

## EBI 11 Mini Data Loggers

### The Perfect Solution for Tight Spaces

For temperature and pressure measurements in tight spaces, ebro offers the EBI 11 mini data loggers. Many configurations are available to suit your application, including data loggers with internal sensors, rigid metal probes, bendable metal probes, Luer-Lock connection or threaded connection versions.

The EBI 11 Mini Data Loggers are suitable not only for validation monitoring but can also be used for routine control monitoring. Please find more information starting on page 30.

Applications:

- For tight spaces, e.g. in small steam sterilizers, bottles, cans or bags
- Validation of steam sterilizers and autoclaves
- Validation of washer-disinfectors and washer-disinfectors for endoscopes
- Validation at canning etc.
- Pressure measurement up to 10 bar





Bendable metal probe



Rigid metal probe



Integrated (pressure) sensor



Luer-Lock connection



M5 thread connection



Interface

Programming the Data Loggers



Measurement During the Process



Automatic Data Evaluation

**General technical specifications: valid for all EBI 11 logger types\***

Accuracy: Temperature	±0.1 °C
Resolution: Temperature	0.01 °C
Accuracy: Pressure (pressure data loggers only)	±15 mbar (0 mbar ... 4000 mbar) ±20 mbar (4000 mbar ... 10000 mbar)
Resolution: Pressure (pressure data loggers only)	1 mbar
Sensor: Temperature	Pt 1000
Sensor: Pressure (pressure data loggers only)	Piezo resistive pressure sensor (temperature compensated)
Sampling rate	1 sec to 24 hours., adjustable
Measurement mode	<ul style="list-style-type: none"> <li>• Endless measurement</li> <li>• Measurement start / stop time</li> <li>• Measure upon start time</li> <li>• Start immediately until end of memory</li> </ul>
Storage temperature	0 °C ... +60 °C (+32 °F ... +140 °F)
Battery	Lithium, 2 x BR1225 A, 3 V, user replaceable
Dimensions (Ø x h)	16.5 mm x 24 mm (without probe) <b>EBI 11-TP110:</b> 16.5 mm x 48 mm
Weight	Approximately 45 g
Housing material	V4A
Protection class	IP 68
Certificate	Factory calibration certificate

\* Please find the exact technical data of each EBI 11 logger type on the next pages.

## EBI 11-P100 Mini Pressure Data Logger

### Integrated sensor



- 1 internal pressure sensor, piezo resistive, temperature compensated

#### Technical Data

Measurement range: temperature	0 °C ... +150 °C (+32 °F ... +302 °F)
Measurement range: pressure	1 mbar to 10000 mbar
Data memory	2 x 7,500 measurement values
Operating temperature	0 °C ... +150 °C (+32 °F ... +302 °F)

Type	Description	Part No.
EBI 11-P100	Mini Pressure Data Logger, 1-channel	1340-6295

## EBI 11-P111 Mini Pressure Data Logger

### Luer-Lock connection



- 1 internal pressure sensor, piezo resistive, temperature compensated

#### Technical Data

Measurement range: temperature	0 °C ... +150 °C (+32 °F ... +302 °F)
Measurement range: pressure	1 mbar to 10000 mbar
Data memory	2 x 7,500 measurement values
Operating temperature	0 °C ... +150 °C (+32 °F ... +302 °F)

Type	Description	Part No.
EBI 11-P111	Mini Pressure Data Logger, 1-channel, Luerlock	1340-6296

## EBI 11-TP110 Mini Temperature / Pressure Data Logger

### M5 thread connection



- 1 internal temperature sensor
- 1 internal pressure sensor, piezo resistive, temperature compensated

#### Technical Data

Measurement range: temperature	0 °C ... +150 °C (+32 °F ... +302 °F)
Measurement range: pressure	1 mbar ... 10000 mbar
Data memory	2 x 7500 measurement values
Sensor: temperature	Pt 1000, internal
Sensor: pressure	Piezo-resistive, internal, temperature compensated
Operating temperature	0 °C ... +150 °C (32 °F ... +302 °F)

Type	Description	Part No.
EBI 11-TP110	Mini Temperature / Pressure Data Logger	1340-6297

## EBI 11-T23x Mini Temperature Data Logger Rigid metal probe



EBI 11-T230

- 1 external temperature sensor, axial, Pt 1000, Ø 3 mm

Please see page 24 for suitable bottle, can and bag adapters.

### Technical Data

Measurement range: temperature	-30 °C ... +150 °C (-22 °F ... +302 °F)
Data memory	15.000 measurement values
Operating temperature	-30 °C ... +150 °C (-22 °F ... +302 °F)

Type	Description	Part No.
EBI 11-T230	Mini Temperature Data Logger, 1-channel, ext., L = 20 mm	1340-6290
EBI 11-T231	Mini Temperature Data Logger, 1-channel, ext., L = 50 mm	1340-6292
EBI 11-T233	Mini Temperature Data Logger, 1-channel, ext., L = 100 mm	1340-6293

## EBI 11-T240 Mini Temperature Data Logger Bendable metal probe



- 1 external temperature sensor, axial, Pt 1000, bendable, Ø 1.5 mm

### Technical Data

Measurement range: temperature	-30 °C ... +150 °C (-22 °F ... +302 °F)
Data memory	15.000 measurement values
Operating temperature	-30 °C ... +150 °C (-22 °F ... +302 °F)

Type	Description	Part No.
EBI 11-T240	Mini Temperature Data Logger, 1-channel, ext., L = 250mm, flexible	1340-6291



## Accessories for EBI 11



**Set SI 1100**

for EBI 10, EBI 100 and EBI 11

- 2-port Interface IF 100
- Software Winlog.pro
- USB connection
- Colored LEDs signaling programming, readout and incorrect development
- With antenna



**Set SI 1110**

for EBI 100 and EBI 11

- 2-port Interface IF 100-1
- Software Winlog.pro
- USB connection
- Colored LEDs signaling programming, readout and incorrect development



**SI 1300 Set**

for EBI 11

- 4-port Interface IF 300
- Software Winlog.pro
- USB connection
- Colored LED signalling programming, readout and incorrect development



**Set SI 2100**

for EBI 10, EBI 100 and EBI 11

- 2-port Interface IF 100
- Software Winlog.med
- USB connection
- Colored LEDs signaling programming, readout and incorrect development
- With antenna



**SI 3300 Set**

for EBI 11

- 4-port Interface IF 300
- Software Winlog.validation
- USB connection
- Colored LED signalling programming, readout and incorrect development



**Battery change set AL 113**

for EBI 11

Suitable for 3 battery exchanges; contains 6 batteries, 3 O-rings with grease and changing tools.



**Bottle adapter set AL 115**  
for EBI 11-T230



**AL 114 can/bag adapter set**  
for EBI 11-T231 and EBI 11-T233

Type	Description	Part No.
SI 1100	Set: EBI IF 100 interface and Winlog.pro software	1340-6061
SI 1110	Set: EBI IF 100-1 interface and Winlog.pro software	1340-6561
SI 1300	Set: EBI IF 300 interface and Winlog.pro software	1340-6063
SI 2100	Set: EBI IF 100 interface and Winlog.med software	1340-6064
SI 3300	Set: EBI IF 300 interface and Winlog.validation software	1340-6069
AL 113	Battery changing set for EBI 11	1100-0120
AL 114	Can / bag adapter set for EBI 11-T231 and EBI 11-T233	1340-6298
AL 115	Bottle adapter set for EBI 11-T230	1340-6299