Operating manual for
EBN / K - ...

CE

Specification:

Input signal, meas. range:	4.00 ... 20.00 mA (**EBN / K** - 4-20mA) 0.00 ... 20.00 mA (**EBN / K** - 0-20mA) 0.00 ... 2.00 Volt (**EBN / K** - 0-2V) 0.00 ... 10.00 Volt (**EBN / K** - 0-10V)
Input resistance:	Rs = 100 Ohm (4-20mA, 0-20mA) Ri > 300 kOhm (0-2V, 0-10V) *(input is not isolated from **EASYBus**)*
Display range	-1999 to 9999 digits, programmable (recommended display range: < 2000 digit)
Decimal point:	any position
Display unit:	programmable, a selection of more than 25 units is given in the software used.
Resolution:	1 digit
Accuracy:	± 0.5% (at nominal temperature)
Interface:	**EASYBus**
Connection:	via attached cable, 2-pole, approx. 1m lenght
Busload:	2 **EASYBus**-device´s
Nominal temperature:	25°C
Operating temperature:	-25 to +60°C
Storage temperature:	-30 to +85°C
Housing:	48.5 x 48.5 x 35.5 mm (L x W x D), (with angle-type plug 50,5 x 90 x 39,5 mm) ABS housing, transparent screen made of polycarbonate, splash-proof acc. to IP65
Electric connection:	(for input signals) via 0.5m connection cable
EMC:	The device conforms to EN 50 081-1 and EN 50 082-1 of the EMC-guidelines pursuant to the EMVG (Law regarding electromagnetic compatibility of devices).
Option ...-VO:	10 mm LCD-display

Required accessory:

The **EASYBus** interface is used to program the **EBN/K**. For this following accessory is required:
- Level converter: RS232 - **EASYBus** (e.g. EBW1, EBW64)
- connecting cable: level converter to **EBN**
- **EBxKonfig:** Software to configurate the **EBN** (display range, decimal point, display unit)

Configuration of the device:

The device can be configured via the software **EBxKonfig**.
With EBxKonfig the display range, -decimalpoint, -unit, -measuring and following configuration options can be edited:
- extended range: Error messages FE1 and FE2 are only displayed when the ranges are exceeded for more than 2%.
- FE1 off: Error message FE1 is suppressed, instead the maximum range is displayed
- FE2 off: Error message FE2 is suppressed, instead the minimum range is displayed

Furthermore the software displays the sensor data (type, serial number, address, etc.).
The alarm and the alarm delay (0...1092min.) can be changed, too.

Connection advice:

If more than one **EASYBus**-sensor modules are connected at the same **EASYBus**, the input signals of each **EASYBus**-sensor module (e.g. **EASYLog 40NS ...**, **EASYBu 40IMP**, **EBN**) has to be isolated from the others.

⚠ Safety advice:

This device has been designed, assembled and tested in accordance with the safety regulations for electronic measuring devices. However, its trouble-free operation and reliability cannot be guaranteed unless the standard safety measures and special safety advices regarding the device will be adhered to when using the device.

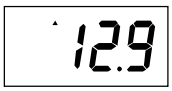
1. Trouble-free operation and reliability of the device can only be guaranteed if the device is not subjected to any other climatic conditions than those stated under ”Specification”.
2. Electric connection and commissioning of the device must be carried out by trained and skilled personnel. Wrong connection may lead to the destruction of the device.
3. Standard regulations for operation and safety for electrical, light and heavy current equipment have to be observed, with particular attention having to be paid to national safety regulations (e.g. VDE 0100).
4. When connecting the EBN to other devices (e.g. PC) the interconnection has to be designed most thoroughly as internal connections in third-party devices (e.g. connection GND with protective earth) may lead to undesired voltage potentials
5. If there is any risk whatsoever involved in running it, the device has to be switched off immediately and to be marked accordingly to avoid re-starting.
   Operator safety may be at risk if
   - there is visible damage done to the device
   - the device is not working as specified
   - the device has been stored under unsuitable conditions for a longer time.

   In case of doubt, please return device to manufacturer for repair or maintenance.
6. **Warning:** Do not use these product as safety or emergency stop devices, or in any other appli-cation where failure of the product could result in personal injury or material damage.
   Failure to comply with these instructions could result in death or serious injury and material damage.

VorOrt-Anzeige:

The **EBN** is optionally equipped with a 10 mm LCD display.

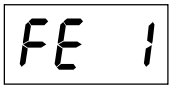
The main purpose of the LCD display is to indicate the measured values. Depending on the operating mode of the **EBN** other messages will be displayed as well.



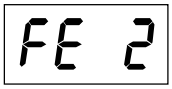
(Display of measuring value. Small arrow in left-hand corner flashing)
Measurements are carried out at certain intervals.

The measured value is below the min. alarm limit.

The measured value has exceeded the max. alarm limit.



The measured value has exceeded the measuring range of the logger.



The measured value has fallen below the measuring range of the logger.