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**Note:**

The current operating instructions, EC Declaration of Conformity and the Ex-certificate are available for download from the relevant product page under ***www.ecom-ex.com***, or alternatively they can be requested directly from the manufacturer.

**1. Introduction**

The Ex-Time 40 and the Ex-Time 50 are quartz movement wall clocks designed for industrial application in areas with an increased risk of explosion in zones 1 and 2, in accordance with directive 1999/92/EC (ATEX 137).

**2. Safety Advice**

These Operating Instructions contain information and safety regulations which must be followed to ensure safe and reliable operation of the unit under the described conditions. Failure to follow the information and instructions contained in these Operating Instructions can have dangerous consequences or may violate applicable rules and regulations.

***Please take the time to carefully read through these Operating Instructions before you start using the unit.***

In the event of any doubt or discrepancies (e.g. due to errors in translation and/or printing), the original German language version of the Operating Instructions should be referred to.

**3. Faults and Damage**

If there is any reason to suspect that the safety or integrity of the unit has been compromised, then it must be taken out of operation immediately and removed from the Ex-zone without delay.

Precautionary measures must be taken in order to prevent any further use of the unit in the Ex-zone. It is recommended that the unit should be then sent to the manufacturer to be examined.

The safety and integrity of the unit may be compromised by, for example:

- External damage is evident on the housing.
- The unit has been subjected to excessive loads for which it is not designed.
- Incorrect storage of the unit.
- Damage sustained in transit.
- Correct certification is illegible.
- Functionality errors occur.
- Permitted tolerances or threshold values have been exceeded.

#### **4. Safety Regulations**

Use of this unit assumes that the operator observes conventional safety regulations and has read the certificate in order to eliminate faulty operation of the unit.

The following safety regulations must be complied with:

- The housing of the quartz mechanism and the battery compartment must not be opened within the Ex-zone.
- The battery must only be changed outside of the Ex-zone.
- Additional or spare batteries must not be carried in the Ex-zone.
- Only the "type-approved" batteries as listed in these Operating Instructions may be used.
- Ensure that Ex-Time 40 and 50 units are securely attached to the wall.
- It must be ensured that the clock does not accidentally fall into zone 0.
- The clock should only be cleaned with a damp cloth.

#### **5. Ex-Data**

EC Certificate of Conformity no.: PTB 02 ATEX 2197 X

Ex-Designation  II 2 G Ex ia IIC T4

Approved for areas classified as zones 2 and 1, device group II, Explosion group IIC potentially explosive gases, vapours or mist, temperature class T4



Report job identification no.: 3015562

FM identification: I.S. Class I Division 1 Group A-D T4

Intrinsically safe for use in a Class I, Division 1, Groups A, B, C & D with a Temperature Class of T4 hazardous (classified) locations.

## 6. Technical Data

Ambient temperature Ta:	0°C ... +50°C
Storage temperature:	0°C ... +50°C
Battery / power supply:	1 x LR14 acc. to IEC
Battery operating time:	approx 2 years
Accuracy of quartz mechanism:	+15/-5 seconds per month
Dimensions:	400 x 60 mm / 500 x 70 mm
Weight (incl. batteries):	2.5 kg / 3.5 kg
CE labelling:	CE 0102

### 6.1 Table with type-approved batteries

Manufacturer	Type
Varta	High Energy No.4914
Varta	Industrial Alkaline No.4014
Rayovac	Maximum Plus LR14
Duracell	Plus Alkaline MN1400
Duracell	Procell Alkaline MN1400
Panasonic	Powerline Industrial Alkaline LR14

## **7. Use and Application / Operating Instructions**

Before use, please read these operating instructions very carefully in order to familiarise yourself with the functions of the Ex-Time 40 / Ex-Time 50. For your own safety and information, please read the following instructions.

### **7.1 Commissioning**

Use an appropriate screwdriver to undo the two screws on the battery compartment cover (on the opposite side from the quartz mechanism). Remove the battery compartment cover and insert a battery of the correct type (LR14) (refer to the table under section 6.1 – Table with type-approved batteries ) into the battery compartment. Please refer to the diagram on the housing to make sure that battery is inserted with the correct polarity. Refit the battery compartment cover (the spring faces towards the battery), refit the battery compartment cover screws and tighten securely. Then use the white adjusting wheel on the housing of the clockwork mechanism in order to set the correct time.

### **7.2 Changing the battery**

To change the battery, use an appropriate screwdriver to undo the two screws on the battery compartment cover. Remove the battery compartment cover and dispose of the old battery.

Insert a new battery (only use type-approved batteries ‘ refer to the table under section 6.1 – Table with type-approved batteries; check for correct polarity ‘ check the diagram on the battery housing ). Refit the cover to the battery compartment (the spring faces towards the battery) and secure it with the two screws. The clock will now start to run again. Then use the white adjusting wheel on the housing of the quartz mechanism in order to set the correct time.

Please ensure that all used and defective batteries are properly disposed of in an environmentally friendly manner.

### **7.3 Wall Mounting**

An integral metal bracket located on the rear of the clock enables the Ex-Time 40 / Ex-Time 50 to be suitably mounted on an appropriate wall. The fixing of the unit must be secure at all times and precautionary measures must be taken to prevent the Ex-Time 40 / 50 from falling into an area classified as zone 0.

### **7.4 Time Setting**

The white adjusting wheel on the quartz mechanism is used to make any necessary time adjustments.

### **8. Repairs**

Repair work is subject to the nationally valid regulations and directives. We therefore recommend that such work be performed by ecom instruments GmbH, Germany, as all repairs must be examined to ensure functional safety.

### **9. Disposal**

Old electrical devices as well as „historical“ old electrical devices from ecom instruments GmbH are supplied for disposal at our expense and disposed of free of charge in accordance with European Directive 2002/96/EC and the German electrical law of 16/03/2005. The costs associated with returning devices to ecom instruments GmbH are to be borne by the sender.

### **10. Cleaning, Maintenance and Storage**

- The entire back face of the unit must only be cleaned with a damp cloth
- Do not use solvents or abrasive cleaning agents to clean the unit.
- The batteries should be taken out of the unit if it is to be out of use for a length of time.
- The storage temperature should be within the permitted range of 0°C to +50°C.

## **11. Guarantee and Liability**

As per the general terms and conditions of business, ecom instruments GmbH offers a 2-year warranty for the functioning and materials of this product under the specified operating and maintenance conditions. This does not cover all wearing parts (e.g. batteries and lamps).

This warranty does not extend to products that have been used improperly, altered, used negligently, damaged by accident or subjected to abnormal operating conditions or improper handling.

Warranty claims can be asserted by sending the defective device. We reserve the right to re-calibrate, repair or replace the device.

The above warranty terms represent the sole rights of the purchaser for compensation and apply exclusively and in place of all other contractual or statutory warranty obligations. ecom instruments GmbH does not accept liability for specific, direct, indirect, incidental or consequential damages or losses, including the loss of data, regardless of whether they are caused by breach of warranty, lawful or unlawful actions, actions in good faith or other actions.

If the restriction of statutory warranty and the exclusion or restriction of incidental or consequential damages is unlawful in certain countries, then it may be possible that the above restrictions and exclusions do not apply for all purchasers. If any clause in these warranty terms is found to be invalid or unenforceable by a competent court, then such a judgement shall not affect the validity or enforceability of any other clause contained in these warranty terms.

## **12. .EC-Declaration of conformity**

Further details relating to the declaration of conformity can be found at the following Website <http://www.ecom-ex.com> in the Products Download area.



### 13. EC Type Examination Certificate

#### Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

- (1) **EC-Type-Examination Certificate**
- (2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres – **Directive 94/9/EC**
- (3) EC-Type-Examination Certificate Number  
**PTB 02 ATEX 2197 X**
- (4) Device: Explosion-proof Wall Clock, type Ex-time \*\*
- (5) Manufacturer: ecom instruments GmbH
- (6) Address: Industriestrasse 2, 97959 Assamstadt, Germany
- (7) The design of this device and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.
- (8) The Physikalisch-Technische Bundesanstalt, notified body No. 0102 in accordance with Article 9 of the European Community Council Directive of March 23, 1994 (94/9/EC), certifies that this device has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the directive.
- The examination and test results are recorded in the confidential report PTB Ex 02-22330.
- (9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with  
**EN 50014:1997 + A1 + A2**                      **EN 50020: 1994**
- (10) If there is an "X" after the certificate number, special conditions for the safe use of the device are provided in the schedule to this certificate.
- (11) This EC-Type-Examination Certificate relates only to the design and examination of the specified device in accordance with Directive 94/9/EC. Further requirements of this directive apply to the manufacture and supply of the device. These requirements are not covered by this certificate.
- (12) The labeling of this device must include the following information:

(13) **S c h e d u l e**

(14) **EC-Type-Examination Certificate PTB 02 ATEX 2197 X**

(15) Device Description

The explosion-proof wall clock, type Ex-Time \*\* can be used in potentially explosive atmospheres.

The admissible ambient temperature range is 0°C - 50°C.

Electrical Data

Auxiliary power..... Battery 1.5 V model LR14 (see (17))

Feed circuit..... in ignition protection class for  
intrinsic safety EEx ia IIC

Maximum values:

U<sub>o</sub> = 1.5 V

I<sub>o</sub> = 866 mA

P<sub>o</sub> = 60 mW

for clockwork connection

(16) Examination Report PTB Ex 02-22330

(17) Special Conditions

Only use battery types that are listed in the operating instructions supplied with the device.

(18) Essential Safety and Health Requirements

are fulfilled in accordance with the above-mentioned directives

Certifying body for Explosion Protection

Braunschweig,

By the order of

Dr.-Ing. U. Johannsmeyer

Government Director

# Physikalisch-Technische Bundesanstalt

Baunschweig und Berlin

## 1st AMENDMENT

in accordance with directive 94/9/EC, appendix III number 6  
to EC type approval test certificate PTB 02 ATEX 2197 X

Device: Explosion-protected wall clock Ex-Time \*\*  
Designation:  II 2 G EEx ia IIC T4  
Manufacturer: ecom instruments GmbH  
Address: Industriestraße 2, 97959 Assamstadt, Germany

### Description of the amendments and alterations

The Ex-Time \*\* explosion-protected wall clock may be manufactured in the future in accordance with the test documents specified in the test report. The alterations concern the internal and external configuration. The electrical data, special conditions and all of the other details remain unaffected and are also applicable for this 1st amendment.

Applied standards EN 50020:2002

Test report: PTB Ex 06-26307

Certification body for explosion protection  
By order of

Braunschweig, 6th December 2006

Dr.-Ing. U. Johannsmeyer  
Director and professor

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EC type approval test certificates without a signature and seal are not valid.  
This EC type approval test certificate may only be circulated without alteration.  
Extracts or alterations are subject to approval by the Physikalisch-Technische Bundesanstalt.

# Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

## 2nd AMENDMENT

in accordance with directive 94/9/EC, appendix III number 6  
to EC type approval test certificate PTB 02 ATEX 2197 X

Device: Explosion-protected wall clock Ex-Time \*\*  
Designation:  II 2 G Ex ia IIC T4  
Manufacturer: ecom instruments GmbH  
Address: Industriestr. 2  
97959 Assamstadt, Germany

### Description of the amendments and alterations

The Ex-Time \*\* explosion-protected wall clock may be manufactured in the future in accordance with the test documents specified in the test report.  
The alterations concern the internal and external configuration.  
The electrical data, special conditions, instructions for manufacture and use, as well as all of the other information in the EC type approval test certificate remain unaffected.

### Applied standards

EN 60079-0:2006                      EN 60079-11:2007

Evaluation and test report:    PTB Ex 09-29066

Certification sector for explosion protection

Braunschweig, 9th October 2009

By order of

Dr.-Ing. U. Gerlach  
Senior executive office

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EC type approval test certificates without a signature and seal are not valid.  
This EC type approval test certificate may only be circulated without alteration.  
Extracts or alterations are subject to approval by the Physikalisch-Technische Bundesanstalt.

Physikalisch-Technische Bundesanstalt: Bundesallee 100 • 38116 Braunschweig • Germany

## 14. Certificate of Compliance



FM Approvals  
1151 Boston-Providence Turnpike  
P.O. Box 9102 Norwood, MA 02062 USA  
T: 781 762 4300 F: 781 762 9375 www.fmglobal.com

# CERTIFICATE OF COMPLIANCE

## HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT

This certificate is issued for the following equipment:

*Ex-TIME 40 and 50. Wall Clock*

IS / I / 1 / ABCD / T4, Ta = 50 °C

### Equipment Ratings:

Intrinsically safe for Class I Division 1, Groups A, B, C, and D T4 Ta = 50°C hazardous (classified) locations

### Approved for:

ecom instruments  
D-97959 Assamstadt, Germany



This certifies that the equipment described has been found to comply with the following FM Approval Standards and other documents:

Class 3600	1998
Class 3610	1999
Class 3810	1989

Original Project ID: 3015562

FM Approval Granted: November 13, 2002

Subsequent Revision Reports / Date FM Approval Amended

Report Number	Date	Report Number	Date
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FM Global Technologies LLC

Nicholas P. Ludlam  
Technical Team Manager

November 14, 2002  
Date

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