

Data Sheet

# Material Safety



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**CorDEX**



# MATERIAL SAFETY DATA SHEET

**ANSMANN**  
NiMH BATTERY

**RUGGED AUTHORITY**

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



# TECHNICAL NOTICE

The information contained within is provided as a service to our customers and Revision no: 3 for their information only. The information and recommendations set forth herein Revision date: 2013 - 08 - 08 are made in good faith and are believed to be accurate at the date of preparation.  
Editor: Ansmann AG ANSMANN AG makes no warranty expressed or implied.

## 1. Product and Supplier Identification

**Product Name:** Ansmann NiMH Battery  
**Type:** Sealed rechargeable nickel-metal-hydride battery  
**Models/Types:** Prismatic and round cells  
**Electrochemical System:** Nickel hydroxide (positive electrode)  
Metal hydroxide (negative electrode)  
Potassium hydroxide (electrolyte)

## Suppliers

**Germany Address:** ANSMANN AG  
Industriestraße 10; 97959 Assamstadt; Germany  
**Phone/Fax:** + 49 (0) 6294 42040 / + 49 (0) 6294 420444  
**Home/Email:** ansmann.de / info@ansmann.de

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**Email:** USA@ansmann.de

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**Email:** UK@ansmann.de

**Hong Kong Address:** ANSMANN Energy Int. LTD.  
Unit 3117-18, 31/F; Tower 1; Millenium City 1; No. 388 Kwun Tong Road; Kwun Tong, kowloon;  
Hong-Kong  
**Email:** hongkong@ansmann.de

**China Address:** HuiZhou City ANSMANN Trading Co. LTD  
Da Lian Industrial Park, Rengtu Village Ruhu Town Huicheng District, 516169 Huizhou City  
Guangdong, China  
**Email:** china@ansmann.de

**Sweden Address:** ANSMANN Nordic AB  
Victor Hasselblads Gata 11, 421 31 Västra Frölunda, Sweden  
**Email:** nordic@ansmann.de

**France Address:** Ansmann Energy France  
5, Place Copernic; Immeuble Boréal - Courcouronnes; F-91023 Evry Cedex; France

**EMERGENCY CONTACT:** For chemical emergency only (spill, leak, fire, exposure or accident) call CHEMTREC at:  
800-424-9300 within the USA and Canada  
+1 703-527-3887 outside the USA and Canada  
Non-emergency calls cannot be serviced at this number.

**2. Hazards Identification**

The rechargeable NiMH batteries described in this Product Safety Data Sheet are sealed units which are not hazardous when used according to the recommendations of the manufacturer and as long as their integrity is maintained.

Do not short circuit, puncture, incinerate, crush, force discharge or expose to temperatures above the declared operating temperature range of the product. Risk of fire or explosion.

Under normal conditions of use, the active materials and liquid electrolyte contained in the cells and batteries are not exposed to the outside, provided the battery integrity is maintained and seals remain intact. Risk of exposure only in case of abuse (mechanical, thermal, electrical) which leads to the opening of the valves and/or the rupture of the battery container. Electrolyte leakage or battery vent/explosion/fire may follow, depending upon the circumstances.

**3. Composition and Informations on Ingredients**

Each cell consists of a hermetically sealed metallic container containing a number of chemicals and materials of construction of which the following could potentially be hazardous upon release.

Ingredient	Content	CAS No.	ACGIH (TLV)	OSHA (PEL)
Nickel (Ni) (powder)	30 - 45%	7440-02-0	1 mg/m <sup>3</sup> TWA	1 mg/m <sup>3</sup> TWA
Nickel Hydroxide Ni(OH) <sub>2</sub>	20 - 30%	12054-48-7	1 mg/m <sup>3</sup> TWA	1 mg/m <sup>3</sup> TWA
Cobalt (Co)	1 - 5%	7440-48-4	0.1 mg/m <sup>3</sup> TWA (as Co)	0.1 mg/m <sup>3</sup> TWA (as Co)
Manganese (Mn)	1 - 3%	7439-96-5	0.2 mg/m <sup>3</sup> TWA (asMn)	5 mg/m <sup>3</sup> dust ceiling limit
Zinc (Zn)	< 3%	7440-66-6	10 mg/m <sup>3</sup> TWA total dust	15 mg/m <sup>3</sup> TWA total dust
Aluminum (Al)	0 - 2%	7429-90-50	10 mg/m <sup>3</sup> metal dust	15 mg/m <sup>3</sup> dust 5 mg/m <sup>3</sup> respirable fraction
Lanthanum (Ln)	< 10%	7439-91-0	none established	none established
Cerium (Cer)	< 10%	7440-45-1	none established	none established
Neodymium (Nd)	< 10%	7440-00-8	none established	none established
Potassium Hydroxide (KOH)	5 - 10%	1310-58-3	2 mg/m <sup>3</sup> ceiling limit	none established
Sodium Hydroxide (NaOH)	0 - 5%	1310-73-2	2 mg/m <sup>3</sup> ceiling limit	2 mg/m <sup>3</sup> TWA
Lithium Hydroxide (LiOH)	0 - 4%	1310-65-2	none established	none established
Stainless Steel (Fe)	15 - 30%	7439-89-6	none established	none established

#### 4. Composition and Informations on Ingredients

In case of accumulator breakage or burst, please evacuate employees from the contaminated area and ensure maximal ventilation in order to break-up corrosive gas, smoke and unpleasant odours. If it occurs, by accident, following measures must be taken:

<b>Inhalation:</b>	Provide fresh air. In severe cases obtain medical attention.
<b>Skin Contact:</b>	Wash off skin thoroughly with water. Remove contaminated clothing and wash before re-use. In severe cases obtain medical attention.
<b>Eye Contact:</b>	Irrigate thoroughly with water for at least 15 minutes. Lifting upper and lower lids, until no evidence of the chemical remains. Obtain medical attention.
<b>Ingestion:</b>	Wash out mouth thoroughly with water. Do not induce vomiting or give food or drink. Seek medical attention immediately.
<b>Further treatment:</b>	All cases of eye contamination, persistent skin irritation and casualties who have swallowed this substance or been affected by breathing its vapours should be seen by a doctor.

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#### 5. Fire Fighting Measures

If fire or explosion occurs when batteries are on charge, shut off power to charger.

In case of fire where nickel metal hydride batteries are present, apply a smothering agent such as METL-X, sand, dry ground dolomite, or soda ash, or flood the area with water. A smothering agent will extinguish burning nickel metal hydride batteries. Water may not extinguish burning batteries but will cool the adjacent batteries and control the spread of fire. Burning batteries will not burn themselves out. Virtually all fires involving nickel metal hydride batteries can be controlled with water. When water is used, however, hydrogen gas may evolve. In a confined space, hydrogen gas can form an explosive mixture. In this situation, smothering agents are recommended.

Fire fighters should wear self-contained breathing apparatus. Burning nickel metal hydride batteries can produce toxic fumes including oxides of nickel, cobalt, aluminum, lanthanum, cerium and neodymium.

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#### 6. Accidental Release Measures

Remove personnel from area until fumes dissipate. Do not breathe vapours or touch liquid with bare hands. Provide sufficient room ventilation if required.

If the skin has come into contact with the electrolyte, it should be washed thoroughly with water.

Use neoprene or natural rubber gloves and protective glasses, if handling an open or leaking battery. Battery materials should be collected in a leak-proof container and disposed of as Special Waste. in accordance with local regulations.

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#### 7. Precautions for safe Handling and Use

**Storage:** Store in a cool (preferable below 25°C), well ventilated area, away from moisture, sources of heat, and open flames. Elevated temperatures can result in shortened battery life. Temperatures above 70°C may result in battery leakage and rupture. Keep adequate clearance between walls and batteries. Since short circuit can cause burn, leakage and rupture hazard, keep batteries in original packaging until use and do not jumble them.

<b>Handling:</b>	Do not crush, pierce, short (+) and (-) battery terminals with conductive (i.e. metal) goods, which would end up into excessive heating. Do not directly heat or solder. Do not throw into fire. Do not mix batteries of different types and brands. Do not mix new and used batteries. Keep batteries in non conductive (i.e. plastic) trays. Do not disassemble, mutilate or mechanically abuse cells and batteries. In order to prevent seal or safety vent damage, never solder the batteries directly at the battery terminals.
<b>Charging:</b>	This battery is made to be charged many times. Use only specified charger. Follow manufacturer data in respect of charge current and charge time. Note correct polarity. Improper charging can cause heat damage or even high pressure rupture.
<b>Disposal:</b>	Dispose in accordance with all applicable federal, state and local regulations.

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## 8. Special Protection Information

<b>Ventilation Requirements:</b>	Not necessary under normal conditions. Room ventilation may be required in areas where there are open or leaking batteries.
<b>Respiratory Protection:</b>	Not necessary under normal conditions. Avoid exposure to electrolyte fumes from open or leaking battery. In all fire situations use self-contained breathing apparatus.
<b>Eye Protection:</b>	Not necessary under normal conditions. Wear safety glasses with side shields if handling an open or leaking battery.
<b>Hand Protection:</b>	Not necessary under normal conditions. Use neoprene or natural rubber gloves if handling an open or leaking battery

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## 9. Physical and Chemical Properties

**Note:** The following points are not applicable unless in case of leaking or damaged batteries with exposed internal components.

<b>Appearance:</b>	Nickel plated steel cylindrical cell, eventually sleeved.
<b>Odour:</b>	Odourless (unless in case of damaged product with leaking electrolyte)
<b>Flashpoint:</b>	Not applicable
<b>Flammability:</b>	Not applicable
<b>Relative density:</b>	> 2 g/cm <sup>3</sup>
<b>Specific energy:</b>	30...90Wh/kg
<b>Temperature range:</b>	Usage recommended between -40°C and +70°C.

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## 10. Stability and Reactivity

Product is stable under conditions described in Section 7.

**Conditions to avoid:** Heat above 70° or incinerate. Deform. Mutilate. Crush. Pierce. Disassemble. Short circuit. Expose over a long period to humid conditions.

**Materials to avoid:** Strong mineral acids, alkali solutions, strong oxidising materials and conductive materials.

**Hazardous decomposition products:**

Electrolyte solution is corrosive to all human tissues and will react violently with many organic chemicals. Electrolyte solution reacts with zinc, aluminum, tin and other materials releasing flammable hydrogen gas.

**11. Toxicological Information**

Nickel metal hydride batteries are not hazardous waste. Under normal conditions of use, Ni-MH batteries are non-toxic. In case of can opening or destruction, the following substances can be released:

Substances			Hazards		
Name	N° EC N° CAS N° EINEC	Symbol	Effects	Dust exposure limits	Carcinogenicity mutagenicity protoxicity
Nickel	028-002-00-7 7440-02-0 231-111-4	Ni	Xn	Nocif	R 40-43 R 17
Nickel-Hydroxyde	028-008-x* 12054-48-7 235-008-5	Ni(OH) <sup>2</sup>	LD50/oral/rat: 1600mg/kg	VME: 1000µg/m <sup>3</sup>	Occupational
Cobalt-Hydroxyde	- 21041-93-0 244-166-4	Co(OH) <sup>2</sup>	LD50/oral/rat: 795mg/kg	VME: 100µg/m <sup>3</sup> VLE: /	/
Alkaline-Hydroxydes	019-002-00-8 1310-58-3	KOH NaOH LiOH	LD50/oral/rat: 365mg/kg	KOH VME: 2mg/m <sup>3</sup> NaOH VME: 2mg/m <sup>3</sup> LiOH VME: 25µg/m <sup>3</sup>	/

**12. Ecological Information**

The sealed NiMH cells as a product are not presenting ecotoxicological hazards. In case of product destruction or opening, the substances described in paragraph 11 can come in contact of the environment. The metals content in a NiMH battery are toxic for the environment.

If not recycled, it must be disposed of in accordance with all state and local regulations.

### 13. Disposal Considerations

USA: NiMH batteries are classified by the federal government as non-hazardous waste and are safe for disposal in the normal municipal waste stream. These batteries, however, do contain recyclable materials and are accepted for recycling by the Rechargeable Battery Recycling Corporation's (RPBC) Battery Recycling Program. Please go to the RPBC website at [www.rbrc.org](http://www.rbrc.org) ( [www.call2recycle.org](http://www.call2recycle.org)) for additional information.

In the European Union, manufacturing, handling and disposal of batteries is regulated on the basis of the DIRECTIVE 2006/66/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 6 September 2006 on

batteries and accumulators and waste batteries and accumulators and repealing Directive 91/157/EEC. Customers find detailed information on disposal in their specific countries using the web site of the European Portable Batteries Association ([http://www.epbaeurope.net/legislation\\_national.html](http://www.epbaeurope.net/legislation_national.html))

Importers and users outside EU should consider the local laws and rules.

In order to avoid short circuit and heating, used nickel metal hydride cylindrical cells and batteries should never be stored or transported in bulk. Proper measures against short circuit are:

- Storage of batteries in their original packaging
- Coverage of the terminals

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### 14. Transport Information

Ansmann nickel metal hydride cylindrical cells/batteries are considered to be "dry cell" batteries and are unregulated of transportation by the U.S. Department of Transportation (DOT), International Civic Aviation Administration (ICAO), International Air Transport Association (IATA), the "Accord Européen Relatif au Transport International des Marchandises Dangereuses par Route" (ADR) and the "Règlement concernant le transport international ferroviaire de marchandises Dangereuses" (RID).

IATA DGR: Special Provision A123: "Examples of such batteries are: alkali-manganese, zinc-carbon, nickelmetal hydride and nickel-cadmium batteries. Any electrical battery... having the potential of a dangerous evolution of heat must be prepared for transport as to prevent (a) a short-circuit (e.g. in the case of batteries, by the effective insulation of exposed terminals...) is forbidden from transport; and (b) accidental activation.

The words "Not restricted" and the Special Provision number must be included in the description of the substance on the Air Waybill as required by 8.2.6, when an Air Waybill is issued. EU (ADR/RID): Chapter 3.2 Table A: "Batteries, nickel-metal-hydride, UN3496, not subject to ADR" USA: 49 CFR § 172.102 Special Provisions 130 and 340: Nickel metal hydride cylindrical cells/batteries are not subject to requirements of this subchapter except for the following...."Batteries and battery-powered devices containing batteries must be prepared and packaged for transport in a manner to prevent: (1) A dangerous evolution of heat; (2) Short circuits, including but not limited to the following methods:

- a) Packaging each battery or each battery-powered device when practicable, in fully enclosed inner packagings made of non-conductive material
- b) Separating or packaging batteries in a manner to prevent contact with other batteries, devices or conductive materials (e.g. metal) in the packagings"...

International Maritime Organization (IMO), IMDG Code: Regulated as "Batteries, nickel-metal hydride, UN 3496", Special Provision 963: "...nickel-metal hydride cells or batteries shall be securely packed and protected from short-circuit. They are not subject to other provisions of this Code provided that they are loaded in a cargo transport unit in a total quantity of less than 100kg gross mass. When loaded in a cargo transport unit in a total quantity of 100kg gross mass or more, they are not subject to other provisions of this Code except those of 5.4.1, 5.4.3 and column (16) of the dangerous goods list in Chapter 3.2."



# USER MANUAL

**TOUGHPIX II**  
EXPLOSION PROOF  
DIGITAL CAMERA



**Congratulations** – You are the owner of the second generation of **ToughPIX digital camera** designed and certified specifically for use in **hazardous (explosive) atmospheres**.



**ToughPIX II is certified ATEX/IECEx as follows:**

- Ex d IIB+H2 T6 Gb / II2G Gb T6



Please ensure that the certification matches or exceeds the hazardous area characteristics that will be clearly displayed on site.



Whilst in a hazardous area, do not attempt to change batteries or download images, these tasks should only be undertaken after returning to a safe area.

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# GETTING TO KNOW YOUR TC7000



- 1** Shutter Button
- 2** Power Button
- 3** Flash Light
- 4** Lens

- 1** LCD Screen
- 2** Left/Scene
- 3** Playback
- 4** Mode
- 5** Menu Button
- 6** Down/Self Time
- 7** Up/Delete
- 8** Right/Flash
- 9** W/T (Zoom in/Zoom out)

# CAMERA CHARGING /DOCKING STATION

# OVERVIEW

The SLR style ToughPIX II incorporates a 16 Megapixel sensor with 16GB memory and High Definition video capability. Close up and wide area photography is simple with crisp and clear images using the built-in macro feature, anti-shake technology, 3x optical and 4x digital zoom.

# PACKAGE CONTENTS

Check the contents of your ToughPIX II. The shipping case should include the following items:

- Explosion proof digital camera
- USB Communication Wand
- Docking / Charging Station
- CorDEX CONNECT™ Software
- Removable / Rechargeable Battery
- Neck Strap
- Hard Carry Case



**1** \_\_\_\_\_  
Data communication interface

**2** \_\_\_\_\_  
USB Terminal

**3** \_\_\_\_\_  
Power Supply for charging unit

**4** \_\_\_\_\_  
Battery recharging compartment

**5** \_\_\_\_\_  
Battery release lever



## BATTERY CHARGING

The battery is charged using the docking station supplied (See Page 6).

- Open the battery compartment of the camera and remove the retaining plug.
- Remove the battery from the battery compartment of the camera.
- Plug in the charging unit to a mains circuit and plug the jack from the charging unit into the docking station.
- Insert the battery into the battery charging compartment on the docking station.
- The charging light on the charging unit will flash green to show that the battery is charging.
- When the battery is fully charged the charging unit light will stop flashing and will show constant green.
- Remove the battery from the charging compartment
- Insert the battery pack into the camera paying careful attention to the orientation of the pack.
- Insert the retaining plug and ensure that this is tightly secured.







Battery charging must only be carried out in a safe area using the docking/charging station supplied. Never open the battery compartment or attempt to download data within a hazardous environment.

## GETTING STARTED

### Turning the Power On/Off

Use the power button on the top of the camera to turn the camera on and off. If there is insufficient battery power a red icon will appear on the display and the camera will automatically power off after a few seconds. Press the shutter button to take a photo.

### Mode Selection

ToughPIX II has three operating modes, Camera  Video  and Playback.  Camera mode is the default from Power On and pressing the **MODE** button will toggle between Camera and Video mode. Press the Playback button  to review photos and videos.

# TAKING PICTURES

## Optical Zoom

You can magnify your subject up to 3 times using the optical zoom by pressing the **T** and **W** buttons to zoom in and out.

## Digital Zoom

You can magnify your subject up to 4 times further using the digital zoom by pressing the **T** and **W** buttons to zoom in and out. An icon in the display will show whether you are using optical or digital zoom.

## Flash

In low light conditions it is recommended to use the built-in flash. Use the **flash/right** button to toggle through the four flash modes:



Force flash

AUTO Auto



Red eye reduction



No flash

## Scene

Scene is selected using the **left** button and toggles through several setting options: Auto, Night Portrait, Night Scenery, Portrait, Scenery, Beach, Sport, High Sensitivity.

## Self-timer

Self timer is selected using the **down** button to toggle through 4 self-timer options: 2 sec, 5 sec, 10 sec or Off.

## Delete

Press the up button to delete the last photo or video captured. A “Delete This Image” confirmation message will appear in the display, use the **left/right** buttons to choose yes to delete the image or no to cancel the delete.




## Image Size

To set the image size, press **MENU** and use the **right/left** button to select the **MP** icon. The image size menu will appear in the display and the **up/down** buttons will select the required image size.

## Anti-Shake

This function prevents blurring of the photo as a result of hand shake. It is accessed through the **MENU** button and using the **right/left** button to select the Hand icon.

## Macro

The macro or close-up function enables clear photos to be taken within a distance of 15cm to 45cm from the subject. Press the **MENU** button and use the **right/left** button to select the macro icon . The macro menu will appear in the display and the **up/down** button will toggle the macro  and distance  function on and off.

## Setup

You can adjust the many camera setup options by pressing the **MENU** button and using the **right/left** button to select the **TOOL** icon. The setup menu on the display enables adjustment of: Exposure, ISO, White Balance, Sharpness, Quality, Digital Zoom, Date, Beep Sound, Auto Power Off, Language, Frequency, Format, Default Setting.

## TAKING VIDEOS

Press the **MODE** button to select video mode

✱ Press and release the shutter button to start recording. The elapsed time will appear on the top right of the display and the recording icon will flash. Press the shutter button again to stop the recording and save the file in AVI format. Use the playback mode ► to view your recording.

## DOWNLOADING FILES

Photo and video file can only be downloaded using the docking/charging station supplied. These files may then be transferred to any PC with a USB connection.

- Connect one end of the USB cable to an available USB port on your computer
- Connect the other end of the USB cable to the USB terminal on the docking station
- Remove the battery pack from the camera (see page 8) and gently place the camera onto the Data Communication Interface on the docking station

### Windows Users

- From the Windows desktop, double click on My Computer.
- Look for a new 'removable disk' icon. This 'removable disk' is actually the memory (or memory card) in your camera. (Typically, the camera will be assigned drive letter 'e' or higher)
- Double click on the removable disk and locate the DCIM folder.
- Double click on the DCIM folder to open it to find more folders. Your recorded images and video clips will be inside these folders.
- Copy & Paste or Drag-N-Drop image and video files to a folder on your computer.

### Mac Users

- Double-click the 'untitled' or 'unlabeled' disk drive icon on your desktop.
- iPhoto may automatically launch

Certificate Information	
ATEX / IECEx Certificate No	TRAC13ATEX0046X / IECEx TRC 13.0016x
ATEX / IECEx Certificate Type	Ex d IIB+H2 T6 Gb / II2G Gb T6
Ambient temperature	Tamb -20C to +50C

General Information	
Image download	High Speed USB (safe area only)
Image storage	16GB
Standard image capture resolution	16 Megapixel
Zoom	3 x optical, 4 x digital zoom
Screen size	2.7 inches
Additional features	Anti shake, auto focus, macro, face recognition
Tripod mount	¼ inch 20 TPI

Detailed information	
Body material	Anodised aluminium with anti-static over mould
Lens & LCD material	Armoured Glass
Weight	900g
IP	54

Electrical information	
Battery type	Removable & Rechargeable
Capacity	1100mAh
Cell type	NiMH





# INSTRUCTIONS FOR SAFE OPERATIONS

## TOUGHPIX II EXPLOSION PROOF DIGITAL CAMERA



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# READ THIS FIRST

The ToughPIX II 24xx range of flameproof digital cameras are suitable for use in hazardous areas (Ex zones: potentially explosive environments).

Read and understand all Warnings and Cautions before using this product.

## Liability

The technical specification of the camera complies with relevant European Ex standards (EN 60079-0 and EN60079-1).

The user is solely responsible for ensuring the equipment is suitable for the intended purpose and environments.

CorDEX Instruments will not be liable for any injury or damage resulting from unauthorized adjustments to, or dismantling of, the camera or for use with inappropriate applications or environments.

## Trademark Information

Microsoft® and Windows® are U.S. registered trademarks of Microsoft Corporation. Pentium® is a registered trademark of Intel Corporation.

Macintosh is a trademark of Apple Computer, Inc. SD™ is a trademark.

Other names and products may be trademarks or registered trademarks of their respective owners.

## Product Information

Product design and specifications are subject to change without notice. This includes primary specifications, software, software drivers, and user's manual. The User Manual is a general reference guide for the product.

The manufacturer assumes no liability for any errors or discrepancies in the user manual.

# INSTRUCTIONS FOR SAFE USE

The conditions referenced in this section relate specifically to hazardous area applications and must be followed.

In accordance with clause 5.1 of EN 60079-1, the critical dimensions of the flamepaths are:

Flamepath	Maximum Gap (mm)	Minimum L (mm)
Rearcarriage/ front carriage	0.04	6.5
Flash Window/ frontcarriage	0.1	13.8
LCDWindow/ frontcarriage	0.1	13.8
Lens window/ frontcarriage	0.1	13.8
Operatingrod/ rear and	0.1	10.5


- Contact the manufacturer for information on the dimensions of the flameproof joint
- The apparatus must only be used in areas where there is low risk of impac
- Do not charge battery pack in the hazardous are
- The battery must be removed from the camera and charged in the CorDEX Instruments ToughPIX II charging bay part number CDX-2400-XXX. Using a different charging device will void the certification.

- The ToughPIX II 2410 Series digital camera incorporates a protected battery system with a non-replaceable fuse. This fuse is only to be replaced by CorDEX Instruments or a CorDEX Instruments Approved Repair Facility. Failure to do so will void the certification.
- Ensure that the ToughPIX II 2410 Series digital camera battery pack is secured using the plug provided. If the plug is lost, only replace with a plug of the correct size and type. If in doubt, contact your nearest CorDEX Instruments representative.
- The ToughPIX II 2410 Series digital camera is manufactured from aluminium alloy; and must contain less than 7% magnesium by weight and incorporates toughened glass windows. This should be taken into account when considering the end use application.
- TheToughPIX II 2410 Series digital camera cannot be maintained in the field andmust be returned to the manufacturer should repair or maintenance be required.
- USB communications with the ToughPIX II 2410 Series digital camera must only occur within the non-hazardous area
- When replacing the battery pack, the screw must be re-tightened to a torque of 1.5-4Nm and the cover cap replaced.
- Only CorDEX battery pack CDX2400-011 shall be use


# LABELLING

CorDEX Instruments Ltd. 1 Owens Rd, Middlesbrough, TS6 6HE, UK

TP2410 – Explosionproof Digital Camera



II 2 G

XXXX

Ex d IIB+H2 T6 GbTamb -20°C to +50°C  
 ATEX -TRAC13ATEX0046X  
 IECEX :IECEX TRC 13.0016X  
 Serial Number- XXXX-XX-XXXX  
 Year of Construction- YYYY

Powered by – Refer to Manual

**DO NOT OPEN WHEN EXPLOSIVE ATMOSPHERE PRESENT**



# OPERATIONAL CAUTIONS



The cautions contained in this section do not relate specifically to safe use in hazardous area applications but should be followed to help prevent damage to the device or personnel.

- Keep out of reach of children
- The TP2410 is a precision instrument. Do not drop it, strike it or use excessive force when handling

### Maintenance

For safety critical maintenance, please refer to EN60079-17

# CERTIFICATION

Model	TP2410
ATEX Certificate No.	TRAC13ATEX0046X
ATEX Coding	 XXXX   IIB+H2 T6 Gb Tamb -20°C to +50°C
Ambient Temperature	-20° to +50°C
Power Supply	ToughPIX II 2410 Series Removable Rechargeable Battery Pack, part number CDX-2410-011

# EC DECLARATION OF CONFORMITY

**CorDEX**

CorDEX Instruments Ltd  
Unit 1, Owens Road  
Skippers Lane Industrial  
Estate,  
MIDDLESBROUGH,  
TS6 6HE

Declaration No. SO/11 Rev 3

**EC Declaration of Conformity  
in accordance with EEC ATEX Directive 94/9/EC**

We,

**CorDEX Instruments Ltd.**

Hereby declare that the products described below

Product: Explosion-proof digital camera  
Model: TP2410XP

are in conformity with the essential health and safety requirements of Council Directive 94/9/EC relating to equipment intended for use in potentially explosive atmospheres (ATEX Directive) Ex II 2 G, Ex d IIB+H2 T6 Gb(Tamb -20°C to +50°C) equipment, by the application of the following Standards:-

BS EN 60079-0:2012 Explosive atmospheres - Equipment. General requirements

BS EN 60079-1:2007 Explosive atmospheres. Equipment protection by flameproof enclosures "d"

as certified by Notified Body Number 0891 TRaC Global Ltd, UK by EC-Type Examination Certificate: TRAC13ATEX0046X and IECEx Certificate: IECEx TRC 13.0016X and are subject to the procedure set out in Annex VII of Directive 94/9/EC and these procedures are in conformity with the requirements of EN 80079-34 under the supervision of Notified Body Number 0518, SIRA Certification Service, Rake Lane, Ecclestone, Chester, CH4 9JN, England.

It is ensured through internal measures that the products conform at all times to the requirements of the current EEC Directives and relevant standards.

Signature:  Authorised Person

Position: Director on behalf of CorDEX Instruments Ltd

Date: 07/10/2014

Product Serial number

Better:Better\_Work:CorDEX:03\_CorDEX\_Products:CorDEX\_Products\_ToughPIXII:CorDEX\_Products\_ToughPIXII\_ECDeclaration:EC Declaration of Conformity (TP2410XP)Rev A.docx

# IECEx Certificate?

