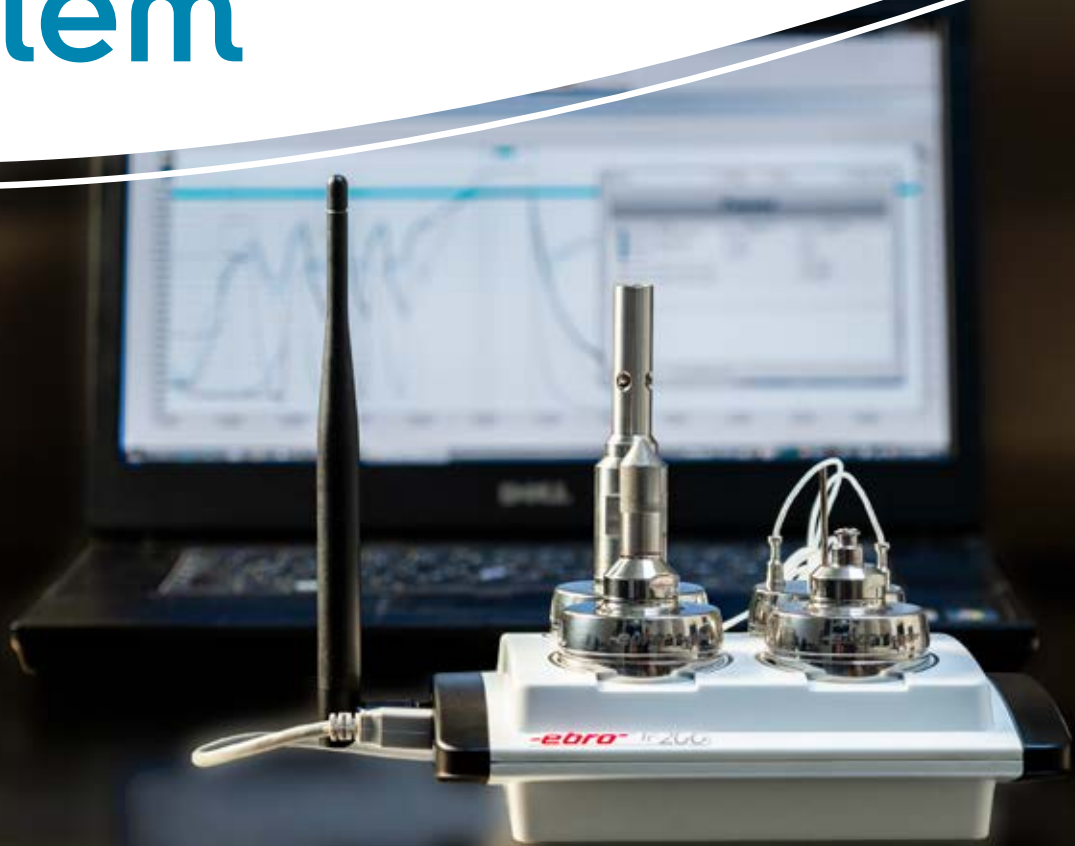


xylem



# Professional Data Logger

FOR VALIDATION, ROUTINE CONTROL AND PROCESS MONITORING

MEDICINE

FOOD

PHARMACEUTICAL

LABORATORY

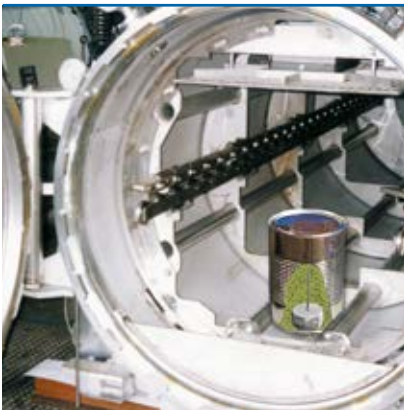
**-ebro-**  
a xylem brand

# Logger systems

and accessories for Process monitoring, Routine control and Validation



## Food



### Applications

- Autoclaves / Sterilizers / Pasteurization Processes
- Continuous Fryers
- Lyophilization
- Hydrostatic Retorts
- Refrigerators / Freezers / Cooling Rooms
- Smokehouse
- Cooker / Cooler (Reel and Spiral)



## Medical



- Steam Sterilization
- Washer disinfectors / bedpan washers
- H<sub>2</sub>O<sub>2</sub>-, LTSF- and EtO- Sterilization
- Depyrogenation / heat tunnel
- Incubators
- Refrigerators / Freezers / Cooling Rooms
- Stability Chambers



## Pharmaceutical



- Steam-, H<sub>2</sub>O<sub>2</sub> and EtO- Sterilization
- Washer disinfectors
- Depyrogenation / heat tunnel
- Lyophilization
- Incubators
- Refrigerators / Freezers / Cooling Rooms
- Climatic Test Chambers / Stability Chambers

## EBI 12-T43X Temperature Data Logger rigid metal probes



Application sample

- Ideal for use in canning for pasteurization control

### Technical Data

Measurement range	-55 °C ... +150 °C (-67 °F ... +302 °F)
Accuracy	± 0.5 °C (-55 °C ... -40 °C) ± 0.2 °C (-40 °C ... 0 °C) ± 0.1 °C (0 °C ... +150 °C)
Sampling rate	1 s ... 24 h
Data memory	2 x 13,920 measurement values
Factory calibration certificate	-20 °C, 0 °C, +60 °C and +134 °C

- Axial pointed, M5 Thread
- 2 external temperature probes, Ø 3 mm
- Various needle lengths available

Type	Description	Part No.
EBI 12-T430	Needle length = 50 mm	1340-6614
EBI 12-T431	Needle length = 75 mm	1340-6615
EBI 12-T432	Needle length = 100 mm	1340-6616
EBI 12-T433	Needle length = 150 mm	1340-6617

## EBI 12-T26X Temperature Data Logger for Pasteurization rigid metal probe



Application sample

- Temperature measurement in bottles during pasteurization

### Technical Data

Measurement range	-55 °C ... +140 °C (-67 °F ... 284 °F)
Accuracy	± 0.8 °C (-55 °C ... -40 °C) ± 0.3 °C (-40 °C ... +140 °C)
Sampling rate	1 s ... 24 h
Data memory	27.840 measurement values
Factory calibration certificate	-20 °C, 0 °C, +60 °C and +121 °C

- Axial, blunt, M10 thread
- 1 external temperature probe, Ø 6 mm
- Various needle lengths available

Type	Description	Part No.
EBI 12-T261	Needle length = 135 mm	1340-6618
EBI 12-T262	Needle length = 190 mm	1340-6619
EBI 12-T263	Needle length = 245 mm	1340-6620
EBI 12-T264	Needle length = 270 mm	1340-6621
EBI 12-T265	Needle length = 300 mm	1340-6622

## EBI 12-T46X Temperature Data Logger for Pasteurization rigid metal probe



### Application sample

- Ideal for use in bottles

### Technical Data

Measurement range	-55 °C ... +150 °C (-67 °F ... +302 °F)
Accuracy	± 0.5 °C (-55 °C ... -40 °C) ± 0.2 °C (-40 °C ... 0 °C) ± 0.1 °C (0 °C ... +150 °C)
Sampling rate	1 s ... 24 h
Data memory	2 x 13,920 measurement values
Factory calibration certificate	-20 °C, 0 °C, +60 °C and +121 °C

- Axial, blunt, M10 thread
- 1 external temperature probe, Ø 6 mm
- 1 external temperature probe, Ø 3 mm
- Various needle lengths available

Type	Description	Part No.
EBI 12-T461	Needle length = 135 mm	1340-6623
EBI 12-T462	Needle length = 190 mm	1340-6624
EBI 12-T463	Needle length = 245 mm	1340-6625
EBI 12-T464	Needle length = 270 mm	1340-6626
EBI 12-T465	Needle length = 300 mm	1340-6627

## EBI 12-T220 to T221 Temperature Data Logger bendable metal probe



II1G Ex ia IIC T4 Ga

### Application samples

- Measurement in the drain of sterilizers
- In oven (protected by Thermal Insulation Box see on Page 29)
- EtO sterilization (ATEX type)

### Technical Data

Measurement range	
EBI 12-T220:	-200 °C ... +200 °C (-328 °F ... +392 °F)
EBI 12-T220-EX: (Use in EX Area)	-40 °C ... +85 °C (-40 °F ... +185 °F)
EBI 12-T221:	-200 °C ... +400 °C (-328 °F ... +732 °F)
Data memory	100.320 measurement values
Factory calibration certificate	-20 °C, 0 °C, +60 °C, +134 °C (and +250 °C for EBI 12-T221)



- 1 external temperature probe, Ø 1.5 mm
- Radial arranged

Type	Description	Part No.
EBI 12-T220	L = 250 mm	1340-6604
EBI 12-T220-EX	L = 250 mm, EX type	1340-6604-EX
EBI 12-T221	L = 500 mm	1340-6605

## Accessories and Interface-Sets



### Battery replacement set AL 120 for EBI 12

Consisting of 3 batteries, 6 O-rings with grease and opening tool EBI 12

### Battery set AL 104 for EBI 12

Consisting of 3 batteries, 6 O-rings with grease



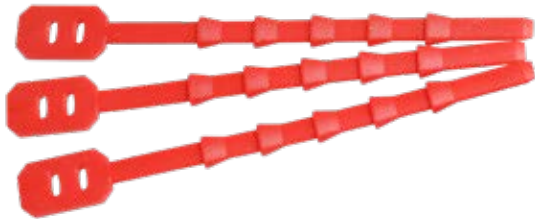
### AL 121 opening tool EBI 12

To open the data loggers e.g. for battery change



### AL 122 eyelet ring EBI 12

For securing the EBI 12 data loggers in process



### AL 190 Silicone cable strap

To hold the flexible cable probes of the EBI 12 data loggers



### Holding clamps probes

To hold the flexible cable probes of the EBI 12 data loggers.



## Silicone protection box

- Protects EBI 12 Data Loggers against heat peaks
- Protects EBI 12 Data Loggers against mechanical damage
- Extends the life of EBI 12 Data Loggers



### Silicone protection box AL 101

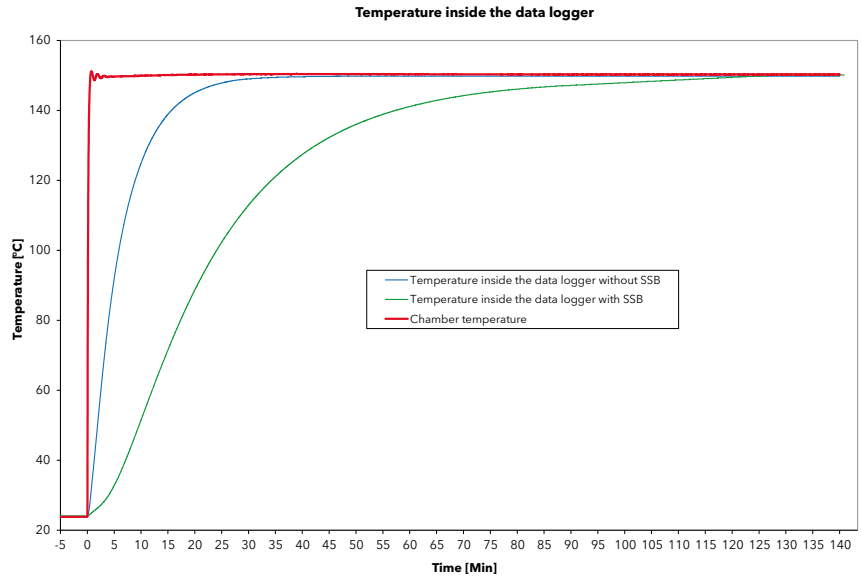
for e.g.  
EBI 12-TP222,  
EBI 12-TP322,  
EBI 12-TP422 and  
EBI 12-TP45x

Ø 78 mm,  
Height: 50 mm

### Silicone protection box AL 107

for e.g.  
EBI 12-T24x,  
EBI 12-T441,  
EBI 12-T67x und  
EBI 12-T471

Ø 78 mm,  
Height: 44 mm



## Thermal Insulation Boxes

- Usable from +150 °C ... +400 °C
- Thermal protection of data loggers
- Stainless steel

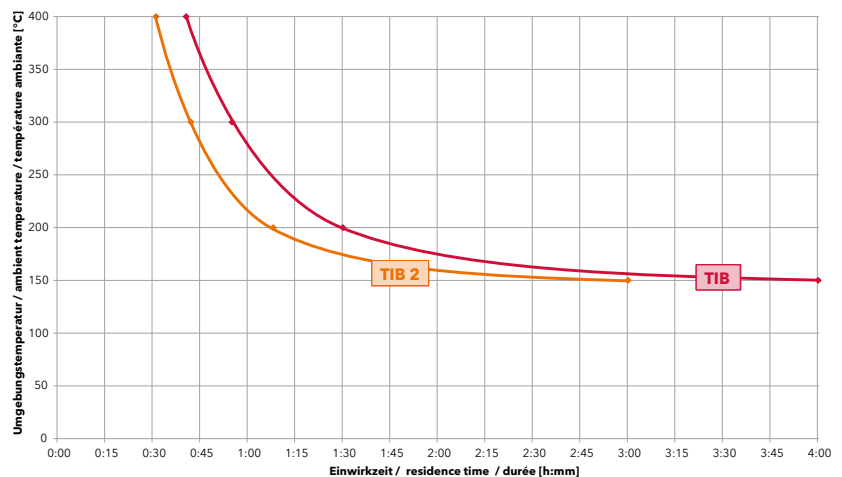


### Thermal insulation boxes EBI TIB and EBI TIB 2

for EBI 12-T221 and EBI 12-T421

- EBI TIB: 160 mm x 160 mm x 82 mm
- EBI TIB 2: 160 mm x 160 mm x 60 mm

### Grenzbedingung / limit condition / condition aux limites TIB / TIB 2







**Set SI 1100**  
for EBI 12 and EBI 11

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



**Set SI 1200**  
for EBI 12

- 4-port Interface IF 200
- Software Winlog.pro
- USB connection
- Colored LEDs signaling programming, readout and incorrect development
- Includes antenna



**Set SI 2100**  
for EBI 12 and EBI 11

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



**Set SI 2110**  
for EBI 12

- 4-port Interface IF 200
- Software Winlog.med
- USB connection
- Colored LEDs signaling programming, readout and incorrect development
- Includes antenna



**Set SI 2150**  
for EBI 12 and EBI 16

- 1-port Interface IF 150
- Software Winlog.med
- USB connection
- Colored LEDs signaling programming, readout and incorrect development



**Set SI 3200**  
for EBI 12

- 4-port Interface IF 200
- Software Winlog.validation
- USB connection
- Colored LEDs signaling programming, readout and incorrect development
- Includes antenna



**AL 112**  
for IF100 and IF 200

- Developed for real time monitoring
- AL 112 is a cable with 3 m length
- Antenna placement in the field of the door seal of a sterilizer or washer-disinfector
- Antenna steam-tight
- It is possible by a sealing to introduce it in the chamber



**Can adapter set**  
**EBI DA-Set**

With this adapter set you can fix the data loggers at cans or plastic bags. Designed for data loggers of the EBI 12 series with axial, radial or external probes. Hereby you assure the use to ensure proper probes placement.



**Can adapter EBI DA**  
for bottle loggers  
(see page 14)



**Bottle adapter EBI FL-S**  
silicone  
for bottle loggers  
(see page 14)



**Grommets for sensor fixing EBI NI-140**  
Allows precise mounting of the logger sensor in cans and glass.

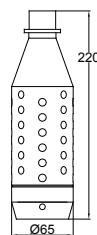


**Compression fitting EBI KV-3**  
Allows precise mounting of the logger sensor in glass (caps).

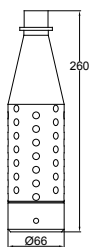
## Dummy bottle

Please find EBI 12-T23X Temperature data logger from page 12.

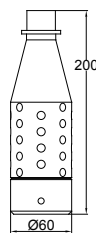
The dummy bottles can be screwed to the ground. This allows the EBI 12 to be positioned within the bottle.



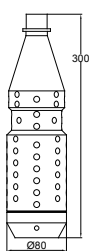
Dummy C



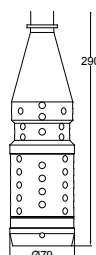
Dummy 0,5 l



Dummy E



Dummy 1 l



Dummy 0,7 l

Type	Description	Part No.
SI 1100	Set: Interface EBI IF 100 and Software Winlog.pro	1340-6061
SI 1200	Set: Interface EBI IF 200 and Software Winlog.pro	1340-6062
SI 2100	Set: Interface EBI IF 100 and Software Winlog.med	1340-6064
SI 2110	Set: Interface EBI IF 200 and Software Winlog.med	1340-6095
SI 2150	Set: Interface EBI IF 150 and Software Winlog.med	1340-6193
SI 3200	Set: Interface EBI IF 200 and Software Winlog.validation	1340-6068
AL 101	Silicone protection box for EBI 12 Pressure Data Logger	1340-6021
AL 120	Battery change set for EBI 12	1100-0130
AL 121	Battery change tool (2 parts) EBI 12	1100-0131
AL 122	Eyelet ring EBI 12	1100-0132
AL 104	Battery set for EBI 12	1100-0118
AL 107	Silicone protection box for EBI 12 Temperature Data Logger	1340-6024
AL 112	Antenna steam sterilizer	1340-6007
AL 190	Silicone cable strap set, consisting of 10 pcs.	1248-0190
AL 285	Logger-Check	1248-0285
Clamp	Holding clamps for probes	1340-0005
EBI TIB	Thermal Isolation box, 160 x 160 x 82 mm	1340-1894
EBI TIB 2	Thermal Isolation box, 160 x 160 x 60 mm	1340-1892
EBI DA	Can adapter for bottle loggers	1340-1963
EBI DA-Set	Can adapter set for bottle loggers	1340-1984
EBI FL-S	Bottle adapter, silicone	1340-1961
EBI NI-140	Grommets for sensor fixing up to 140 °C (100 pieces)	1340-1988
EBI KV-3	Compression fitting	1340-2005
Dummy C	Dummy Bottle POM 220x65mm	1340-2255
Dummy 0,5L	Dummy Bottle POM 0,5l	1340-2256
Dummy E	Dummy Bottle POM 200x60mm	1340-2257
Dummy 1L	Dummy Bottle POM 1l	1340-2258
Dummy 0,7L	Dummy Bottle POM 0,7l	1340-2259