

Temperature / Pressure Data Loggers EBI 12 series

General technical specifications: valid for all EBI 12-TP data loggers

| | |
|--|--|
| Operating temperature: pressure logger | 0 °C ... +150 °C (+32 °F ... +302 °F) |
| Accuracy: temperature | ±0.1 °C (0 °C ... +120 °C) ±0.05 °C (+120 °C ... +140 °C) ±0.1 °C (+140 °C ... +150 °C) |
| Accuracy: pressure | ±10 mbar (50 mbar ... 150 mbar) ±10 mbar (2,050 mbar ... 2,250 mbar) ±10 mbar (3,000 mbar ... 3,250 mbar) ±15 mbar (for the remaining measurement range) |
| Resolution: temperature | 0.01 °C |
| Resolution: pressure | 1 mbar |
| Data memory | Max. 100,000 measurements (total) |
| Sensor: temperature | Pt 1000, Class A |
| Sensor: pressure | Piezoresistive pressure sensor (temperature compensated) |
| Sampling rate | 250 ms ... 24 h |
| Measurement mode | <ul style="list-style-type: none"> • Endless measurement • Measure upon start time • Start immediately until end of memory • Start- / Stop measurement |
| Storage temperature | 0 °C ... +125 °C (+32 °F ... +257 °F) |
| Maximum operating pressure | Pressure logger: 7 bar (abs) |
| Minimum operating pressure | Logger with flexible cable probe: 20 mbar (abs) |
| Time accuracy (24h) | < 5 sec |
| Battery | Lithium cell, 3.6 V, user replaceable |
| Dimensions (Ø x H) | 48 mm x 32 mm* |
| Weight | Approximately 120 g * |
| Housing material | 316 L Stainless steel / PEEK |
| Protection class | IP 68 |
| Certificate | Factory calibration certificate |

* Dimensions and weight may be different depending on the type.



EBI 12-TP222 Temperature / Pressure Data Logger bendable metal probe and Luer-Lock-Connection



Application sample

- Washer disinfectors
- Sterilizer

Technical Data

| | |
|---------------------------------|--|
| Measurement range: temperature | 0 °C ... +150 °C (+32 °F ... +302 °F) |
| Measurement range: pressure | 1 ... 4,000 mbar |
| Data memory | 2 x 33,400 measurement values |
| Factory calibration certificate | 0 °C, +60 °C and +134 °C 100 mbar and 3100 mbar at +25 °C and 3100 mbar at +134 °C |

- 1 external temperature probe, axial, bendable, Ø 1.5 mm
- 1 internal pressure sensor with Luer-Lock-Connection

| Type | Description | Part No. |
|--------------|--|-----------|
| EBI 12-TP222 | Needle Length = 500 mm, Luer-Lock-Connection | 1340-6653 |

EBI 12-TP226 Temperature / Pressure Data Logger bendable metal probe



Application sample

- Washer disinfectors
- Sterilizer

Technical Data

| | |
|---------------------------------|--|
| Measurement range: temperature | 0 °C ... +150 °C (+32 °F ... +302 °F) |
| Measurement range: pressure | 1 ... 4,000 mbar |
| Data memory | 2 x 33,400 measurement values |
| Factory calibration certificate | 0 °C, +60 °C and +134 °C 100 mbar and 3100 mbar at +25 °C and 3100 mbar at +134 °C |

Approximately available from Q2 2019

- 1 external temperature probe, axial, bendable, Ø 1.5 mm
- 1 internal pressure sensor
- Small size

| Type | Description | Part No. |
|--------------|------------------------|-----------|
| EBI 12-TP226 | Needle Length = 250 mm | 1340-6657 |

EBI 12-TP231 Temperature / Pressure Data Logger rigid metal probe and Luer-Lock-Connection



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Application sample

- Washer disinfectors
- Sterilizer
- EtO sterilizer (ATEX type)

Technical Data

| | |
|--|--|
| Measurement range: temperature (Use in EX Area) | EBI 12-TP231: 0 °C ... +150 °C (+32 °F ... +302 °F) EBI 12-TP231-EX: 0 °C ... +85 °C (+32 °F ... +185 °F) |
| Measurement range: pressure | 1 ... 4,000 mbar |
| Data memory | 2 x 33,400 measurement values |
| Factory calibration certificate | 0 °C, +60 °C and +134 °C 100 mbar and 3100 mbar at +25 °C and 3100 mbar at +134 °C |

- 1 external temperature probe, axial, Ø 1.95 mm
- 1 internal pressure sensor with Luer-Lock-Connection

| Type | Description | Part No. |
|-----------------|-----------------------|--------------|
| EBI 12-TP231 | Needle Length = 40 mm | 1340-6655 |
| EBI 12-TP231-EX | Needle Length = 40 mm | 1340-6655-EX |



EBI 12-TP234 Temperature / Pressure Data Logger tube connection and M 10x1 internal thread



Application sample

- Drainages

Technical Data

| | |
|---------------------------------|--|
| Measurement range: temperature | 0 °C ... +150 °C (+32 °F ... +302 °F) |
| Measurement range: pressure | 1 ... 4,000 mbar |
| Data memory | 2 x 33,400 measurement values |
| Factory calibration certificate | 0 °C, +60 °C and +134 °C 100 mbar and 3100 mbar at +25 °C and 3100 mbar at +134 °C |

- 1 external temperature probe, axial, Ø 1.95 mm
- 1 internal pressure sensor with tube connection

| Type | Description | Part No. |
|--------------|-----------------------|-----------|
| EBI 12-TP234 | Needle Length = 40 mm | 1340-6652 |

EBI 12-TP322 Temperature / Pressure Data Logger bendable metal probes with Luer-Lock-Connection



Application sample

- Washer disinfectors
- Sterilizer

Technical Data

| | |
|---------------------------------|--|
| Measurement range: temperature | 0 °C ... +150 °C (+32 °F ... +302 °F) |
| Measurement range: pressure | 1 ... 4,000 mbar |
| Data memory | 3 x 25,000 measurement values |
| Factory calibration certificate | 0 °C, +60 °C and +134 °C 100 mbar and 3100 mbar at +25 °C and 3100 mbar at +134 °C |

- 2 external temperature probes, axial, bendable, Ø 1.5 mm
- 1 internal pressure sensor with Luer-Lock-Connection

| Type | Description | Part No. |
|--------------|----------------------|-----------|
| EBI 12-TP322 | Luer-Lock-Connection | 1340-6664 |

EBI 12-TP422 Temperature / Pressure Data Logger bendable metal probes with Luer-Lock-Connection



Application sample

- Washer disinfectors
- Sterilizer

Technical Data

| | |
|---------------------------------|--|
| Measurement range: temperature | 0 °C ... +150 °C (+32 °F ... +302 °F) |
| Measurement range: pressure | 1 ... 4,000 mbar |
| Data memory | 4 x 20,000 measurement values |
| Factory calibration certificate | 0 °C, +60 °C and +134 °C 100 mbar and 3100 mbar at +25 °C and 3100 mbar at +134 °C |

- 3 external temperature probes, axial, bendable, Ø 1.5 mm
- 1 internal pressure sensor with Luer-Lock-Connection

| Type | Description | Part No. |
|--------------|--|-----------|
| EBI 12-TP422 | Needle Length = 500 mm, Luer-Lock-Connection | 1340-6662 |

EBI 12-TP45X Temperature / Pressure Data Logger flexible cable probes with Luer-Lock-Connection



Application sample

- Sterilization

Technical Data

| | |
|---------------------------------|--|
| Measurement range: temperature | 0 °C ... +150 °C (+32 °F ... +302 °F) |
| Measurement range: pressure | 1 ... 4,000 mbar |
| Data memory | 4 x 20,000 measurement values |
| Factory calibration certificate | 0 °C, +60 °C and +134 °C 100 mbar and 3100 mbar at +25 °C and 3100 mbar at +134 °C |

- 3 external temperature probes, axial, flexible, Ø 1.2 mm
- 1 internal pressure sensor with Luer-Lock-Connection

| Type | Description | Part No. |
|--------------|---|-----------|
| EBI 12-TP451 | Cable Length = 600 mm, Luer-Lock-Connection | 1340-6643 |
| EBI 12-TP453 | Cable Length = 1,200 mm, Luer-Lock-Connection | 1340-6647 |

EBI 12-TP460 Temperature / Pressure Data Logger flexible cable probes



Application sample

- In limited spaces e.g. in containers

Technical Data

| | |
|---------------------------------|--|
| Measurement range: temperature | 0 °C ... +150 °C (+32 °F ... +302 °F) |
| Measurement range: pressure | 1 ... 4,000 mbar |
| Data memory | 4 x 20,000 measurement values |
| Factory calibration certificate | 0 °C, +60 °C and +134 °C 100 mbar and 3100 mbar at +25 °C and 3100 mbar at +134 °C |

- 3 external temperature probes, radial, Ø 1.2 mm
- 1 internal pressure sensor

| Type | Description | Part No. |
|--------------|-----------------------|-----------|
| EBI 12-TP460 | Cable Length = 600 mm | 1340-6648 |

EBI 12-TPX9X Precision Pressure Logger high precision pressure measurement down to 0.1 mbar



In the process of H₂O₂ Sterilizers a very precise pressure measurement is necessary. The system works with pressures down to 1 mbar abs. A Highly accurate pressure data logger is necessary caused by the very low pressure nearly by vacuum.



Not for use in steam sterilizer



Technical Data

| | |
|---------------------------------|--|
| Measurement range: temperature | 0 °C ... +85 °C (+32 °F ... +185 °F) |
| Measurement range: pressure | 0.1 ... 1,050 mbar (0.1 ... 788 Torr) |
| Accuracy: temperature | ±0.1 °C |
| Accuracy: pressure | ± 0.25 mbar (0.1 mbar ... 50 mbar) ± 5% of measured value (50 mbar ... 100 mbar) ± 1% FS (100 mbar ... 1,050 mbar) |
| Resolution: temperature | 0.01 °C |
| Resolution: pressure | 0.1 mbar |
| Data memory | TP190: 50,000 measurement values TP290: 2 x 33,400 measurement values |
| Sensor: temperature | Pt 1000 |
| Sensor: pressure | Piezoresistive pressure sensor |
| Measurement cycle | 250 ms ... 24 hours |
| Measurement mode | <ul style="list-style-type: none"> • Endless measurement immediately • Start / Stop measurement • Measure immediately until end of memory |
| Operating temperature | 0 °C ... +85 °C |
| Max. operating pressure | 2,000 mbar (abs.) |
| Battery | Lithium cell, 3.6 V, user replaceable |
| Dimensions (D x H) | 48 mm x 35 mm |
| Housing material | 316 L Stainless steel / PEEK |
| Protection class | IP 68 |
| Factory calibration certificate | 0 °C and +60 °C ≤0.5 mbar, 50 mbar at +25 °C and ≤0.5 mbar, 10 mbar, 50 mbar at +60 °C |

- 1 internal or 1 external temperature sensor, Ø 1.95 mm
- 1 internal pressure sensor

| Type | Description | Part No. |
|--------------|-----------------------|-----------|
| EBI 12-TP190 | Internal temp. sensor | 1340-6665 |
| EBI 12-TP290 | Needle Length = 40 mm | 1340-6666 |