

GREISINGER — electronic —

The intelligent, universal and economic solution

E.A.S.Y.Bus®









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Measuring Controlling Regulating Monitoring Recording

Temperature • Humidity • Climate • Pressure • CO₂ • CO Sensors for frequency or standardized signals



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, CO₂ monitoring)
- Utility rooms / plant rooms / computer rooms / laboratories (temperature, relative humidity)
- Museums and exhibition rooms (temperature, relative humidity)
- Manufacturing rooms (temperature, relative humidity, CO₂)
- Storage rooms (temperature, humidity, dew point)
- Greenhouses (temperature, humidity, CO₂)
- 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 (Pt100, Pt1000, thermocouples)
- Humidity / temperature / atmospheric pressure (relative humidity, dew point temperature, absolute humidity, ...)
- Carbon dioxide (CO₂)
- 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, CO₂ 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 s; 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

EASYBus definition

Sensor module

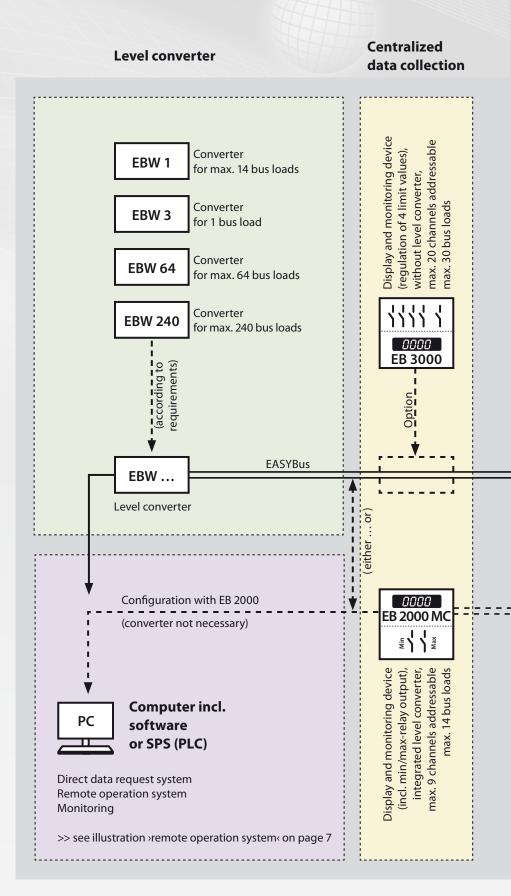
A module with min. one measuring input, that could be connected to an EASYBus converter or an EASYBus master (i.e. EB 3000).

Measuring channel

Every sensor module has one addressable measuring channel for every mesurand (i.e. EBHT-1R has two measuring channels for humidity and temperature).

• Bus load

Load for the EASYBus from connected sensor modules (1 bus load \triangleq 1.5 mA).



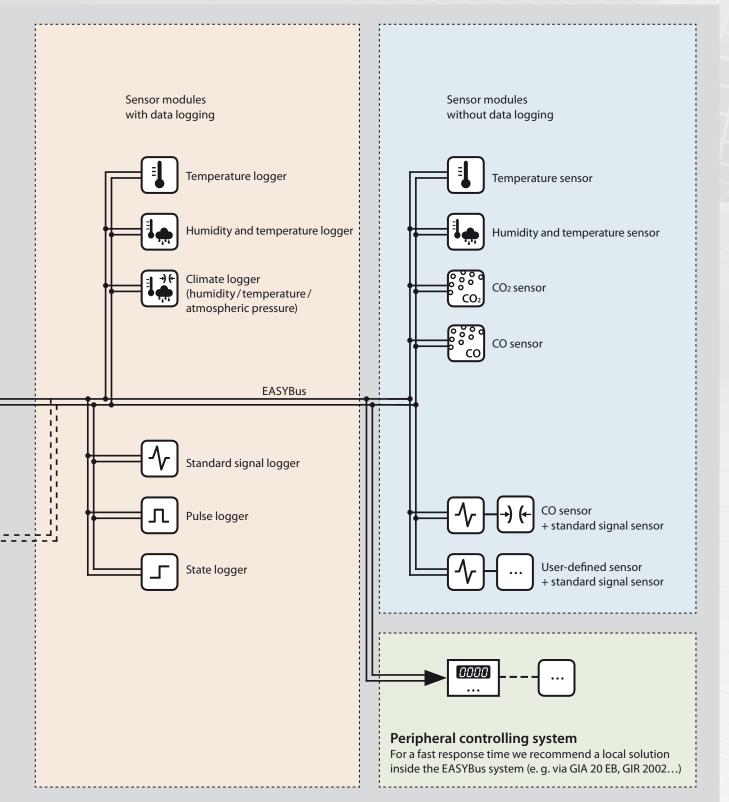
^{*} The exact number of lockable units is depending on the maximum bus load value.



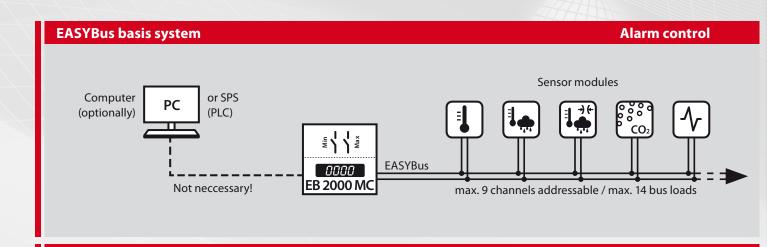
The EASYBus system

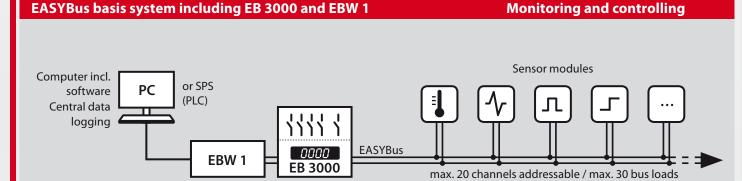
Sensor modules including measured data storage (data logging functionality)

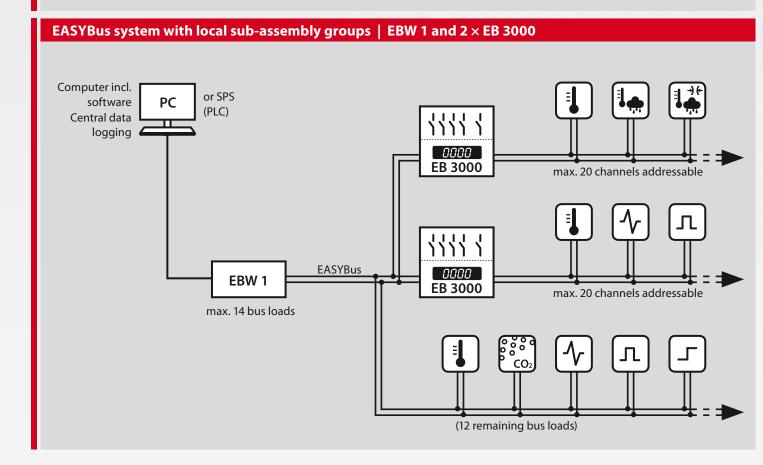
Sensor modules without measured data storage



Representative examples



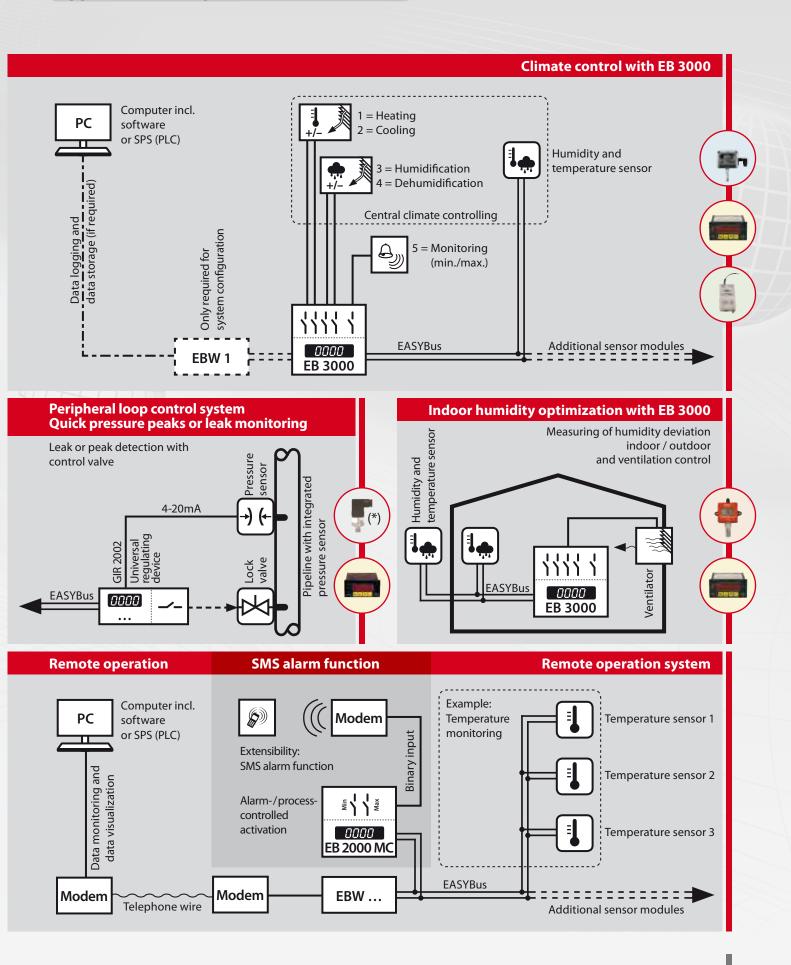




^{*} The exact number of lockable units is depending on the maximum bus load value.



Application examples



Sensor modules without value memory*

Temperature probe	probes made of stainless steel	EBT - IF 1 **	EBT - IF 2 **	EBT - IF 3 **
	Measuring range	-30.0 +100.0 °C	-30.0 +100.0 °C	-70.0 +400.0 °C
EDT. III.	Sensor / probe tube	Internal Pt1000-sensor / probe tube ø 6 mm		
EBT - IF 1 (without threat,	Type (measuring probe)	DIN Class B (higher	accuracy available)	To the second
adequate for clamp ring connection)	Accuracy	±0.2 % of meas. val	ue \pm 0.2 °C (at nominal	temperature = 25 °C)
	Operating temperature	-25.0 +70.0 °C (operating temperature of the electronics in sleeve)		
MY FDT IF 3	Cable sleeve	ø 15 x 35 mm (without screwing)		
EBT - IF 2 powered (with threat G½")	Process connection		threat G ½"	threat G ½"
(with threat G72)	Length (probe)	FL = 100 mm	FL = 100 mm	FL = 50 mm
EBT - IF 3	Length (collar tube)			HL = 100 mm
	Housing /design	stainless steel V4A (sealed)		
(with threat G½" and collar tube)	Bus load	1.5	1.5	1.5

Advantages:

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

Temperatu	re module		EBT - AP1 **	EBT - AP2 **	EBT - AP	3/4 **
NA	AP1 / AP2	Measuring range (standard)	-50.0 +150.0 °C	-50.0 +400.0 °C	-50.0	+150.0 °C
EASYBUS POWERED		Accuracy (temperature)	± 0.2 % of meas. value ± 0.2 °C (at nominal temperature = 25 °C)			= 25 °C)
powered	0 00	Electric connection	angular connector l	OIN 43650 (IP65)		
	SHOWING THE REAL PROPERTY AND ADDRESS OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS	Process connection	threat G ½"	threat G ½"	-	-
	Position of sensor tube	on the side	on the side	side	bottom	
	보	Length (probe)	FL = 100 mm	FL = 100 mm	FL=	FL=
0 00	<u> </u>				50 mm	100 mm
C manual property in		Length (neck tube)	-	HL = 50 mm		
	- L	Dimension (housing)	$82 \times 80 \times 55$ mm (L	\times W \times H)		
AP3		Bus load	1.5	1.5	1.5	X X
Advantages	→ AP4			\times	V W	

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

Temperat	ure module		EBT - 2R **	EBT - 2RE **
M		Temperature probe	integrated in housing	External sensor (V4A / ø 5×50 mm / 1 m)
EASYBUS powered	3 (5)	Sensor element	Temperature sensor Pt	1000 according DIN IEC 751
powered		Measuring range	-25.0 +70.0 °C	-50.0 +150.0 °C
	SOCI EASYM	Accuracy	±0.4 % of meas. value :	± 0.3 °C (at nominal temperature = 25 °C)
		Resolution	0.1 °C	
	External sens	Dimension	70 × 70 × 26 mm (L × V	V × H)
Advantages		Bus load	1.5	1.5

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

Humidity-/	temperature module		EBHT - 2R **
#20000377770000	Measuring range (standard)	0.0 100% RH / -25.0 +70.0 °C	
M	5 12 man	Accuracy humidity (standard)	±2,5 % RH (at range 30 80 % RH/ optionally at range 5 95 % RH)
EASYBUS powered		Accuracy temperature	± 0.4 % of meas. value \pm 0.3 °C (at nominal temperature = 25 °C)
VV pour	DCC EASYees	Resolution	0.1 % RH / 0.1 °C
	CERNONIE	Dimension	$70 \times 70 \times 26 \text{ mm (L} \times W \times H)$
Advantages		Bus load	1.5

- 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).



Sensor modules without value memory*

Humidity-/ temperature module



	EBHT - 1K **	EBHT - 1R **	EBT - 2K **	
Measuring range (standard	0.0 100 % RH. / -4	0.0 100 % RH. / -40.0 +120.0 °C		
Accuracy humidity (standard)	±2,5 % RH (at range 30	±2,5 % RH (at range 30 80 % RH/ optionally at range 5 95 % RH)		
Accuracy temperature	±0.4 % of meas. val	± 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)	$82 \times 80 \times 55 \text{ mm } (L \times W \times H)$			
Bus load	1.5	1.5	1.5	

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 **
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)	$82 \times 80 \times 55 \text{ mm } (L \times W \times H)$
Bus load	1

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**
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)
Bus load	2

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



ERNI / K	FBN / W

	EBN / K **	EBN / W **		
Measuring range	-1999 9999 Digit (scale fr	eely adjustable)		
Input signal **	0-2V/0-10V/0-20 mA/	0 - 2 V / 0 - 10 V / 0 - 20 mA / 4 - 20 mA (only one of these)		
Accuracy	± 0,5 % FS (at nominal temperatu	re = 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)			
Bus load	2	2		

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 40K **	EASYLOG 40KH **
	Design (sensor tube)	plastic, Ø 7×30 mm, attached on device	VA, Ø 5×50 mm, silicone cable 1 m
LAST	Measuring range	-25.0 +60.0 °C	-50.0 +150.0 °C
d 188 p	Accuracy	±0.5 °C (at nominal temperature= 2	5°C)
un-un-	Storage capacity	48 000 measuring values	
	Recording	interval from 2 sec to 5 h / recording ti	me: 500 days (if interval is 15 min)
-M-	Dimension (housing)	48.5 × 48.5 × 35.5 mm (L × W	/×H)
EASYLOg 40K	Bus load	2	2
powered	///		
6 years battery		EASY LOG 40KH-E300 **	EASY LOG 40KH-E600 **
6 years bau- lifetime in stand-alone mode	Design (sensor tube)	VA, Ø 3 × 100 mm, cable sleeve	VA, Ø 3 × 100 mm, cable sleeve
		glass silk cable 1 m	silicone cable 1 m

-50.0 ... +300.0 °C

 ± 0.5 °C $\pm 0.2\%$ of meas. value

48 000 measuring values

 $48.5 \times 48.5 \times 35.5 \text{ mm (L} \times W \times H)$

0 ... +600 °C

interval from 2 s to 5 h / recording time: 500 days (if interval is 15 min)

±1 °C ±0.2% of meas. value



Advantages:

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

Measuring range

Recording

Bus load

Accuracy (at nominal temp.) Storage capacity

Dimension (housing)

Humidity / temperature logger		EASYLOG 24RFT **	EASYLOG 24RFT-E **
	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	
G 3P3 D	Accuracy (humidity)	≤ ±3 % (at range 11 90 % RH)	
EASYBUS powered powers battery	Accuracy (temperature)	\pm 0.5 °C (at nominal temperature = 25 °C)	
	Storage capacity	48 000 measuring values	
	Recording	interval from 4 s to 5 h / recording time: 500 days (if interval is 15 min)	
	Dimension (housing)	48.5 × 48.5 × 35.5 mm (L × W × H)	
6 years battery Ilfetime in stand-alone mode	Bus load	2	2

EASYLog 24RFT | EASYLog 24RFT-E

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 **
	Design (sensor tube)	polyamide , Ø 15 mm, attached on device
SUPPRINCE	Measuring range	0.0 100 % RH / -25.0 +60.0 °C / 300.0 1100.0 hPa
CVRUS 399	Accuracy	± 2 % (humidity) / ± 0.3 °C ± 0.017 * (T - 25 °C) / ± 1.0 hPa (pressure)
S years battery lifetime in stand-alone mode	Storage capacity	250 000 values for each meas. variable (in max. 64 recording sequences)
	Recording	interval from 4 s 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)
	Bus load	2

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).



Sensor modules with value memory (logger function) *

Standard signal logger		EASYLOG 40NS W **	EASYLOG 40NS K **
M	Design (sensor tube)	angular connector (DIN 43650)	screwing and connection cable
EASYBUS nowered	Display range	-1999 9999 digit (scale freely adjustable)	
hattery	Decimal point	arbitrarily settable	
6 years battery Infetime in stand-alone mode	Input signal	0-2V/0-10V/0-20 mA/	4 - 20 mA (only one of these)
	Accuracy	± 0.5 % FS (at nominal temperature	e = 25 °C)
	Storage capacity	48 000 measuring values	HALLIT
55	Recording	interval from 2 s 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 40NS W EASYLOG 40NS K	Bus load	2	2

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		EASYLOG 40IMP/S **	EASYLOG 40IMP/T **
M	Design (sensor tube)	screwing and connection ca	able (0.5m, loose ends)
EASYBUS nowered	Resolution display/storage	1 digit	
	Input signal	passive volt-free switching contact	active TTL-signal
6 years battery lifetime in stand-alone mode	Accuracy	cycle time ± 50 ms	
	Measuring range	0 30 000 pulses/cycle	
	Storage capacity	48 000 measuring values	
	Recording	interval from 2 s to 5 h / recording tim	ne: 500 days (if interval is 15 min)
	Dimension (housing)	48.5 × 48.5 × 35.5 mm (L × V	$V \times H$)
	Bus load	2	2

Advantages:

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

State logger		EASYLOG 40BIN **
	Design (sensor tube)	screwing and connection cable (0.5m, loose ends)
EASYBUS POWERED	Resolution display/storage	1 digit
	Input signal	passive volt-free switching contact
Lettery	Display range	0 (on) / 1 (off)
6 years battery lifetime in lifetime in stand-alone mode	Measuring value	0 = contact open, 1 = contact closed
	Cycle	2 s to 5 h
d D	Storage capacity	48 000 measuring values
entition of	Recording	interval from 2 s 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)
	Bus load	2

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)
 - $\mbox{\ensuremath{^{\ast}}}$ More detailed product informations can be found in the Internet and in our catalogue.
- $\ensuremath{^{**}}$ 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 15min recording interval

Central data collection*

Display / regulating / monitoring



EASYBus-device	EB 3000
Input	EASYBus
	Max. 20 channels addressable / max. 30 bus loads
	Max. cable 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
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)
Bus load	EB-input: 1

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
Input	EASYBus
	Max. 9 channels addressable / max. 14 bus loads
	Max cable 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
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



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
Control mode	On/Off–control mode PID–control mode	
Measuring input	standard signal, Pt100, Pt1000, thermo	ocouple, frequency, flow rate, rotation
	speed, up-/down counter, serial inte	rface
Display / display range	4-digit LED display / -19999999 dig	it (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	n, min-/max-alarm
Interface	serial (electrically isolated), E	ASYBus 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 × E	0)
Bus load	1	

Advantages / Field of application:

- fast regulating and monitoring functions (reaction time < 25 ms 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
Measuring input	standard signal, Pt100, Pt1000, thermocouple or frequency
Display / display range	4-digit LED display / -19999999 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	$21.7 \pm 0.5 \text{ mm} \times 45.0 \pm 0.5 \text{ mm} (H \times W)$
Dimensions (housing)	24×48 mm (H \times W), installing depth approx. 65 mm
Bus load	1

Advantages / Field of application:

- fast regulating and monitoring functions (reaction time < 25 ms 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
Power supply	BUS powered	12Vpc/150mA	BUS powered	12Vpc/150mA
Relay outputs	2 change-ove	er contacts	4 change-ove	er contacts
Switching capacity	250 V AC / 16	A resistive load		
Switching reaction	< 1 s	< 0.1 s	< 2 s	< 0.1 s
Control	via EBUW 232	via EBUW 232 A or software EASYControl		
Bus load	2	1	2	1

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

Interface converter *

Remote enquiry system *

	EBW 1	EBW 3
Input	max. 9 bus loads	1 bus load
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)
	Allowed EASYBus–length Interfaces Power supply	Input max. 9 bus loads Allowed EASYBus–length 200 m Interfaces PC: RS232 / sensor: EASYBus Power supply 230 V AC, 50/60 Hz



EBW 64





	EBW 64	EBW 240
Input	max. 64 bus loads	max. 240 bus loads
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 enquir	y system components / alarm monitoring
Туре	Description
MODEM 2500	Analog hat-rail modem with password protection



- EASYBus remote enquiry via the analog telephone network as well as SMS-alerting
- can be used with: EBS 20M / EBS 60M, 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



- 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



- 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.



- 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



Software*

Configuration software

EASYBus-Configurator

gratis download

Description

Software for the comfortable configuration of EASYBUS-systemes with or without EB 3000

- Min.-/max.- value adjustment
- Clear presentation in tabular form
- Arrange the measuring points via drag and drop





Software

EASYControl net

Description

Software for long-termp monitoring, recording, displaying and documenting of EASYBus sensor modules.

- Simultaneous use of several serial interfaces
- Decentralized visualitsation on every computer on the network
- Display multiple graphs "live" in one chart
- Load ancient data an complete them with "live" data
- Visualisation: table, digital, tachometer, chart
- User accounts (with secured password transmission)
- Trigger EBB Out switching channels via EASYBus





Read-out and operating software

GSOFT 40K

Description

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 20M / EBS 60M

Description

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

- Simultaneous use of several serial interfaces
- Freely scaleable diagrams and alarm limits
- Visualisation: table, digital, chart
- Trusted data storage via SQL database





^{*} 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 hesitate to contact us. We will happily advise you!

If you are interested, we will be pleased to forward you the actual product catalogue.

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