GREISINGER electronic GmbH

Measuring
Controlling
Monitoring
Recording

E.A.S.Y.Bus®

The intelligent, universal and economic solution

Made in Germany

Temperature • Humidity • Climate • Pressure • CO_2 • CO
Sensors for frequency or standardized signals

GREISINGER electronic GmbH | D-93128 Regenstauf | Hans-Sachs-Straße 26

Advantages of EASYBus

- Minimal amount of planning
- Economic display and monitoring system for several measuring points as well as an optimum cost/performance ratio
- High flexibility: Subsequent modification and extension is possible at any time
- Future-proof and modern technology on the basis of digital signal transmission
- Central data acquisition over far distances

E.A.S.Y.Bus®

The EASYBus system is based on the principle of the ›M-Bus‹ (Meter–Bus). The M-Bus is a stable data bus system, designed and optimized in collaboration with significant industrial firms.

Typical scope of application

- Cooling chambers / storage houses (temperature monitoring)
- Heating systems / air condition and ventilation plants (temperature, relative humidity, CO_2 monitoring)
- Utility rooms / plant rooms / computer rooms / laboratories (temperature, relative humidity)
- Museums and exhibition rooms (temperature, relative humidity)
- Manufacturing rooms (temperature, relative humidity, CO_2)
- Storage rooms (temperature, humidity, dew point)
- Greenhouses (temperature, humidity, CO_2)
- Parking garages (CO monitoring)

The system components

- Numerous sensor modules available (with or without data logging)
- Devices for centralized data collection (measuring, regulating and displaying requested data)
- Devices for decentralized data collection
- Level converter
- PC incl. EASYBus software (data collection and data storage)
- Further system components, e.g. for remote operation
- Comprehensive range of accessories

Available EASYBus sensor modules

- Temperature (Pt 100, Pt 1000, thermocouples)
- Humidity / temperature / atmospheric pressure (relative humidity, dew point temperature, absolute humidity, …)
- Carbon dioxide (CO_2)
- Frequency, rotary speed, flow rate, state registration, …
- Quantity (upward / downward counter)
- Data loggers
- Standardized signal modules for user-defined sensors (4 … 20 mA, 0 … 20 mA, 0 … 50 mV, 0 … 1 V, 0 … 2 V, 0 … 10 V)

Scope of application


Temperature monitoring and regulation:
Cooling chambers
Laboratory + utility rooms
Storage rooms


Relative humidity / dew point / temperature monitoring:
Storage rooms
Heating systems / air condition / ventilation plants
Museums / exhibition rooms
Libraries / laboratories + utility rooms


Relative humidity / atmospheric pressure, CO_2 monitoring:
Manufacturing rooms / storage rooms
Office rooms (to condition the air of the room)
Greenhouses


CO monitoring:
Underground garages / Parking garages
Motorcar garage / car repair
Indoor go-kart tracks

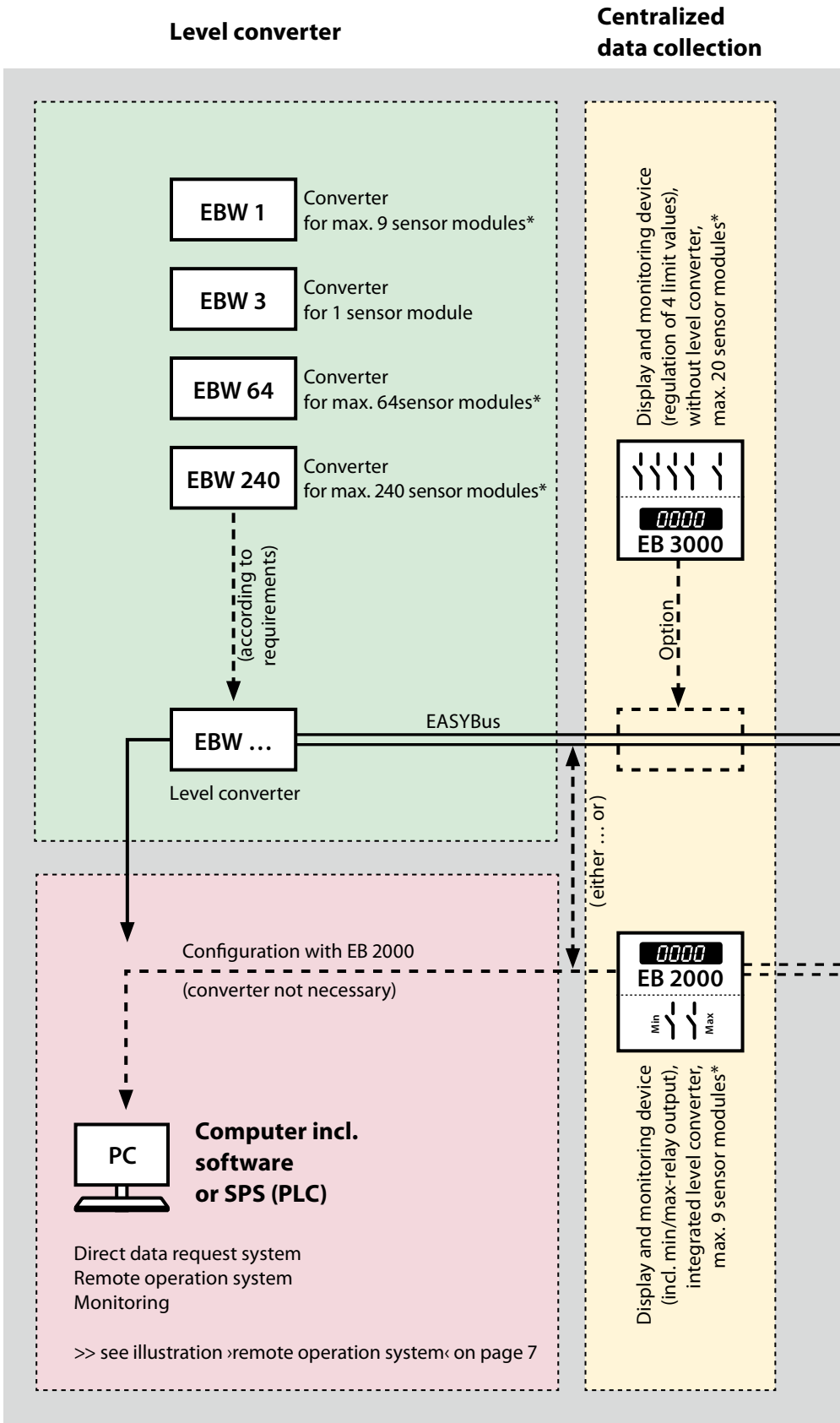
Principle overview

Characteristics of the EASYBus system

- Low-cost wiring by using a twisted 2-pin connection line in either bus or tree design (polarity-free); can be used in any combination
- Bus line for simultaneous power supply and signal transmission
- Bus length up to 1000 m, extensible by using a repeater
- Fully automatic start-up installation via software
- Sensor modules can be changed, removed or added during operation at any time
- Connection of up to 240 sensor modules
- Optimum transmission reliability by means of CRC check
- Bus system is able to process data up to 20 measuring values per second
- Response time inside the EASYBus system ca. 1 sec.; but approx. 20 ms by using a local controlling system

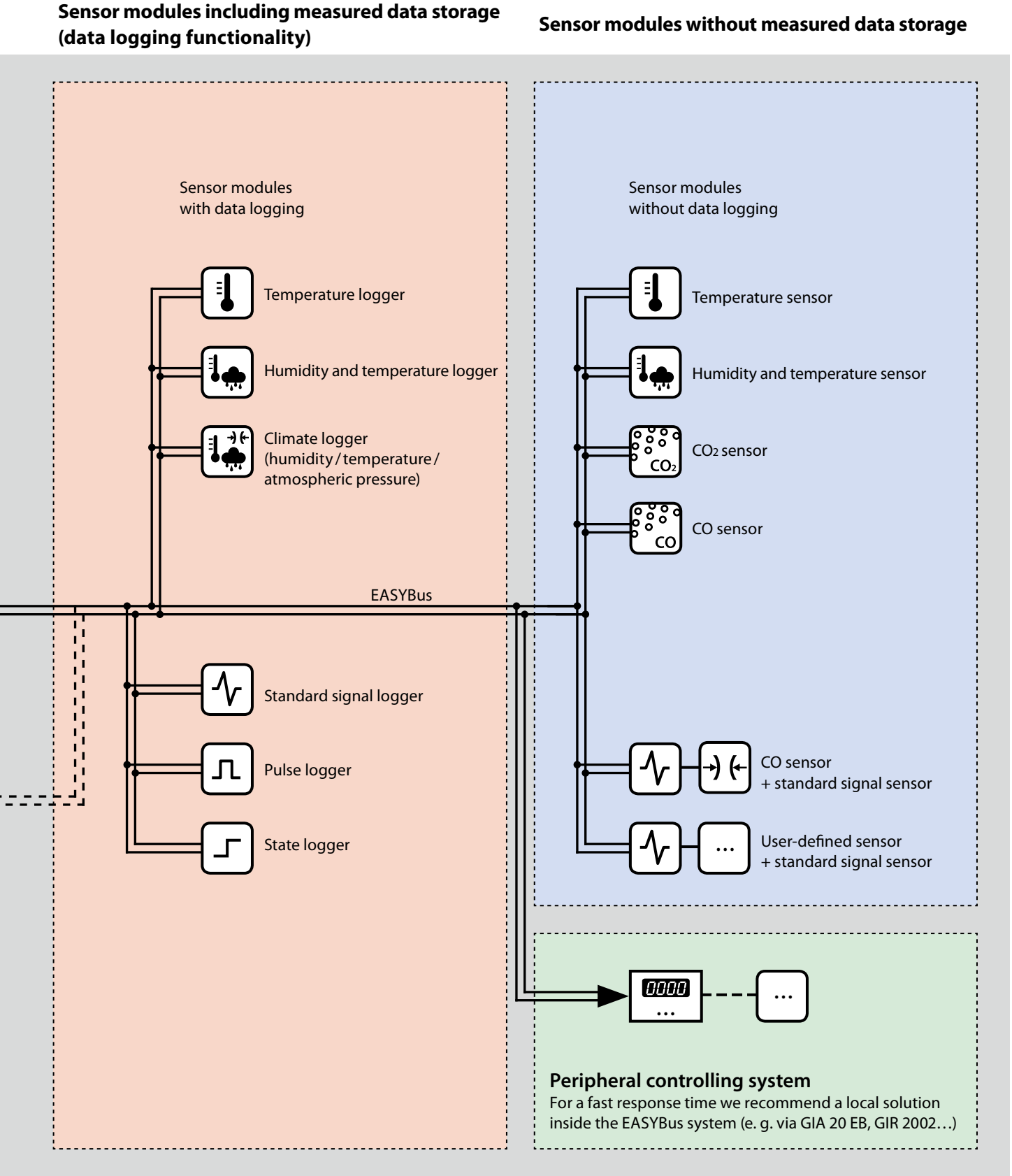
The EASYBus hardware

- 2-pin connection line, based on the principle of the ›M-Bus‹
- Polarity-free bus connection
- Bus system voltage 36 V DC, minimum 24 V DC
- Maximum allowable bus power loss: 12 V DC
- Master/slave system; data transmission of the slaves only on demand



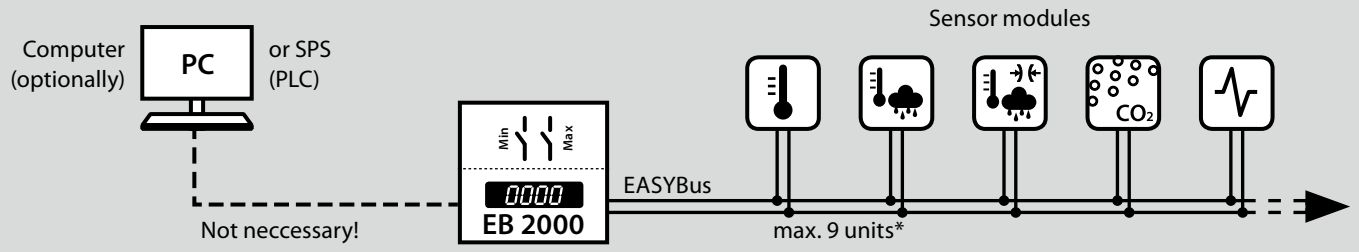
* The exact number of lockable units is depending on the maximum bus load value.

The EASYBus system

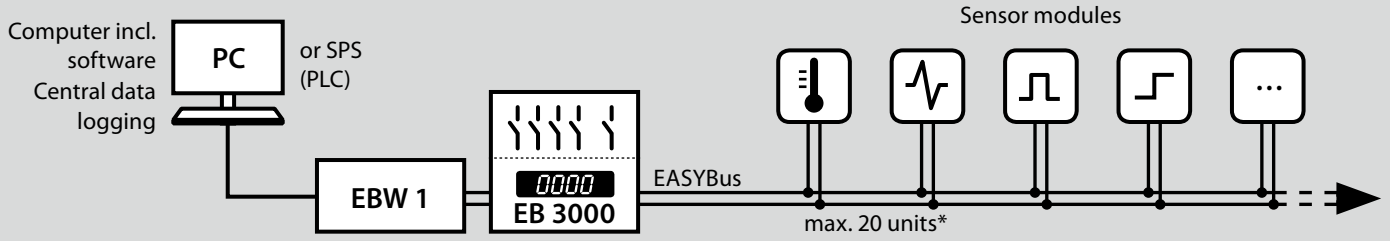


Representative examples

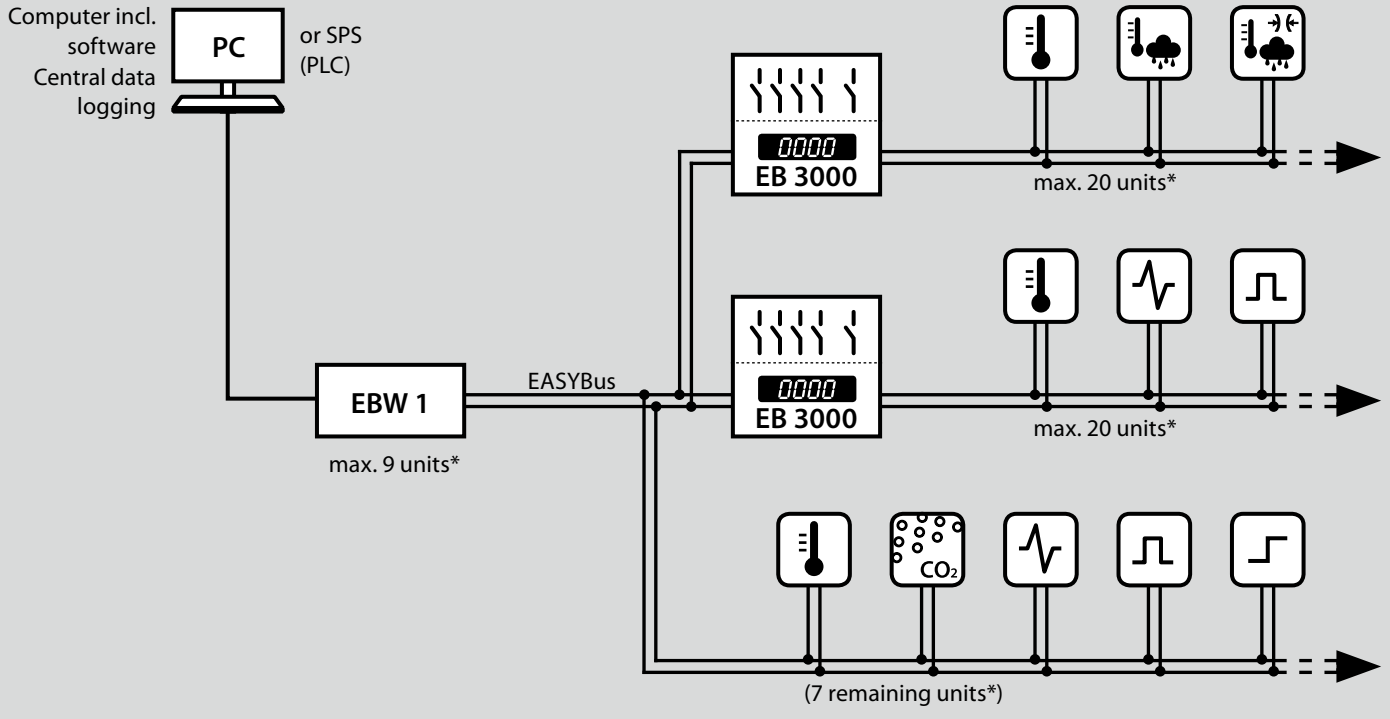
EASYBus basis system — Alarm control



EASYBus basis system including EB 3000 and EBW 1 — Monitoring and controlling



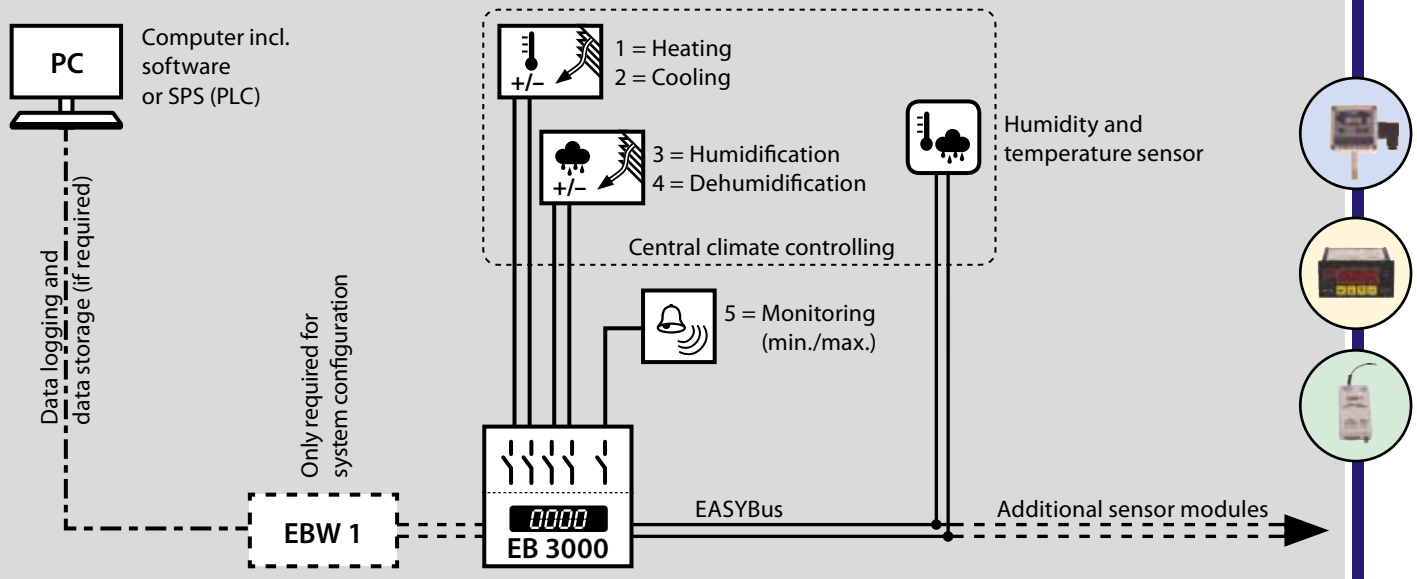
EASYBus system with local sub-assembly groups | EBW 1 and 2 × EB 3000



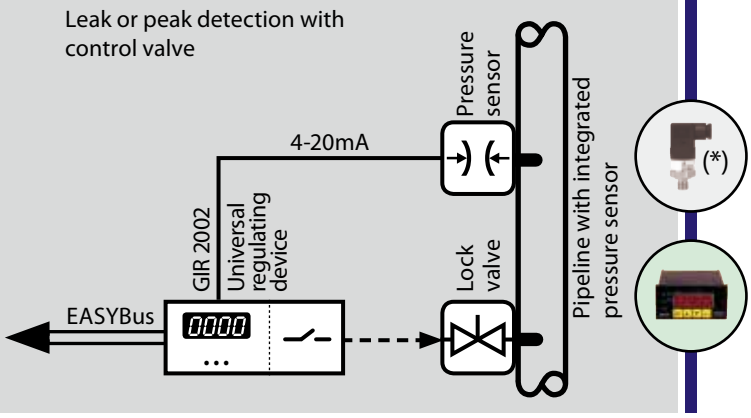
* The exact number of lockable units is depending on the maximum bus load value.

Application examples

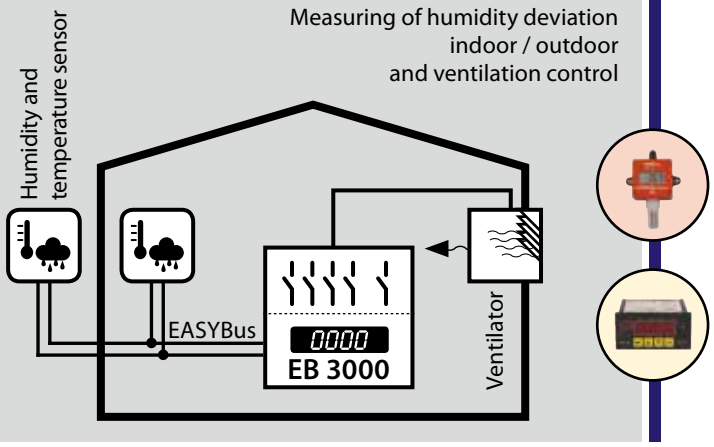
Climate control with EB 3000



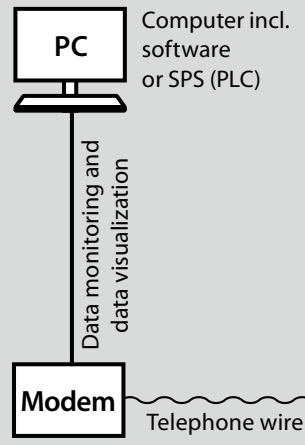
Peripheral loop control system
Quick pressure peaks or leak monitoring



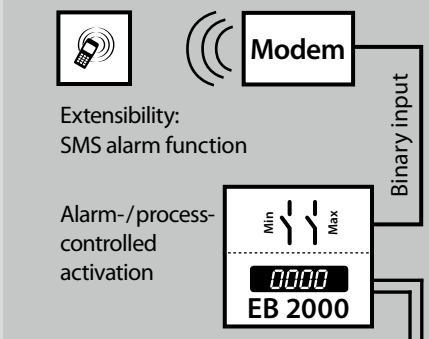
Indoor humidity optimization with EB 3000



Remote operation



SMS alarm function



Remote operation system

* For pressure sensors (e. g. pressure transmitter A-10) see internet or main catalog!

Sensor modules without value memory*

Temperature probe

EBT - IF 1
(without threat,
adequate for clamp ring connection)

EASYBus powered

EBT - IF 2
(with threat G½")

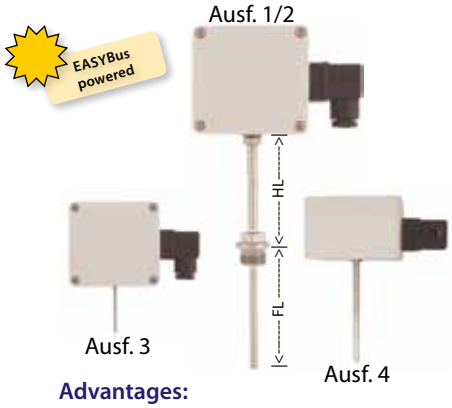
EBT - IF 3
(with threat G½" and collar tube)

probes made of stainless steel	**EBT - IF 1 ****	**EBT - IF 2 ****	**EBT - IF 3 ****
Article-no.	114030	114040	114050
Measuring range	-30.0 … +100.0 °C	-30.0 … +100.0 °C	-70.0 … +400.0 °C
Sensor / probe tube	Internal Pt1000-sensor / probe tube ø 6 mm		
Type (measuring probe)	DIN Class B (higher accuracy available)		
Accuracy	±0.2 % of meas. value ± 0.2 °C (at nominal temperature = 25 °C)		
Operating temperature	-25.0 … +70.0 °C (operating temperature of the electronics in sleeve)		
Cable sleeve	ø 15 x 35 mm (without screwing)		
Process connection	—	threat G ½"	threat G ½"
Length (probe)	FL = 100 mm	FL = 100 mm	FL = 50 mm
Length (collar tube)	—	—	HL = 100 mm
Housing /design	stainless steel V4A (sealed)		

Advantages:

- corrosion-resistant and robust design
- min- / max- value memory
- offset and slope adjustable

Temperature module



	EBT - AP1 **	**EBT - AP2 ****	**EBT - AP3/4 ****	
Article-no.	103205	103215	103222 AP3	103227 AP4
Measuring range (standard)	-50.0 … +150.0 °C	-50.0 … +400.0 °C	-50.0 … +150.0 °C	
Accuracy (temperature)	±0.2 % of meas. value ± 0.2 °C (at nominal temperature = 25 °C)			
Electric connection	angular connector DIN 43650 (IP65)			
Process connection	threat G ½"	threat G ½"	—	
Position of sensor tube	on the side	on the side	side	bottom
Length (probe)	FL = 100 mm	FL = 100 mm	FL = 50 mm	FL = 100 mm
Length (collar tube)	—	HL = 50 mm	—	
Dimension (housing)	82 × 80 × 55 mm (L × W × H)			

Advantages:

- robust industrial design (gray)
- impermeable to splash-water (IP65)
- min- / max- value memory
- optionally with LCD–display
- also available without sensor (design type 5): for connection of external sensors

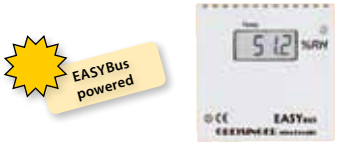
Temperature module

	EBT - 2R **	**EBT - 2RE ****
Article-no.	103180	103190
Temperature probe	integrated in housing	External sensor (V4A / ø 5×50 mm / 1 m)
Sensor element	Temperature sensor Pt1000 according DIN IEC 751	
Measuring range	-25.0 … +70.0 °C	-50.0 … +150.0 °C
Accuracy	±0.4 % of meas. value ± 0.3 °C (at nominal temperature = 25 °C)	
Resolution	0.1 °C	
Dimension	70 × 70 × 26 mm (L × W × H)	

Advantages:

- elegant housing for surface mounting (white)
- in-wall installation
- optionally with LCD–display

Humidity-/ temperature module



	EBHT - 2R **
Article-no.	112740
Measuring range (standard)	0.0 … 100% RH / -25.0 … +70.0 °C
Accuracy humidity (standard)	±2,5 % RH (at range 30 … 80 % RH/ optionally at range 5 … 95 % RH)
Accuracy temperature	±0.4 % of meas. value ± 0.3 °C (at nominal temperature = 25 °C)
Resolution	0.1 % RH / 0.1 °C
Dimension	70 × 70 × 26 mm (L × W × H)

Advantages:

- elegant housing for surface mounting (white)
- in-wall installation
- optionally with LCD–display

* More detailed product informations can be found in the Internet and in our catalogue.

** Further design types and options available (see Internet or catalogue).

No auxiliary energy needed, because of power supply via EASYBus circuit.

Sensor modules without value memory*

Humidity-/ temperature module

EBHT - 1R
mit Option VO

	EBHT - 1K **	EBHT - 1R **	EBT - 2K **
Article-no.	112710	112720	112730
Measuring range (standard	0.0 … 100 % RH. / -40.0 … +120.0 °C		
Accuracy humidity (standard)	±2,5 % RH (at range 30 … 80 % RH/ optionally at range 5 … 95 % RH)		
Accuracy temperature	±0.4 % of meas. value ± 0.2 °C (at nominal temperature = 25 °C)		
Resolution	0.1 % RH and 0.1 °C /0.1 °F		
Electric connection	angular connector DIN 43650 (IP65)		
Position of sensor tube	on the side	on the side	bottom
Length (probe)	FL = 220 mm	FL = 50 mm	FL = 220 mm
Dimension (housing)	82 × 80 × 55 mm (L × W × H)		

Advantages:

- robust industrial design (gray)
- min- / max- value memory
- optionally with LCD–display for an on-the-spot adjustment and operation

Carbon dioxide module

	EBG - CO2 - 1R **
Article-no.	114570
Measuring range	0 … 2000 ppm CO_2
Measuring principle	Infrared method (NDIR)
Accuracy	± 50 ppm ± 2 % of meas. value
Auxiliary energy	12 … 30 V DC, max. 600 mA
Electric connection	angular connector DIN 43650 (IP65)
Dimension (housing)	82 × 80 × 55 mm (L × W × H)

Advantages:

- robust industrial design (gray)
- min- / max- value memory
- automatic calibration
- with integrated LCD–display for an on-the-spot adjustment and operation

Carbon monoxide module

	EBG - CO - 1R**
Article-no.	115360
Measuring range	0 … 300 ppm CO (carbon monoxide)
Measuring principle	electrochemical method, continuous measuring
Accuracy	≤ 2 % of 300 ppm CO (cross sensitivity / linearity error acc. to VDI2053)
Auxiliary energy	14 … 28 V DC, max. 50 mA
Electric connection	angular connector DIN 43650 (IP65)
Dimension (housing)	82 × 80 × 55 mm (L × W × H)

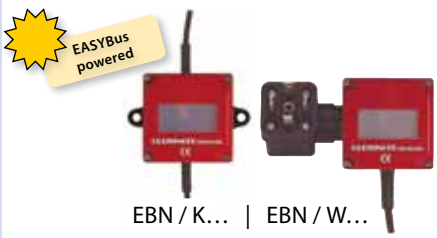
Field of application:

- underground parking lots, car parks, boiler plants and heating systems, car workshops etc.

Advantages:

- robust industrial design (gray)
- Automatic zero point adjustment
- optionally with LCD–display

Standard signal module



EBN / K… | EBN / W…

	EBN / K **	EBN / W **
Article-no.	103340	103350
Measuring range	-1999 … 9999 Digit (scale freely adjustable)	
Input signal **	0 - 2 V / 0 - 10 V / 0 - 20 mA / 4 - 20 mA (only one of these)	
Accuracy	± 0,5 % FS (at nominal temperature = 25 °C)	
Type (electric connection)	0,5 m connection cable, loose ends	angular connector (DIN 43650)
Dimension (housing)	48.5 × 48.5 × 35.5 mm (L × W × H)	

Advantages:

- industrial design, impermeable to splash-water (IP65)
- Monitoring of up to 150 transmitters possible (via interface converter)

* More detailed product informations can be found in the Internet and in our catalogue.

** Further design types and options available (see Internet or catalogue).

No auxiliary energy needed, because of power supply via EASYBus circuit.

Sensor modules with value memory (logger function) *

Temperature logger

EASYLog 40 K

EASYLog 40 KH…

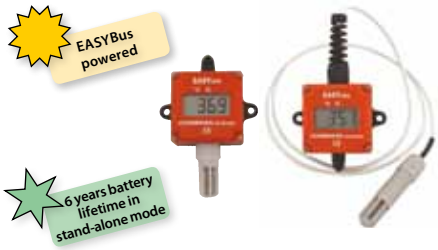
	EASYLOG 40K **	EASYLOG 40KH **
Article-no.	103420	103430
Design (sensor tube)	plastic, Ø 7 × 30 mm, attached on device	VA, Ø 5 × 50 mm, silicone cable 1 m
Measuring range	-25.0 … +60.0 °C	-50.0 … +150.0 °C
Accuracy	±0.5 °C (at nominal temperature= 25 °C)	
Storage capacity	48 000 measuring values	
Recording	interval from 2 sec to 5 h / recording time: 500 days (if interval is 15 min)	
Dimension (housing)	48.5 × 48.5 × 35.5 mm (L × W × H)	

	EASYLOG 40KH-E300 **	EASYLOG 40KH-E600 **
Article-no.	103440	108960
Design (sensor tube)	VA, Ø 3 × 100 mm, cable sleeve glass silk cable 1 m	VA, Ø 3 × 100 mm, cable sleeve silicone cable 1 m
Measuring range	-50.0 … +300.0 °C	0 … +600 °C
Accuracy (at nominal temp.)	±0.5 °C ±0.2% of meas. value	±1 °C ±0.2% of meas. value
Storage capacity	48 000 measuring values	
Recording	interval from 2 sec to 5 h / recording time: 500 days (if interval is 15 min)	
Dimension (housing)	48.5 × 48.5 × 35.5 mm (L × W × H)	

Advantages:

- industrial design, impermeable to splash-water (IP65) • LCD–display • battery service life approx. 6 years (if interval is 15 min)

Humidity / temperature logger



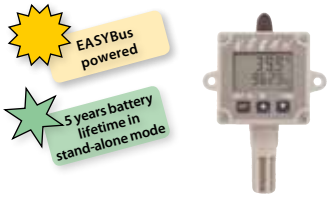
EASYLog 24 RFT | EASYLog 24 RFT-E

	EASYLOG 24RFT **	EASYLOG 24RFT-E **
Article-no.	103490	103500
Design (sensor tube)	polyamide , Ø 15 mm, attached	PVDF, Ø 14 × 68 mm, teflon cable 1 m
Measuring range	0.0 … 100% RH / -25.0 … +60.0 °C	
Accuracy (humidity)	≤ ±3 % (at range 11 … 90 % RH)	
Accuracy (temperature)	± 0.5 °C (at nominal temperature = 25 °C)	
Storage capacity	48 000 measuring values	
Recording	interval from 4 sec to 5 h / recording time: 500 days (if interval is 15 min)	
Dimension (housing)	48.5 × 48.5 × 35.5 mm (L × W × H)	

Advantages:

- industrial design, impermeable to splash-water (IP65) (except protection cap) • LCD–display
- battery service life approx. 6 years (if interval is 15 min)

Climate logger



	EASYLOG 80CL **
Article-no.	114560
Design (sensor tube)	polyamide , Ø 15 mm, attached on device
Measuring range	0.0 … 100 % RH / -25.0 … +60.0 °C / 300.0 … 1100.0 hPa
Accuracy	±2 % (humidity) / ±0.3 °C ±0.017 * (T - 25 °C) / ±1.0 hPa (pressure)
Storage capacity	250 000 values for each meas. variable (in max. 64 recording sequences)
Recording	interval from 4 sec to 5 h / recording time: 7 years (if interval is 15 min)
Special features	double display, add. meas. variables (i.e. dew point temp. / wet bulb temp.)
Dimension (housing)	48.5 × 48.5 × 35.5 mm (L × W × H)

Advantages:

- 3x sensor: temperature, air pressure, humidity • industrial design, impermeable to splash-water (IP65) (except protection cap)
- with integrated LCD–display for an on-the-spot adjustment and operation • battery service life approx. 5 years (if interval is 15 min)

* More detailed product informations can be found in the Internet and in our catalogue.

** Further design types and options available (see Internet or catalogue).

No auxiliary energy needed, because of power supply via EASYBus circuit.

Average battery service life at 15–min recording interval

Sensor modules with value memory (logger function) *

Standard signal logger

EASYBus powered

6 years battery lifetime in stand-alone mode

EASYLOG 40 NS W | EASYLOG 40 NS K

	EASYLOG 40NS W **	EASYLOG 40NS K **
Article-no.	103530	103540
Design (sensor tube)	angular connector (DIN 43650)	screwing and connection cable
Display range	-1999 … 9999 digit (scale freely adjustable)	
Decimal point	arbitrarily settable	
Input signal	0 - 2 V / 0 - 10 V / 0 - 20 mA / 4 - 20 mA (only one of these)	
Accuracy	± 0.5 % FS (at nominal temperature = 25 °C)	
Storage capacity	48 000 measuring values	
Recording	interval from 2 sec to 5 h / recording time: 500 days (if interval is 15 min)	
Dimension (housing)	48.5 × 48.5 × 35.5 mm (L × W × H)	

Field of application:

- Connection of any standard signal sensor modules to the EASYBus

Advantages:

- industrial design, impermeable to splash-water (IP65) (red) • LCD–display • can substitute expensive recorder
- battery service life approx. 6 years (if interval is 15 min)

Pulse logger

EASYBus powered

6 years battery lifetime in stand-alone mode

	EASYLOG 40IMP/S **	EASYLOG 40IMP/T **
Article-no.	103550	103555
Design (sensor tube)	screwing and connection cable (0.5m, loose ends)	
Resolution display/storage	1 digit	
Input signal	passive volt-free switching contact	active TTL-signal
Accuracy	cycle time ± 50 ms	
Measuring range	0 … 30 000 pulses/cycle	
Storage capacity	48 000 measuring values	
Recording	interval from 2 sec to 5 h / recording time: 500 days (if interval is 15 min)	
Dimension (housing)	48.5 × 48.5 × 35.5 mm (L × W × H)	

Advantages:

- industrial design, impermeable to splash-water (IP65) • LCD–display • battery service life approx. 6 years (if interval is 15 min)

State logger

EASYBus powered

6 years battery lifetime in stand-alone mode

	EASYLOG 40BIN **
Article-no.	112660
Design (sensor tube)	screwing and connection cable (0.5m, loose ends)
Resolution display/storage	1 digit
Input signal	passive volt-free switching contact
Display range	0 (on) / 1 (off)
Measuring value	0 = contact open, 1 = contact closed
Cycle	2 sec to 5 h
Storage capacity	48 000 measuring values
Recording	interval from 2 sec to 5 h / recording time: 500 days (if interval is 15 min)
Battery service life	approx. 6 years (if interval is 15 min)
Dimension (housing)	48.5 × 48.5 × 35.5 mm (L × W × H)

Field of application:

- Recording of operating states • Determining of the operating time of machines

Advantages:

- industrial design, impermeable to splash-water (IP65) • LCD–display • battery service life approx. 6 years (if interval is 15 min)

* More detailed product informations can be found in the Internet and in our catalogue.

** Further design types and options available (see Internet or catalogue).

☼ No auxiliary energy needed, because of power supply via EASYBus circuit.

✲ Average battery service life at 15–min recording interval

Central data collection*

Display / regulating / monitoring

EASYBus–device	**EB 3000**
Article-no.	112750
Input	max. 20 sensor modules **
Allowed EASYBus–length	approx. 500 m (depending on wiring)
Display	4-digit LED (measured value), 2-digit LED (channel)
Switching outputs	4 normally open contacts
Alarm output	1 change-over contact
Sensor interface	EASYBus
PC interface	EASYBus
Particularities	interface converter required (EBW …)
Power supply	230 V AC, 50/60 Hz
Dimension (housing)	48 × 96 × 100 mm (H × W × D)

Advantages / Field of application:

- all basic functions are operable via the buttons
- comfortable and easy configuration via the "EASYBUS-Configurator" software.
- integrated min-/max boundary value for up to 20 sensors, this ensures the alarm monitoring of all connected sensor modules
- 4 boundary value relay outputs offer multiple regulating functions (i.e. 4x 2-point controller, 2x 3-point controller, 4-contact switch)
- up to 20 EASYBus modules can be connected

Special feature:

New values can be calculated from the values of the connected sensor modules (i.e. average, maximum value, sum, difference, etc.) by mathematical functions. This calculated values occupy one channel and can therefore than be handled like that ones of connected sensor modules (boundary value, regulating, ...)

Display / monitoring

EASYBus–device	**EB 2000 MC**
Article-no.	103130
Input	max. 9 sensor modules **
Allowed EASYBus–length	approx. 200 m (depending on wiring)
Display	4-digit LED (measured value), 9 LEDs (channel)
Switching outputs	2 normally open contacts, volt-free
Special feature	no interface converter required
Sensor interface	EASYBus
PC interface	RS232
Power supply	230 V AC, 50/60 Hz
Dimension (housing)	48 × 96 × 100 mm (H × W × D)

Advantages / Field of application:

- all basic functions are operable via the buttons
- comfortable and easy configuration via the "EASYBUS-Configurator" software.
- integrated min-/max boundary value for up to 9 sensors, this ensures the alarm monitoring of all connected sensor modules
- can be directly (without external interface converter) connected to the PC, because of the integrated RS 232 interface (EASYBus protocol)
- up to 9 EASYBus modules can be connected

* More detailed product informations can be found in the Internet and in our catalogue.

* * The actual bus load of the devices sets the limit to the number of connectable modules.

Decentralised regulating *

Display / regulating

Can be uses as universal display or regulating in an EASYBus system!

Universal measuring/regulating device	**GIR 2002**	**GIR 2002 PID**
Article-no.	113100	113105
Control mode	On/Off–control mode	PID–control mode
Measuring input	standard signal, Pt100, Pt1000, thermocouple, frequency, flow rate, rotation speed, up-/down counter, serial interface	
Display / display range	4-digit LED display / -1999…9999 digit (stand. signal: scale freely adjustable)	
Switching output (volt-free)	1x change-over contact (250 V AC / 10A), 1x norm. open contact (250 V AC / 5A)	
Switching functions	display, 2-point-controller, 3-point-controller, 3-point-steppin- controller (only at PID) 2-point-controller with alarm, min-/max-alarm	
Interface	serial (electrically isolated), EASYBus compatible	
Transmitter supply	24 V DC / 20 mA (electrically isolated)	
Power supply	230 V AC, 50/60 Hz	
Dimensions (housing)	48 × 96 × 115 mm (H × W × D)	

Advantages / Field of application:

- fast regulating and monitoring functions (reaction time < 25 msec at standard signal), alarm delay adjustable
- 5 programmable switch functions at GIR 2002 / 6 programmable switch functions at GIR 2002 PID
- large self-monitoring and diagnostic system, limit function, digital filter, min-/max- value memory
- P, PI, PD and PID control mode, 3-point-stepping-controller, continuous output (only at GIR 2002 PID)
- freely adjustable analog output 0(4)-20 mA, 0-10V and output for external solid state
- up to 240 devices connectable via the serial interface (EASYBus–compatible)

Display / regulating

Can be uses as universal display or regulating device in an EASYBus system!

Universal measuring/regulating device	**GIA 20 EB**
Article-no.	102625
Measuring input	standard signal, Pt100, Pt1000, thermocouple or frequency
Display / display range	4-digit LED display / -1999…9999 digit (stand. signal: scale freely adjustable)
Switching output	2 (integrated
Switching functions	display, 2-point, 3-point, 2-point with alarm (or min-/max-alarm)
Interface	serial (electrically isolated), EASYBus compatible
Power supply	9 … 28 V DC
Panel cut-out	21.7 ± 0.5 mm × 45.0 ± 0.5 mm (H × W)
Dimensions (housing)	24 × 48 mm (H × W), installing depth approx. 65 mm

Advantages / Field of application:

- fast regulating and monitoring functions (reaction time < 25 msec at standard signal), alarm delay adjustable
- large self-monitoring and diagnostic system, limit function, digital filter, min-/max- value memory
- up to 240 devices connectable via the serial interface (EASYBus–compatible)

Switching module

	EBB 2 OUT / BP	**EBB 2 OUT / 12V**	**EBB 4 OUT / BP**	**EBB 4 OUT / 12V**
Article-no.	114670	114675	113680	113685
Power supply	BUS powered	12VDC/150mA	BUS powered	12VDC/150mA
Relay outputs	2 change-over contacts		4 change-over contacts	
Switching capacity	250 V AC / 16 A resistive load			
Switching reaction	< 1 Sek.	< 0,1 Sek.	< 2 Sek.	< 0,1 Sek
Control	via EBUW 232 A or software EASYControl			

Advantages:

- 2 (4) bistable switching contacts for decentral regulating / control functions
- several accumulative relays (min-, max- and system-alarm)
- control via EASYBus, no additional auxiliary energy required
- functional snap-on housing

* More detailed product informations can be found in the Internet and in our catalogue.

Interface converter *

Remote enquiry system *

Interface converter

EBW 1 | EBW 3

EBW 64 | EBW 240

	EBW 1	EBW 3
Article-no.	103360	115130
Input	max. 9 sensor modules **	1 sensor module
Allowed EASYBus–length	200 m	2 m
Interfaces	PC: RS232 / sensor: EASYBus	PC: USB / sensor: EASYBus
Power supply	230 V AC, 50/60 Hz	*none required (USB powered)*
Dimensions (housing)	112 x 80 x 45 mm (L × W × H)	56 x 31 x 24 mm (L × W × H)

	EBW 64	EBW 240
Article-no.	103640	103650
Input	max. 64 sensor modules **	max. 240 sensor modules **
Allowed EASYBus–length	1000 m	
Interfaces	PC: RS232 / sensor: EASYBus	
Power supply	230 V AC, 50/60 Hz	
Dimensions (housing)	100 x 75 x 110 mm (L × W × H)	200 x 240 x 85 mm (L × W × H)

Field of application:

- Bidirectional interface converter, which allows to connect EASYBus–modules to a PC

Remote enquiry system components / alarm monitoring

Type	Description	Article-no.
MODEM 2500	Analog hat-rail modem with password protection	114280

- EASYBus remote enquiry via the analog telephone network as well as SMS-alerting
- can be used with: EBS 9M, GSOFT 40K
- Scope of delivery: modem incl. wall power supply, phone cable, protocol converter EBUW232, null modem cable, 9-pin. DSub connection cable

MODEM 3500 GSM	GSM-modem (for D1 or D2) with password protection	114450

- EASYBus remote enquiry via the 900 MHz network as well as SMS-alerting
- power supply: 10-60 VDC
- Scope of delivery: modem incl. protocol converter EBUW232, null modem cable, 9-pin. DSub connection cable
- Accessory (extract): aerial 3000 GSM (dual-band industrial aerial with mounting), hat-rail power supply GNG 12/300, wall power supply GNG 12 LE, alarm monitoring module EBUW 232 A

DFM 232 SET	Radio data transmission module set, 433 MHz, transmitter and receiver	113730

- for the wireless monitoring of EASYBus-modules via a 433 MHz-network
- bidirectional RS 232-interface (DB9), i.e. for connection of EBW 1
- High range up to 1500 m (in open field), range inside buildings similar to DECT.

LAN 3000	Serial-to-ethernet-converter	114550

- for the wireless monitoring of EASYBus-modules via LAN or Internet
- Serial RS 232-input (DB9), i.e. for connection of EBW 1, output 1 × LAN Port RJ-45 10/100 Mbps
- Supported protocols : TCP, DHCP, HTTP etc., network connection via stat. IP, DHCP or PPPoE

* More detailed product informations can be found in the Internet and in our catalogue.

* * The actual bus load of the devices sets the limit to the number of connectable modules.

Software *

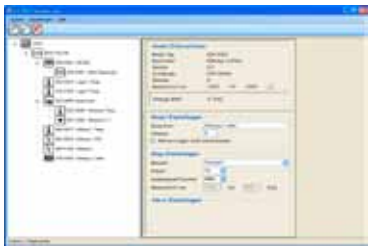
Configuration software

EASYBus–Configurator	gratis download

Description

Software for the comfortable configuration of EASYBUS-systemes with EB 3000

- min.-/max.- value adjustment
- clear presentation in tabular form
- arrange the measuring points via drag and drop



Software

EASYControl	Article-no.
Description	103660

Software for recording, monitoring, displaying and documenting of up to 240 EASYBus sensor modules, data loggers or devices of the type GIR / GIA

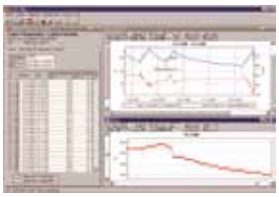
- min.-/max.- value monitoring
- clear presentation in tabular form
- arrange the measuring points via drag and drop
- enquiry cycle adjustable for each measuring point
- presentation of the measuring values in diagram form
- automatic sensor detection of new modules

Read-out and operating software

GSOFT 40K	Article-no.
Description	103410

Operating software for data loggers of the series EASYLog incl. connection cable EBSK 01

- output of the logger data to printer
- storage of logger data
- Export of the logger data to ASCII (text)
- display of the logger data in diagram form
- adjustment of the alarm function etc.
- automated read-out / archiving
- remote enquiry vie telephone or mobile phone network

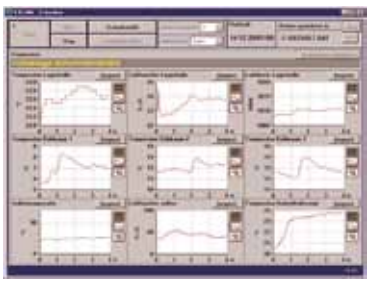


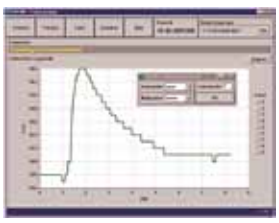
Software for measuring data capture

EBS 9M	Article-no.
Description	100250

Windows software for a low-cost realisation of a multi-channel measuring data capture system

- recorder function
- long-term monitoring
- large display





* More detailed product informations can be found in the Internet and in our catalogue.

Do you have further questions to the EASYBus-system? Please do not hesitated to contact us. We will happily advise you!

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