

**Instruction Manual**

**Ex-Time 40 / 50**

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## **1. Introduction**

The Ex-Time 40 and the Ex-Time 50 are quartz movement wall clocks designed for internal use in Ex-hazardous areas classified as Zone 1 and 2 according IEC/CENELEC or division 1 according to NEC.

## **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

The use of the Ex-Time 40 / 50 unit meets the requirements of the regulations providing that the user observes and applies the requirements as laid down in the regulations and that improper and incorrect use of the unit is avoided.


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.
- Precautionary measures must be taken to prevent the unit from falling into an area classified as zone 0.
- The entire back face of the unit must 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 EEx ia IIC T4


Approved for areas classified as zones 2 and 1, device group II, gas group C 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

#### 6. Technical Data

Ambient temperature Ta:	0 ... +50°C
Storage temperature:	0 ... +50°C
Battery / power supply:	1 x LR14 acc. to IEC; C
Battery operating time:	1 year
Accuracy of quartz mechanism:	+15/-5 seconds per month
Dimensions:	
(Ex-Time 40)	400 x 60 mm
(Ex-Time 50)	500 x 70 mm
Weight (incl. batteries):	
(Ex-Time 40)	2.0 kg
(Ex-Time 50)	3.4 kg
CE labelling:	 0102

**Table of type-approved LR 14 batteries**

Manufacturer	Type
Varta	Alkaline Electric Power No.8014
Varta	Alkaline Universal No.4014
Duracell	Alkaline
Duracell	Professional Alkaline Battery Procell
Duracell	Duracell Plus
Panasonic	Alkaline Industrial Battery
Ralston	LR 14 Energizer
GP	Super Alkaline Battery
Daimon	Alkaline

## **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 / 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 – technical data ) 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 – technical data; 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 / 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**

Repairs are subject to the terms and conditions of ELEX V. It is recommended that all repairs are carried out by the manufacturer, so as to check and test the safety and reliability of the unit after any repairs are performed.

### **9. 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. We recommend having the function and the accuracy of the device checked by the manufacturer every two years.

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.

### **10. Guarantee and Liability**

ecom instruments GmbH offers a 2-year warranty for function and materials on this product under the specified operating and maintenance conditions.

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

In the event of a warranty claim, the faulty device should be sent in. We reserve the right to readjust or repair the unit.

The above warranty terms represent the sole rights of the purchaser to 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 in certain countries the restriction of statutory warranty and the exclusion or restriction of incidental or subsequential damages is unlawful, then it may be possible that the above restrictions and exclusions do not apply for all purchasers. If any clause in these warranty terms should be 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.

### **11. Declaration of EC Conformity**

We

ecom Instruments GmbH

Industriestraße 2

D-97959 Assamstadt

declare under our sole responsibility that the product

Ex-Time 40 / Ex-Time 50

to which this declaration relates is in accordance with the provision of the following directives

94/9/EC                      Equipment and protective systems  
intended for use in potentially  
explosive atmospheres

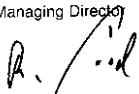
and is in conformity with the following standards or other normative documents

EN 50014:1997              Electrical apparatus for potentially  
explosive atmospheres  
General requirements

EN 50020:1994              Electrical apparatus for potentially explosive  
atmospheres Intrinsic safety "I"

ecom Instruments GmbH,  
Assamstadt, den 09.11.01

Rolf Nied  
Managing Director



12. EC Type Examination Certificate

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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

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- (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

### 13. 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:

Intensically 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 Assamtschl, Germany

Sommaire



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

  
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Nicholas P. Ludlam  
Technical Team Manager

November 14, 2002  
Date

At  FM Global Enterprise





***ecom instruments GmbH***

Industriestraße 2

D-97959 Assamstadt

Tel.: +49 (0) 62 94 / 42 24 0

Fax: +49 (0) 62 94 / 42 24 90

E-Mail: [sales@ecom-ex.com](mailto:sales@ecom-ex.com)

Internet: [www.ecom-ex.com](http://www.ecom-ex.com)