



**PAULWEGENER**  
MESSTECHNIK SEIT 1921

**Operating manual**

Data acquisition system

**PWBlogg**



Device type: N7/100/C-Ex1

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Design and specifications are subject to change without notice.

## Contents

1	Safety instructions on installation, start-up, maintenance and troubleshooting	4
1.1	Installation and start-up	4
1.2	Maintenance	4
1.3	Fault clearance	4
2	Data acquisition system PWBlogg	5
2.1	Setting and function	5
2.2	Operating the device PWBlogg N7/100/C-Ex1	5
3	Battery	6
3.1	Battery check	6
3.2	Battery change	6
4	Technical specifications	6
4.1	Device	6
4.2	Explosion protection	7
4.3	EMC	7
5	Recycling of batteries and old appliances	7
6	Troubleshooting	7

# 1 Safety instructions on installation, start-up, maintenance and troubleshooting

## 1.1 Installation and start-up

The device PWBlogg N7/100/C-Ex1 is destined for intended use within gas explosion hazardous areas of hazard zone 1 only if there is the respective safety marking on the identification label. It is for displaying the current time.

Before installing the device within the hazard area, please check whether the ambient conditions meet the safety level of the data logger (ambient temperatures, gas group, temperature class etc.). The applicable installer and operating regulations must be observed.

The dedicated junction at the data logger's case must be used for integration into the potential equalisation of the unit or the system.

## 1.2 Maintenance

Maintenance jobs at the data logger restrict themselves to doing battery changes and cleaning.

The housing should simply be cleaned by a wet cloth to avoid electrostatic charge.

The devices are designed in such a way which facilitates safe battery change within Ex zone 1. Please note the following safety instructions when changing battery:

- Battery packs BP7.2N5-Ex1 supplied by manufacturer must EXCLUSIVELY be used. Using other batteries or battery packs voids the device's explosion protection.
- The battery pack is fixed inside the device by Velcro fastener. Make sure that the new battery pack is firmly fastened at its dedicated position.
- Do not rub or clean the battery pack using dry items. There is a danger of electrostatic charge.
- The battery pack used inside the device can be a danger of fire or burn in case of mishandling. Do not charge, open, heat over 100°C or incinerate it.
- Do not try to open the battery pack by force. It contains components which heat themselves to high levels due to a short circuit.
- If the battery connecting cable is visibly damaged, you must not use it anymore, but replace it by a new one. Please note that the cable is not caught when closing the device.
- Do not use pointed or sharp-edged tools when working to avoid damages to the electronics of the device.
- Do dispose of batteries promptly! Keep them out of reach of children! Do not open them or throw them into fire!



**Attention: The electronic system consists of electrostatic sensitive components. Pay attention to ESD operation instructions when handling with this electronics!**

## 1.3 Fault clearance

No modifications are allowed to devices which are designed for intended use in explosion hazardous areas. Repairing devices must only be done by purpose-trained specialists.

## 2 Data acquisition system PWBlogg

### 2.1 Setting and function

The battery-driven digital clock PWBlogg N7/100/C-Ex1 reduces the extensive functionality of the data acquisition system PWBlogg to displaying the current time on a 50 x 30 mm graphic display. The high running accuracy is ensured by the internal real time clock chip. The robust metal case with protection class IP65 protects the electronics of the device from adverse ambient conditions.

Device equipment:

- Powder-coated aluminium die-cast case 100 x 100 x 61, RAL 7038
- Case type of protection subject to DIN EN 60529: IP65
- Wall mounting and ground electrode
- Intrinsically battery pack BP7.2N5-Ex1 (7,2 V / 7200 mAh)
- Backup battery for keeping the time when changing battery
- Graphic display with keypad




### 2.2 Operating the device PWBlogg N7/100/C-Ex1

Function control is done by keypad and LCD. The different functions are arranged in a menu structure. The devices base state shows the time in format hours-minutes-seconds. The display can be changed into a bigger hour-minute format using the arrow key „left“. The arrow key „right“ changes the display to the date. Any view shows the battery state in the top left corner. The menu is reached by actuating the Enter key.

Selecting the symbols is done by arrow keys and „Enter“.



- The clock symbol leads to time setting. After confirming inquiry using F1, between adjusting time and date can be switched over by arrow keys. F1 and F4 (+/-) can decrease/increase the respective places.
- The monitor symbol facilitates adjusting the display.

-  Adjusting running time of the display in the steps „infinite, 10s, 20s, 30s, 1 min, 2 min, 5 min, 10 min, 20 min, 30 min, 1h, 2h, 4h, 6h.“
-  Adjusting running time of the display illumination in second steps from 1s up to 30s.
-  Adjusting display contrast from 20% up to 90%.

- Navigating between individual symbols can be done by the arrow keys F2 and F3. The values of the options can be changed by F1 and F4 (+/-).
- The battery symbol facilitates battery change which is initiated by F1 in the subsequent prompt. The battery will be adjusted to 100%.
- Any menu must be quitted by „Enter“. The Esc key cancels the change.

## 3 Battery

### 3.1 Battery check

The battery state is estimated by the firmware of the data logger. All activities of peripherals are taken into consideration, i.e. the periods in which the display is on. The activities are acquired and included to evaluation of battery capacity. **The influence of low temperatures to the available capacity of the battery pack can not be considered in respect of evaluation.**

The manufacturer gives an estimate of durability of the measurement system on request.

After falling below minimum voltage, power consumption will be reduced by deactivating the LCD and the data logger will be operated by energy-saving mode. If battery capacity falls below 10%, battery should be replaced. Recycling of used batteries/rechargeable batteries is described in the paragraph „Recycling of batteries and old appliances“.

### 3.2 Battery change

**We recommend, battery change should be done by manufacturer.** Please consider the following procedure if you want to change it by yourself.

- Use the battery pack type BP7.2N5-Ex1 EXCLUSIVELY! This battery pack is available from manufacturer of the data logger.
- Unscrew the four cross-head screws of the housing.
- Loose the pin-and-socket connector on the battery pack carefully and remove the old battery.
- Place the new battery in the battery tray and fit it with the dedicated Velcro fastener.
- Connect the battery with the pin-and socket connector of the data logger.
- Close the housing again without crimping the connecting cable inside.
- Confirm battery change (chapter 2.2).

#### *General information note on battery change*

Battery change should be done without loss of time when the back-up battery is intact. Replacing back-up battery can only be done by manufacturer!

## 4 Technical specifications

### 4.1 Device

Case	aluminium die-cast 100 x 100 x 61
Real time clock	deviation $\pm 3$ ppm ( $\Delta f/f_0$ ) from -15...60°C
LCD	128 x 64 pixel with LED background illumination, contrast, illumination and display duration adjustable
Power supply	battery-driven, 7,2 V lithium battery pack, intrinsically safe, BP7.2N5-Ex1, capacity 7200 mAh
Ambient temperature	-20...60°C
Storage temperature	-30...80°C

## 4.2 Explosion protection

Intrinsically safe ATEX II2G Ex ib IIB T4 Gb according to DIN EN 60079-0 and DIN EN 60079-11 for intended use within the gas explosion-hazard area of zone 1.

## 4.3 EMC

In accordance with EN 61000-6-3 (emitted interference in living quarters) and with EN 50081-2 (interference resistance in industrial field).

## 5 Recycling of batteries and old appliances

Used electric appliances, batteries and rechargeable batteries are subject to particular statutory provisions. Batteries, rechargeable batteries and electric appliances must not be disposed with the household waste. The end user is obligated to return them by the law. Used electric appliances, batteries and rechargeable batteries can be disposed at collecting points, municipal disposal areas or by manufacturer / supplier.

The Paul Wegener GmbH as seller of batteries and electric appliances fulfills its take-back obligation and disposes used batteries and old electric appliances free of charge.

This take-back obligation, however, limits itself to used electric appliances, batteries and rechargeable batteries which belong or belonged to the product range of the Paul Wegener GmbH and the amount which was delivered by the Paul Wegener GmbH.

The end user bears the forwarding charges.

## 6 Troubleshooting

<b>Problem</b>	<b>Measure</b>
Battery exhausted	Change battery or have it done by manufacturer.
Illumination does not switch on or just temporarily	Please check display settings and change if applicable.
Display duration too short	Please check display settings and change if applicable.

## EU-DECLARATION OF CONFORMITY

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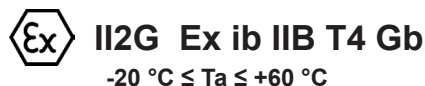
Herewith we declare that the data acquisition systems of type range

### PWBlogg N7/100/C-Ex1

comply with the directives **2014/30/EU** in reference to electromagnetic compatibility and **2014/34/EU** for devices and protective systems for dedicated use within explosion-hazard areas. The data acquisition system has been developed according to the following harmonised standards:

- EN 61000-6-3:2011-09** subject basic standard for emitted interference – emitted interference for living quarters, business- and trade sector as well as small firms
- EN 61000-6-2:2011-06** subject standard for interference resistance– industrial sector
- EN 60079-0:2019-09** electrical equipment for explosion-hazard areas, section 0: general requirements
- EN 60079-11:2012-06** potentially explosive atmosphere - section 11: equipment protection by intrinsic safety „i“

Marking as category 2 - equipment for use in explosion-hazard areas of the zone 1:



EC type-examination certificate:

**IBExU11ATEX1064**

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**The safety advice of the product documentation must be followed!**

Ballenstedt, 04.03.2022

A handwritten signature in black ink, appearing to read 'J. Wegener'.

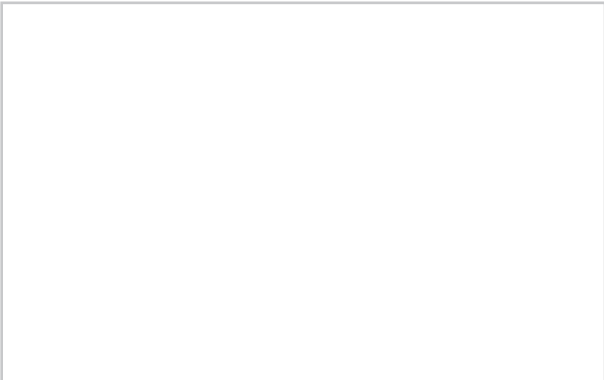
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