to the norms EN 285 and ISO 17665 as well as for routine control.

The set contains:
- Bowie Dick Test EBI 16 (see page 25)
- EBI 100-TP231 temperature/pressure data logger (see p. 31)
- Winlog.med software
- EBI IF 150 interface
- Aluminum carrying case

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SL 1620</td>
<td>EBI 16 Bowie and Dick Test Set for steam sterilizers and washer-disinfectors</td>
<td>1340-6573</td>
</tr>
</tbody>
</table>
SL 4001 EBI 11 Mini Data Logger Set for Pasteurization and Sterilization

*for temperature monitoring in cans*

The set contains:

- EBI 11-T23x Mini temperature data logger:
  Needle length: 20 mm, 50 mm or 100 mm
  *(Special needle lengths on request)*
- AL 114 can adapter set
- EBI IF 100 interface
- Winlog.pro software
- Aluminum carrying case

Please name us the correct type of data logger in your order.

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Part No.</th>
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</thead>
<tbody>
<tr>
<td>Needle length = 20 mm</td>
<td>EBI 11-T230</td>
<td>SL 4001</td>
</tr>
<tr>
<td>Needle length = 50 mm</td>
<td>EBI 11-T231</td>
<td></td>
</tr>
<tr>
<td>Needle length = 100 mm</td>
<td>EBI 11-T233</td>
<td></td>
</tr>
</tbody>
</table>
SL 4010 EBI 100 Data Logger Set for Pasteurization and Sterilization for temperature monitoring in tins

The set contains:
- EBI 100-T230 Temperature Data Logger
- EBI DA-SET Can Adapter
- EBI IF 100-1 Interface
- Winlog.pro Software
- Aluminum carrying case

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<tr>
<th>Type</th>
<th>Description</th>
<th>Part No.</th>
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</thead>
<tbody>
<tr>
<td>SL 4010</td>
<td>EBI 100 Data logger set for pasteurization and sterilization</td>
<td>1340-6575</td>
</tr>
</tbody>
</table>

SL 4101 EBI 11 Mini Data Logger Set for Pasteurization for temperature monitoring in bottles

The set contains:
- EBI 11-T23x Mini temperature data logger:
  Needle length: 20 mm, 50 mm or 100 mm
  (Special needle lengths on request)
- AL 115 Bottle adapter set
- EBI IF 100 interface
- Winlog.pro software
- Aluminum carrying case

Please indicate the correct type of data logger in your order.

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SL 4101</td>
<td>EBI 11 Mini data logger set for pasteurization</td>
<td>1340-6093</td>
</tr>
</tbody>
</table>
**SL 4110 EBI 100 Data Logger Set for Pasteurization**

*for temperature monitoring in bottles and cans*

The set contains:
- EBI 100-T261 Temperature Data Logger
- EBI FL-S Bottle Adapter
- EBI DA Can Adapter
- EBI IF 100-1 Interface
- Winlog.pro Software
- Aluminum carrying case

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<th>Type</th>
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<th>Part No.</th>
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</thead>
<tbody>
<tr>
<td>SL 4110</td>
<td>EBI 100 Data logger set for pasteurization</td>
<td>1340-6576</td>
</tr>
</tbody>
</table>

**SL 4210 EBI 100 Basic Temperature Monitoring Set**

*Temperature monitoring system for different applications*

The set contains:
- EBI 100-T100 Temperature Data Logger
- EBI IF 100-1 Interface
- Winlog.pro Software
- Aluminum carrying case

<table>
<thead>
<tr>
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<th>Description</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SL 4210</td>
<td>EBI 100 Basic temperature monitoring set</td>
<td>1340-6577</td>
</tr>
</tbody>
</table>