ebro®

MEASUREMENTS FOR LIFE

Industry | Pharmacy | Chemistry | Medicine | Food

Precise & Robust - ebro® Data Loggers

Temperature / Humidity / Pressure / Voltage / Current

Fast, easy and safe:

…innovative measuring technology from ebro®

Temperature and Humidity Logger
EBI 20-T / EBI 20-TH

Reliable Temperature und Humidity Recording for Laboratory, Transport, Storage, Cooling Chambers & Freezers

- waterproof
- visual alarm
- current values shown on display
- replaceable battery
- excellent price/performance ratio

EBI 20-T and TH:

ebro® Starter-Set

Reliable temperature recording

The set contains:

1x logger EBI 20-T or EBI 20-TH

1x Winlog.basic evaluation software

1x EBI 20 interface

1x USB cable

Technical Data EBI 20-T and TH:	
Measuring range	-30°C ... +60°C (-22°F ... 140°F)
Humidity measuring range	0% ... 100% rH
Temperature accuracy	±0.5°C (-20°C ... +40°C) / ±0.9°F (-4°F ... 104°F) ±0.8°C (±1.4°F) for remaining measuring range
Humidity accuracy	±3%rH (10%rH ... 90%rH)
Memory	8.000 measured values
Measuring rate	1 min to 24 h
Battery life	At least 2 years (at 15min measuring rate @ 25°C / 77°F)
Protection class	IP 67 waterproof (EBI 20-T); IP 52 (EBI 20-TH)

FDA 21 CFR
Part 11 – compliant

Data Logger Family EBI 2 / 6 / 8

	EBI 20-T	EBI 20-TE	EBI 20-TH	EBI 20-DL	EBI 20-THP	EBI 2T
	Temperature Logger	Temperature Logger with external probe	Temperature Humidity Logger (Internal probe)	Temperature Logger with external probe	Data Logger for Temperature, Humidity and Pressure	Temperature Logger
	Temperature data logger monitors during transport and storage, in refrigerated display cases, refrigerating and cooling rooms	Temperature data logger with external probe monitors during transport and storage, in refrigerated display cases, refrigerating and cooling rooms	Temperature / humidity data logger monitors during transport and storage, in refrigerated display cases, cooling rooms, also suitable for computer rooms and for climate control	Temperature data logger with external probe, for use in dental surgeries	Monitors during transport and storage, also suitable for computer rooms and for room climate control	High accuracy temperature recording with Pt 1000 probes. Temperature surveillance in cooling rooms, cold stores, laboratories and chemical industry
Measuring range	-30°C ... +60°C (-22°F ... 140°F)	-30°C ... +60°C (-22°F ... 140°F)	-30°C ... +60°C (-22°F ... 140°F) 0% rH ... 100% rH	0°C ... +100°C (32°F ... 212°F)	-30°C ... +60°C (-22°F ... 140°F) 0% rH … 100% rH 700 mbar…1200 mbar	-40°C ... +75°C (-40°F ... 167°F) with external probe -50°C ... +400°C (-58°F ... 752°F)
Accuracy	±0.5°C (-20°C ... +40°C) ±0.9°F (-4°F ... 104°F) ±0.8°C (±1.4°F) for remain. measuring range	±0.5°C (-20°C ... +40°C) ±0.9°F (-4°F ... 104°F) ±0.8°C (±1.4°F) for remain. measuring range	±0.5°C (-20°C ... +40°C) ±0.9°F (-4°F ... 104°F) ±0.8°C (±1.4°F) for remain. measuring range / ±3% rH	±0.5°C (50°C...+100°C) ±0.9°F (122°F... 212°F) ±1°C (±1.5°F) for rest of measuring range	±0.5°C (±0.9°F) ±3 % rH ±5 mbar	±0.4°C (±0.7°F)
Resolution	0.1°C (0.2°F)	0.1°C (0.2°F)	0.1°C (0.2°F) 0.1% rH	0.1°C (0.1°F)	0.1°C (0.2°F) / 0.1% rH 1 mbar (0.0145 psi)	0.1°C (0.2°F)
Attributes	Excellent price / performance ratio, stores 8000 readings, no network connection required, protection class IP 67	Excellent price / performance ratio, external penetration probe for core temperature measurement, stores 8000 readings, protection class IP 67	Excellent price / performance ratio, stores 8000 readings, no network connection required	Excellent price / performance ratio, external penetration probe for environment temperature measurement, stores 8000 readings, protection class IP 67	Excellent price / performance ratio, stores 12.000 readings, no network connection required	High accuracy, different probes available, programming and evaluation with PC, current values shown on display, factory calibration certificate, protection class IP 54

EBI 2T-F	EBI 2-LKW	EBI 2-TH	EBI 2 PT	EBI 2 T-Type K (NiCrNi) -	EBI 2-U/I	EBI 6
Meat Logger	**Truck Logger**	**Temperature & Humidity Logger**	**Pressure Logger**	**NiCrNi-Logger**	**U/I-Logger**	**Temperature Logger**
Temperature surveillance in cold stores of butcheries	Logger for mobile temperature surveillance in trucks according to directive 92/1/EWG. With built-in printer	Surveillance of humidity-sensitive goods like foodstuffs, paper, pharmaceutical products. Also available with external sensors	Pressure recording with external pressure sensor in pipelines, laboratories and chemical industry	Logger for quick-measuring NiCrNi (K-type) temperature probes from -200°C ... 1200°C (-328°F ... 2192°F), for industrial use. Probes available for air, gases, surfaces, semi-solid materials and piping	Record standard voltage or current signals of transmitters and transformers in the food, chemical and pharmaceutical industry	Monitors temperature at: transport, storage, temperature chambers, cooling chambers

Evaluation software: Winlog.basic |
Measuring range -40°C ... +75°C (-40°F ... 167°F)	**Measuring range** -40°C ... +75°C (-40°F ... 167°F)	**Measuring range** -40°C ... +75°C (-40°F ... 167°F) 0% rH ... 100% rH	**Measuring range** -40°C ... +125°C (-40°F ... 257°F) Pressure: 0 to 5/10 bar (0 to 72/145 psi)	**Measuring range** -200°C ... +400°C and -200°C ... +1200°C (-328°F ... 752°F and -328°F ... 2192°F)	**Measuring range** Voltage: 0-1 / 0-5 / 0-10 Volt Current: 0-20 / 4-20 mA	**Measuring range** -30°C ... +50°C (-22°F ... +122°F)
Accuracy ±0.5°C (±0.9°F)	**Accuracy** ±0.3°C (±0.5°F)	**Accuracy** ±0.3°C (±0.5°F) ±2% rH (5% rH ... 95% rH)	**Accuracy** ±0.3°C (±0.5°F) Pressure: ±0.5% of measuring range	**Accuracy** ±0.5°C at 25°C (±0.9°F at 77°F) ambient temperature without probe	**Accuracy** ±0.1% of measuring range ±1 Digit	**Accuracy** ±0.8°C (±1.4°F)
Resolution 0.1°C (0.2°F)	**Resolution** 0.1°C (0.2°F)	**Resolution** 0.1°C (0.2°F) Humidity: 0.1% rH	**Resolution** 0.1°C (0.2°F) 1 mbar (0.02 psi)	**Resolution** 0.1°C / 1.0°C (0.2°F / 1.8°F)	**Resolution** 0.1%	**Resolution** 0.1°C (0.2°F)
Attributes High accuracy, no network connection required, programming and evaluation with PC, current values shown on display, factory calibration certificate, protection class IP 65	**Attributes** ATP approved, for any truck, programming and evaluation with PC, standard system requires no wiring, factory calibration certificate, monitor up to 4 measuring points in cargo area	**Attributes** High accuracy, available with internal sensor or with external probes, programming and evaluation with PC, current values shown on display, factory calibration certificate, protection class IP 30	**Attributes** Long sensor life due to acid-proof and base-proof ceramic sensor, high accuracy, compact and handy, factory calibration certificate, protection class IP 54	**Attributes** No network connection required, external probes available, battery life approx. 5 years, factory calibration certificate, easy to handle, protection class IP 40	**Attributes** 4 channel current / voltage, high accuracy, compact and handy, factory calibration certificate, protection class IP 40	**Attributes** Compact and handy, optical alarm, replaceable battery, good price / performance ratio, start / stop button, protection class IP 67, on request: · external probe

EBI 8-PCL

EBI 2-Bus-Series

Interface
EBI KSY-RS-232

for EBI-2-Loggers

Universal Interface

Universal Interface
EBI KSY-AE 2000
for readout of loggers
EBI 1 and EBI 2

Temperature Recording System

Temperature control in cooling chambers and sales areas

Evaluation software:
TEMPTIMON

Bus-Logger

Temperature control in storage areas and re-frigerators

Software

The Software EBI WINLOG 2000

available in 19 languages!

Allows graphic and numeric presentation of measured values.

A formula-editor facilitates calculation of measurands with respect to temperature, pressure, humidity, current and voltage.

ebro® Data Loggers / Readout-Systems / Software are a vali-dated System.

approved by TÜV, Munich

all ebro® data loggers
all ebro® interfaces
and ebro® WINLOG 2000
conform to
FDA 21 CFR Part 11

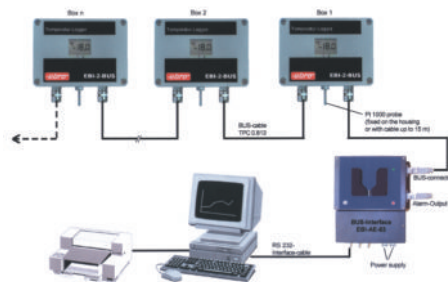| **Measuring range**	**Measuring range**
-40°C ... +70°C (-40°F ... 158°F)	-40°C ... +75°C (-40°F ... 160°F) (internal probe) -40°C ... +150°C (-40°F ... 300°F) (external probe)
Accuracy	
±0.8°C (±1.4°F)	
	Accuracy
	±0.3°C (±0.5°F)
Resolution	**Resolution**
0.1°C (0.2°F)	0.1°C (0.2°F)
Attributes	**Attributes**
Simple installation, max. cable length 120 m, up to 100 sensors can be connected, good price / performance ratio, protection class IP 30	Minimal administration (automatic functions), up to 63 measurement points are controlled, limit-value report, high accuracy, programming and analysis via PC, current metered value readable, factory calibration certificate

![ebro logo]

MEASUREMENTS FOR LIFE

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