Data Logger Sets

Complete Data Logger Sets for Process control and Monitoring, for Routine Control, Mapping and against Acceptable Quality Limit (AQL)

Description:

- Data Loggers with evaluation software and extensive equipment
- FDA 21 CFR Part 11 conform software

Applications:

- Process control, Monitoring and routine control in steam sterilizers, washer disinfectors, washer disinfectors for endoscopes as well as bedpan washers.
- Implementation of the electronic Bowie&Dick-Test.
- Process and routine control of pasteurization and bottle cleaning processes
- Process and routine control in cooking processes
- Process and routine control in other thermal processes in the food, pharma or medical sector

Advantages:

- Fully automatic and tamper-proof evaluation
- Individual evaluation by user-defined evaluations
- Wide range of wireless data loggers for different applications
- Highly flexible temperature cable probe
- High precision Pt 1000 temperature sensors
- High accuracy up to ±0,05 °C
- TÜV certified, FDA 21 CFR Part 11 conform software
- 2 years warranty

Complete Data Logger Sets for Operation and Process Qualification

Description:

- Data Loggers for validation with evaluation software and extensive equipment
- TÜV certified
- FDA 21 CFR Part 11 conform software

Applications:

- Operation and Process Qualification in pasteurization and bottle cleaning processes.
- Operation and Process Qualification in steam sterilizers, washer disinfectors, washer disinfectors for endoscopes as well as DAC-Universal
- Operation and Process Qualification in cooking processes
- Operation and Process Qualification in other thermal processes in the food, pharma or medical sector

Advantages:

- Fully automatic and tamper-proof evaluation
- Individual evaluation by user-defined evaluations
- Wide range of wireless data loggers for different applications
- Highly flexible temperature cable probe
- High precision Pt 1000 temperature sensors
- High accuracy up to ±0,05 °C
- TÜV certified, FDA 21 CFR Part 11 conform software
- 2 years warranty

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Data Logger Sets for process- and charge control, for routine control, mapping and Acceptable Quality Limit (AQL)

- **EBI 11 Mini Data Logger Sets**
  SL 1201: for washer-disinfectors for endoscope (*see page 45)*
  SL 400X: for temperature monitoring in cans (*see page 47*)
  SL 4102: for temperature monitoring in bottles (*see page 48*)

- **EBI 16 Bowie&Dick-Test Sets**
  according to EN 285 / ISO 17665
  SL 1521: for steam sterilizers (*see page 46*)
  SL 1621: for steam sterilizers and washer-disinfectors (*see page 46*)

- **EBI 12 Precision Data Logger Sets**
  For process and routine control of food and pharma processes as well as medical processes according to the German guideline.
  SL 1011: for bedpan washers (*see page 44*)
  SL 1111: for steam sterilizers and washer-disinfectors (*see page 45*)
  SL 401X: for temperature monitoring in tins (*see page 48*)
  SL 412X: for temperature monitoring in bottles and cans (*see page 49*)
  SL 4211: for temperature monitoring in different applications (*see page 49*)

The sets can individually be expanded or compiled yourself from one or more data loggers (EBI 11, EBI 16 or EBI 12), the appropriate interface and the corresponding software. Talk to us!

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SL 1011 Temperature Data Logger Set
For temperature monitoring and A_0 value calculation in bedpan washers

The set contains:

- 1 x EBI 12-T100 Temperature data logger (*see page 11*)
- Winlog.med Software
- EBI IF 150 Interface
- Carrying case „SYSTAINER"
- pH & conductivity tester (*see page 57*)

Type	Description	Part No.
SL 1011	EBI 12 data logger set for bedpan washers	1250-1011

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Data Logger Sets | Data Logger Sets for process- and charge control, for routine control, mapping and Acceptable Quality Limit (AQL)

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SL 1111 Temperature / pressure data logger set
for temperature and pressure monitoring as well as for A_0 value calculation in steam sterilizers, washer-disinfectors and washer-disinfectors for endoscopes

The set contains:

- 1 x EBI 12-TP231 Pressure / temperature data logger with Luer-Lock connection *(see page 21)*
- AL 101 Silicone protection box for loggers
- Winlog.med Software
- EBI IF 150 Interface
- Carrying case „SYSTAINER"
- pH & conductivity tester (*see page 57*)

Type	Description	Part No.
SL 1111	EBI 12 Data logger set for steam sterilizers and washer-disinfectors	1250-1111

SL 1201 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 contains:

- 1 x EBI 11-T235 Mini temperature data logger, needle length: 25 mm
- 1 x EBI 11-P111 Mini pressure data logger
- Sealing kit DAC-validation set
- EBI IF 300, 4-port Interface
- Winlog.med, evaluation software
- spypach Endoscope-Dummy "spo-pro" Basic
- Aluminum carrying case EBI TAK ALU

Type	Description	Part No.
SL 1201	Endoscope set routine control BASIC	1250-1201

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SL 1521 EBI 16 Bowie&Dick-Test Set
for steam sterilizers certified according to ISO 11140-4

The set contains:

- 1 x Bowie&Dick-Test EBI 16
  (see page 27)
- Winlog.med software
- EBI IF 150 interface
- Carrying case „SYSTAINER"

Type	Description	Part No.
SL 1521	EBI 16 Bowie&Dick-Test Set for steam sterilizers	1250-1521

SL 1621 EBI 16 Bowie&Dick-Test and Process Control Set
for steam sterilizers and washer-disinfectors

The set contains:

- 1 x Bowie&Dick-Test EBI 16
  (see page 27)
- 1 x EBI 12-TP231
  Temperature / pressure data
  logger *(see page 21)*
- Winlog.med software
- EBI IF 150 interface
- Carrying case „SYSTAINER"

Type	Description	Part No.
SL 1621	EBI 16 Bowie&Dick-Test Set for steam sterilizers and washer-disinfectors	1250-1621

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Data Logger Sets | Data Logger Sets for process- and charge control, for routine control, mapping and Acceptable Quality Limit (AQL)

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SL 400X EBI 11 Mini Data Logger Set for Pasteurization and Sterilization
for temperature monitoring in cans

The set contains:

- 1 x EBI 11-T23x Mini temperature data logger, needle length: 20 mm, 50 mm or 100 mm
- AL 114 can adapter set
- EBI IF 100 interface
- Winlog.pro software
- Carrying case „SYSTAINER"

Mini Temperature Data Logger, 1-channel

Type	
EBI 11-T230	Needle length: 20 mm
EBI 11-T231	Needle length: 50 mm
EBI 11-T233	Needle length: 100 mm

Type	Description	Part No.
SL 4002	EBI 11-T230 Set for pasteurization and sterilization	1250-4002
SL 4003	EBI 11-T231 Set for pasteurization and sterilization	1250-4003
SL 4004	EBI 11-T233 Set for pasteurization and sterilization	1250-4004

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SL 401X EBI 12 Data Logger Set for Pasteurization and Sterilization
for temperature monitoring in tins

The set contains:

- 1 x EBI 12-T23X Temperature data logger, needle length: 50 mm, 75 mm, 100 mm or 150 mm
- EBI DA-SET Can Adapter
- EBI IF 100 Interface
- Winlog.pro Software
- Carrying case „SYSTAINER"

Type	Description	Part No.
SL 4011	EBI 12-T230 set for pasteurization and sterilization	1250-4011
SL 4012	EBI 12-T231 set for pasteurization and sterilization	1250-4012
SL 4013	EBI 12-T232 set for pasteurization and sterilization	1250-4013
SL 4014	EBI 12-T233 set for pasteurization and sterilization	1250-4014

SL 4102 EBI 11 Mini Data Logger Set for Pasteurization
for temperature monitoring in bottles

The set contains:

- 1 x EBI 11-T230 Mini temperature data logger, needle length: 20 mm
- AL 115 Bottle adapter set
- EBI IF 100 interface
- Winlog.pro software
- Carrying case „SYSTAINER"

Type	Description	Part No.
SL 4102	EBI 11-T230 Mini data logger set for pasteurization	1250-4102

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Data Logger Sets | Data Logger Sets for process- and charge control, for routine control, mapping and Acceptable Quality Limit (AQL)

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SL 412X EBI 12 Data Logger Set for Pasteurization
for temperature monitoring in bottles and cans

The set contains:

- 1 x EBI 12-T46X Temperature data logger, needle length: 135 mm, 190 mm, 245 mm, 270 mm or 300 mm
- EBI FL-S Bottle Adapter
- EBI DA Can Adapter
- EBI IF 100-1 Interface
- Winlog.pro Software
- Carrying case „SYSTAINER"

Type	Description	Part No.
SL 4121	EBI 12-T461 Data logger set for pasteurization	1250-4121
SL 4122	EBI 12-T462 Data logger set for pasteurization	1250-4122
SL 4123	EBI 12-T463 Data logger set for pasteurization	1250-4123
SL 4124	EBI 12-T464 Data logger set for pasteurization	1250-4124
SL 4125	EBI 12-T465 Data logger set for pasteurization	1250-4125

SL 4211 EBI 12 Basic Temperature Monitoring Set
Temperature monitoring system for different applications

The set contains:

- 1 x EBI 12-T100 Temperature data logger
- EBI IF 100 Interface
- Winlog.pro Software
- Carrying case „SYSTAINER"

Type	Description	Part No.
SL 4211	EBI 12 Basic temperature monitoring set	1250-4211

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Data Logger Sets for Operation and Process Qualification

- **EBI 11 Mini Data Logger Sets**
  SL 1221: Validation set for washer-disinfectors for endoscopes (*see page 50)*
  SL 3301: Validation set for DAC Universal, small sterilizers and washer-disinfectors (*see page 52*)

- **EBI 12 Precision Data Logger Sets**
  SL 2001: for washer-disinfector (*see page 51*)
  SL 3001: for benchtop sterilizers (*see page 51*)
  SL 3101: for large steam sterilizers (*see page 52*)

The sets can individually be expanded or compiled by yourself from one or more data loggers (EBI 11, EBI 16 or EBI 12), the appropriate interface and the corresponding software. Talk to us!

SL 1221 Complete Validation Set
for Washer-Disinfectors for Endoscopes

For the validation of thermal processes in washer-disinfectors for endoscopes according to 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 contains:

- 3 x EBI 11-T235 Mini temperature data logger, needle length: 25 mm
- 1 x 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 55.

Type	Description	Part No.
SL 1221	Endoscope set validation PROFESSIONAL	1250-1221
Spo-pro BASIC	Dummy BASIC without logger	1340-6086
Spo-pro-CLASSIC	Dummy CLASSIC without logger	1340-6087
Spo-pro PROFESSIONAL	Dummy PROFESSIONAL without logger	1340-6088

SL 2001 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 12 or EBI 11), the appropriate interface and corresponding software. Talk to us!

The set contains:

- 1 x EBI 12-T220 Temperature data logger
- 2 x EBI 12-T441 Temperature data loggers
- 1 x EBI 12-TP231 Temperature / pressure data logger
- EBI IF 200, 4-port Interface with USB connection and antenna
- TÜV certified software Winlog. validation
- Carrying case „SYSTAINER"

Type	Description	Part No.
SL 2001	Validation set for washer-disinfectors	1250-2001

SL 3001 Complete Validation Set
for benchtop 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 11, EBI 16 or EBI 12), the appropriate interface and corresponding software. Talk to us!

The set contains:

- 1 x EBI 12-TP453 Temperature / pressure data logger with AL 101 silicone protection box
- EBI IF 200 4-port Interface with USB connection and antenna
- TÜV certified software Winlog.validation
- Carrying case „SYSTAINER"

Type	Description	Part No.
SL 3001	Validation set for small steam sterilizers	1250-3001

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SL 3101 Complete Validation Set
for large steam sterilizers

For the validation of steam sterilizers according to ISO 17665.

The set can individually be expanded or compiled yourself from one or more data loggers (EBI 11, EBI 16 or EBI 12), the appropriate interface and and corresponding software. Talk to us!

The set contains:

- 5 x EBI 12-T471 Temperature data loggers with AL 107 silicone protection boxes
- 1 x EBI 12-TP453 Temperature/ pressure data logger with AL 101 silicone protection box
- EBI IF 200, 4-port Interface with USB connection and antenna
- TÜV certified software Winlog. validation
- 2 x AL 190 silicone cable strap sets
- Carrying case „SYSTAINER"

Type	Description	Part No.
SL 3101	Validation set for large steam sterilizers	1250-3101

SL 3301 Complete Validation Set
for DAC UNIVERSAL, small steam sterilizers as wells 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 certified 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
- 1 x EBI 11-T237 Mini temperature data logger, needle length: 165mm
- 1 x EBI 11-P111 Mini pressure data logger
- Sealing-kit for EBI 11
- EBI IF 300, 4-port Interface
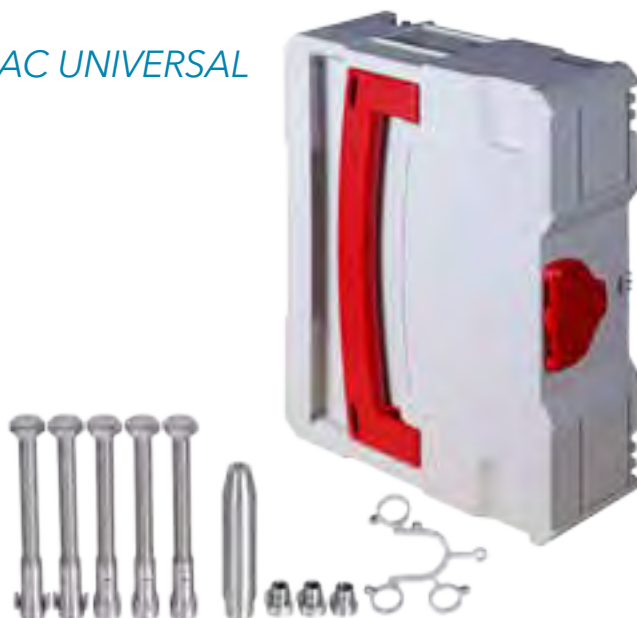- Winlog.validation Software
- Carrying case „SYSTAINER"

Type	Description	Part No.
SL 3301	Validation set for DAC Universal, small steam sterilizers as well as washer disinfectors	1250-3301

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Equipment for operation- or process qualification

AL 3300 DAC Adapter-Set
for validation of the thermal process in DAC UNIVERSAL

The set contains:

- 1 x Logger mount
- 1 x PCD test body incl. adapter for ISO, Sirona and KaVo
- 5 x M12x100 worst case load incl. adapter
- Carrying case „SYSTAINER"

AL 3301 – 3303 DAC Adapter-Set
for validation of the cleaning capacity in the DAC UNIVERSAL

The AL 3301 set contains:

- 3 x Adapter for test soil „ISO" Connection

The AL 3301 set contains:

- 3 x Adapter for test soil „Sirona" Connection

The AL 3301 set contains:

- 3 x Adapter for test soil „KaVo" Connection

Designed to use the test soil from the SMP GmbH Tübingen.

Other Accessories

AL 126 Test adapter for hollow bodies, hoses and endoscopes
for validation in washer-disinfector and endoscope washer

For measuring the temperature
and pressure within hollow
bodies

Exact measurement of the
temperature due the plastic
housing

Approximately available from end of Q1 2018

AL 127 Trolley „SYSTAINER"
for the easy transport of Systainers

For transport of systainers

Fixed seat of the systainers on
the trolley

Type	Description	Part No.
AL 3300	DAC Adapter set for thermal testing	1340-6052
AL 3301	DAC Test soil adapter set „ISO"	1248-3301
AL 3302	DAC Test soil adapter set „Sirona"	1248-3302
AL 3303	DAC Test soil adapter set "Kavo"	1248-3303
AL 126	Test adapter for hollow bodies, hoses and endoscopes	1248-0126
AL 127	Trolley „Systainer	1248-0127

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Adequate pH- and Conductivity Meters for Validation Sets

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
- Software connection by IF 830, Winlog.pro, Winlog.med, Winlog.validation

Technical Data

Measurement range pH:		0 pH … 14 pH
	mV:	-1,999 … 1,999 mV
	temperature:	-10 °C … +100 °C
Resolution	pH:	0.01 pH;
	mV:	1 mV
	temperature:	0.1 °C
Accuracy	pH:	± 0.03 (± 2 pH-units)
	temperature:	± 0.1 °C
Memory		4,000 measurement values
Temperature		-10 °C … +100 °C
Display		128 x 64 Pixel, backlight
Interface		USB with "Interface HMG USB", galvanically isolated
Battery		3 Batteries Type AA, IEC R6, LR6, 1.5 V
Ambient		-10 °C ... +55 °C
Relative humidity		Max. < 95% (not condensating)
Connections		Connectors BK (4-pin interface socket)
Housing		ABS
Protection class		IP 65
Dimension (L x W x D)		200 mm x 95 mm x 40 mm
Weight		290 g incl. Batteries

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
- Software connection by IF 830, Winlog.pro, Winlog.med, Winlog.validation

Technical Data

Measurement range		0 … 200 µS	TDS 0 …200 mg/l
		0 … 2,000 µS	TDS 0 … 2,000 mg/l
Resolution		0.1 µS; 1 µS	
Accuracy	conductivity:	± 0.5 % of the measuring range	
	temperature:	± 0.1 °C	
Memory		4,000 measurement values	
Temperature		-10 °C … +100 °C	
Display		128 x 64 Pixel, backlight	
Interface		USB with "Interface HMG USB", galvanically isolated	
Battery		3 Batteries Type AA, IEC R6, LR6, 1.5 V	
Ambient		-10 °C ... +55 °C	
Relative humidity		< 95% (not condensating)	
Connections		Connectors BK (4-pin interface socket)	
Housing		ABS	
Protection class		IP 65	
Dimension (L x W x D)		200 mm x 95 mm x 40 mm	
Weight		290 g incl. Batteries	

Type	Description	Part No.
PHT 830 SET 1	pH Meter with plastic electrode	1340-5812
CT830 SET	Conductivity Meter with plastic electrode	1340-5835

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Various electrodes for PHT 830

AT 830 pH K Binder
Temperature compensated
Housing material: plastic
Cable length: 150 cm
Diameter: 12 mm
Shaft length: 120 mm

AT 830 pH G Binder,
laboratory electrode
Temperature compensated
Shaft housing material: glass
Cable length: 100 cm
Shaft diameter: 12 mm
Shaft length: 120 mm

AT 830 pH E Binder,
penetration electrode
Temperature compensated
for measurements in semi-
solid food products and other
materials.
Housing material: glass
Cable length: 100 cm
Shaft/electrode diameter:
15 mm/5 mm
Shaft/electrode length:
65 mm/12 mm

Technical Data	AT 830 pH K	AT 830 pH G	AT 830 pH E
pH measurement range	0 pH ... 14 pH	0 pH ... 14 pH	2 pH ... 13 pH
Temperature measurement range	0 °C ... +100 °C (+32 °F ... +212 °F)	0 °C ... +100 °C (+32 °F ... +212 °F)	+5 °C... +80 °C (+41 °F ... +176 °F)
Electrolyte	Gel	Gel	Referid®

Type	Description	Part No.
AT 830 pH K Binder	Plastic electrode	1339-0661
AT 830 pH G Binder	Measurement electrode for laboratories	1339-0662
AT 830 pH E Binder	Penetration electrode	1339-0663

Electrode for CT 830

AT 830 C Binder
Temperature compensated
Housing material: plastic
Cable length: 150 cm
Diameter: 12 mm
Shaft length: 120 mm

Technical Data	AT 830 C
Conductivity measurement range	0 µS ... 500 mS
Temperature measurement range	0 °C ... +100 °C (+32 °F ... +212 °F)

Type	Description	Part No.
AT 830 C Binder	Plastic electrode	1339-0660

Interface cable for PHT 830 and CT 830

EBI IF 830

For reading out the memory of the PHT 830 and CT830

- Software connection Winlog.pro, Winlog.med, Winlog.validation

Type	Description	Part No.
EBI IF 830	Interface for PHT 830 and CT 830	1340-6011

PHX 800 Basic pH Tester
with acoustic signal

- Automatic deactivation
- Battery charge indicator
- Replaceable battery

Technical Data

pH measurement range	0 pH ... 14 pH
pH measurement accuracy	0.1 pH
pH resolution	±0.2 pH
Operating temperature	0 °C ... +50 °C (+32 °F … 122 °F)
Storage temperature	-25 °C ... +60 °C (-13 °F … 140 °F)
Housing material	ABS plastic
Dimension (L x W x H)	170 x 32 x 15 mm
Weight	Approximately 70 g
Battery	1.5 V A76/LR44
Battery lifetime	Approximately 150 hours
Deactivation	Automatically after 15 minutes

Type	Description	Part No.
PHX 800	Basic pH Tester	1340-5800

TDS 3 Basic Conductivity Tester
Dual Display

- Battery charge indicator
- Replaceable battery

Technical Data

Measurement range	0 ... 1,999 µS	0 … 1,999 ppm
	0 … 19.99 mS	0 … 19.99 ppt
Measurement accuracy	1 µS	
Resolution	1 µS	
Operating temperature	0 °C ... +50 °C (+32 °F … 122 °F)	
Storage temperature	-25 °C ... +60 °C (-13 °F … 140 °F)	
Housing material	ABS plastic	
Dimension (L x W x H)	170 x 32 x 15 mm	
Weight	Approximately 70 g	
Battery	4 x 1.5 V A76/LR44	
Battery lifetime	Approximately 150 hours	

Type	Description	Part No.
TDS 3	Basic Conductivity Tester	1340-5831

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