



## Operating Manual

iLOG100

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Document Number **317820** (See Last Page for Revision Details)

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# 1 Introduction

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The iLOG100 is an intrinsically safe battery powered GSM data logger and remote telemetry unit. The iLOG100 is capable of reading, logging and remote recording of a number of different types of external signals.

The unit is explosion protected in accordance with EN50020 and EN60079-14, the device is certified as **II 2 G EEx Ib [ia] IIC T4 / T3**. It can operate in areas classified as Zone 1, gas group IIC and temperature class T4 with a maximum ambient temperature of 45°C.

**The minimum permissible ambient temperature for T3 and T4 is -20°C**  
**The maximum permissible ambient temperature for T4 is 45°C**  
**The maximum permissible ambient temperature for T3 is 50°C**

The iLOG100 is battery powered by an intrinsically safe battery pack.

The ILOG100 has two analogue inputs which can be configured as either current (4-20mA) or voltage inputs, the unit also has three digital inputs, all of these inputs are certified as [ia] allowing the connection of suitable certified Ex ia equipment to the ILOG100.

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## 2 Safety Information and Notes

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### 2.1 Storage of this Manual

Keep this user manual safe. All persons who have to work on or with the ILOG100 should be advised on where the manual is stored.

### 2.2 Essential health and safety requirements

This equipment is designed to satisfy clause 1.2.7 of the Essential Health and Safety Requirement ANNEX II of directive 94/9/EC.

### 2.3 List of Notes

The notes supplied in this chapter provide information on the following.

- Danger / Warning.
  - Possible hazard to life or health.
- Caution
  - Possible damage to property.
- Important
  - Possible damage to equipment.
- Information
  - Notes on the optimum use of the device

<b>Warning!</b>	<b>The ILOG100 external plastic case is a static hazard and should only be cleaned with a damp cloth.</b>
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<b>Warning!</b>	<b>The ILOG100 can be used with an 18 cell external battery pack which have been certified for use. This battery pack has the part number iLOG100-EB18. This battery pack can be mounted and connected in a Zone 1 hazardous area. Replacement battery packs should only be of the same type supplied by Extronics.</b>
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<b>Important</b>	<b>Ensure that the terminals to the Battery Pack are not shorted as this could cause damage.</b>
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<b>Warning!</b>	<b>Please ensure that any device which is connected to the ILOG100 meets the safety parameters outlined in this manual. Please ensure that any cable between the ILOG100 and connected devices is taken into account when performing intrinsic safety verification.</b>
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<b>Important</b>	<b>The ILOG100 RS232 port is intrinsically safe. RS232 devices which are not intrinsically safe can only be connected to the ILOG100 ether via an appropriate safety barrier or via the Extronics transient suppressor, part number A00-0041. The transient suppressor is <u>NOT</u> a barrier and should only be used with the ILOG100 when <u>BOTH</u> units are located in the safe area.</b>
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**Important** The factory modem debug port is intrinsically safe. Debugging devices which are not intrinsically safe can only be connected to the ILOG100 ether via a barrier or via the Extronics transient suppressor, part number A000-0042. The transient suppressor is NOT a barrier and should only be used with the ILOG100 when BOTH units are located in the safe area.

**Important** Please ensure devices which are connected to the ILOG100 are made in accordance with the instructions given within this manual.

## **3 Fixing and Installation**

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The information in the section details how to the ILOG100 should be installed

### **3.1 Fitting the ILOG100**

The ILOG100 can be mounted direct to wall or surface using the two fixing holes on the back of the unit.

### **3.2 Protection Class**

The ILOG100 conforms to the ingress protection of IP68.

### **3.3 Temperature ranges**

The ILOG100 can be operated in the temperature range -20°C to +45°C.

### **3.4 Cabling**

Cable assemblies used with the ILOG100 must comply with the creepage and clearance requirements of EN50020:2002.

Please ensure when making cable assemblies that care is taken whilst soldering wires.

Complete cable assemblies are available from Extronics.

## 4 Terminal Assignment

The intrinsic safety parameters shown in the ATEX certificate must be observed at all times when connecting devices to the ILOG100. Safety parameters of connected devices must be verified by the user as being safe before connection to the ILOG100. Please also ensure that any cable between the ILOG100 and connected devices is taken into account when performing intrinsic safety verifications.

### 4.1 Power Supply

#### 4.1.1 18 Cell External Battery Pack

The ILOG100 is connected to an 18 cell external battery pack, part number iLOG100-EB18

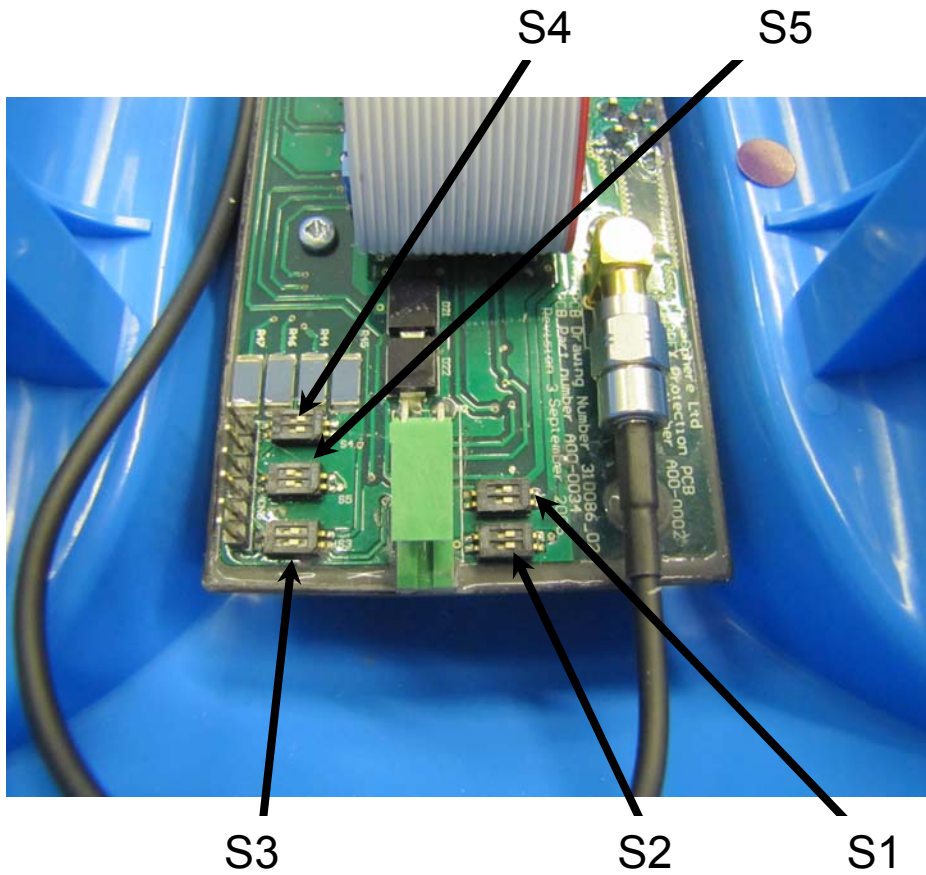


18 Cell External Battery Pack Safety Parameters		
Voltage	U <sub>i</sub>	9.9V DC
Current	i <sub>i</sub>	3.065A Transient
Current	i <sub>i</sub>	1.7A Continuous
Permitted Inductance	L <sub>o</sub>	3.785uH
Permitted Capacitance	C <sub>o</sub>	3.2uF

18 Cell External Battery Pack Connections	
Pin	Signal
1	Vss (GND)
2	Bat +ve
3	Bat +ve
4	Vss (GND)

**Warning!** Connection to the external battery pack is made via a cable which must be assessed and verified as being intrinsically safe using the output parameters specified on the ATEX certificate (i.e. the cable parameters must not exceed the C<sub>o</sub> and L<sub>o</sub> specified on the ATEX certificate)

## 4.2 Debug Switches



Switch	Description	Notes
S1	Loop Power analogue input 0	Only functional in voltage mode.
S2	Loop Power analogue input 1	Only functional in voltage mode.
S3	On Modem connected to Micro	Off When in debug mode
S4	On Modem connected to Micro	Off When in debug mode
S5	Diagnostic mode On / Off	

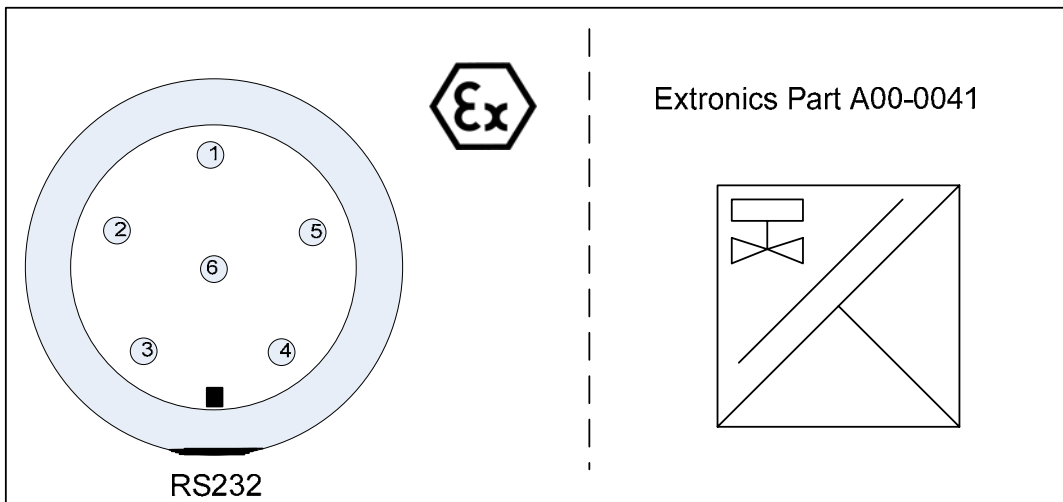
N.B All switches have two individual switches, these are wired in Parallel and therefore both switches have to be off or on.

### 4.3 RS232 port

The RS232 port is used to program the ILOG100 with configuration data. The ILOG100 can only be connected to RS232 devices via the RS232 Transient suppressor Extronics, part number A00-0041. The ILOG100 should be in a safe area when using the RS232 Port.

**Important** The ILOG100 RS232 port is intrinsically safe. RS232 devices which are not intrinsically safe can only be connected to the ILOG100 via the Extronics transient suppressor, part number A00-0041. The transient suppressor is **NOT** a barrier and should only be used with the ILOG100 when **BOTH** units are located in the safe area.

RS232	
Pin	Signal
1	RS232 TX
2	RS232 RX
3	Ext Prog L
4	Ext Reset L
5	Vss
6	Vss



## 4.4 Modem Debug Port

This port is for factory use only and should only be connected via the Modem Debug interface, Extronics part Number A00-0042.

<b>Important</b>	<b>The factory modem debug port is intrinsically safe. Debugging devices which are not intrinsically safe can only be connected to the ILOG100 ether via a barrier or via the Extronics transient suppressor, part number A00-0042. The transient suppressor is <u>NOT</u> a barrier and should only be used with the ILOG100 when <u>BOTH</u> units are located in the safe area.</b>
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<b>Modem Debug Port</b>	
<b><i>Pin</i></b>	<b><i>Signal</i></b>
1	Modem Data In TTL
2	Modem Data Out TTL
3	GND
4	GND
5	Modem CTS TTL
6	Modem RTS TTL

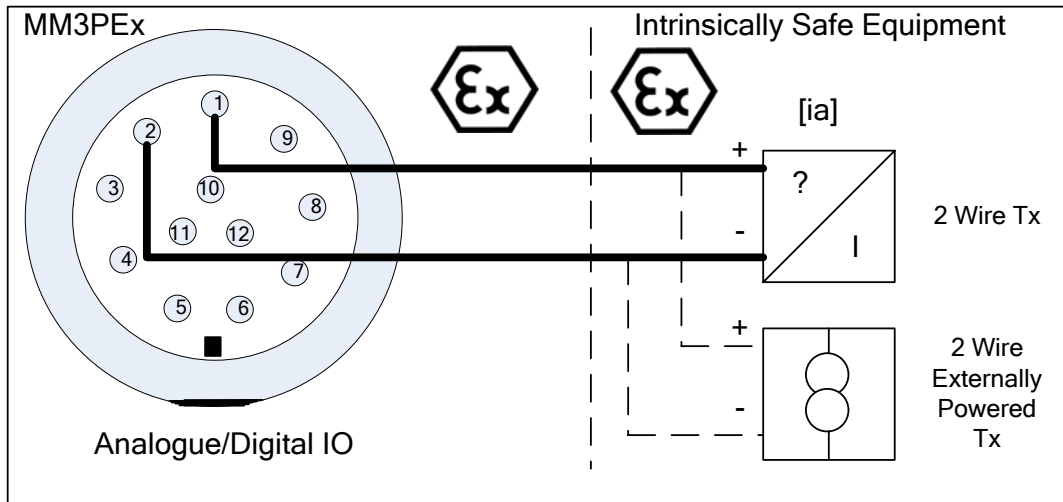
## 4.5 Analogue Input 1

Analogue Input 1 can be connected to both passive and active devices which can be externally or internally loop powered. The active and passive modes are factory configurable.

The default configuration is active current mode.

Analogue Input 1		
Voltage	Uo	26.9V DC
Current	Io	91.1 mA
Power	Po	0.612 W
Inductance	Lo	4.28mH
Capacitance	Co	91nF
	Lo/Ro	58μH / Ω

Analogue Input 1	
Pin	Signal
1	A1 +
2	A1 -



**IMPORTANT** Before setting the unit to work and connecting the battery ensure that there are no short circuits on the analogue inputs. This includes the A1+ to A1- and also to ground.

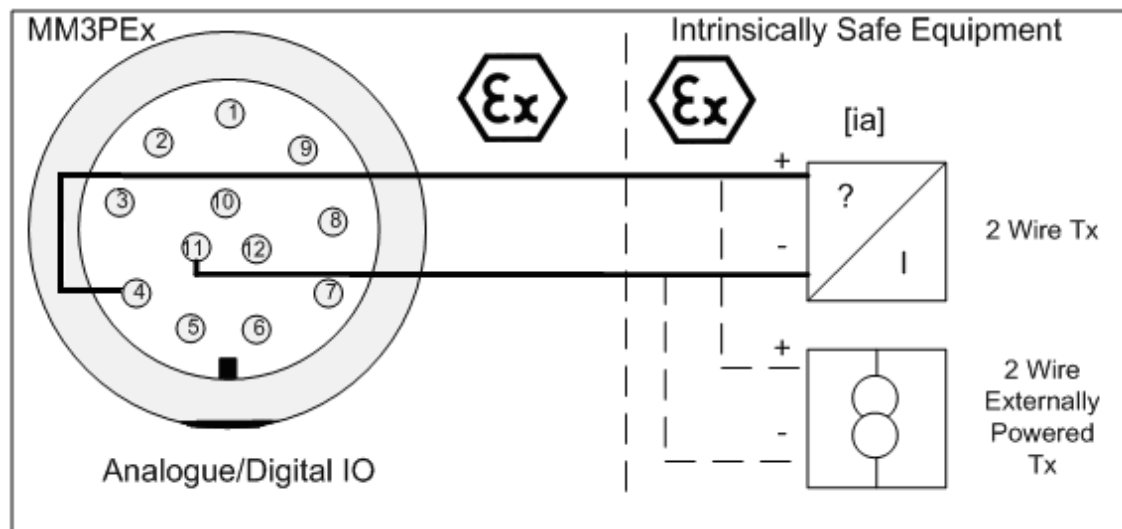
## 4.6 Analogue Input 2

Analogue Input 2 can be connected to both passive and active devices which can be externally or internally loop powered. The active and passive modes are factory configurable.

The default configuration is active current mode.

Analogue Input 2		
Voltage	$U_0$	26.9V DC
Current	$I_0$	91.1 mA
Power	$P_0$	0.612 W
Inductance	$L_0$	4.28mH
Capacitance	$C_0$	91nF
	$L_0/R_0$	58 $\mu$ H / $\Omega$

Analogue Input 2	
Pin	Signal
4	A2 +
11	A2 -



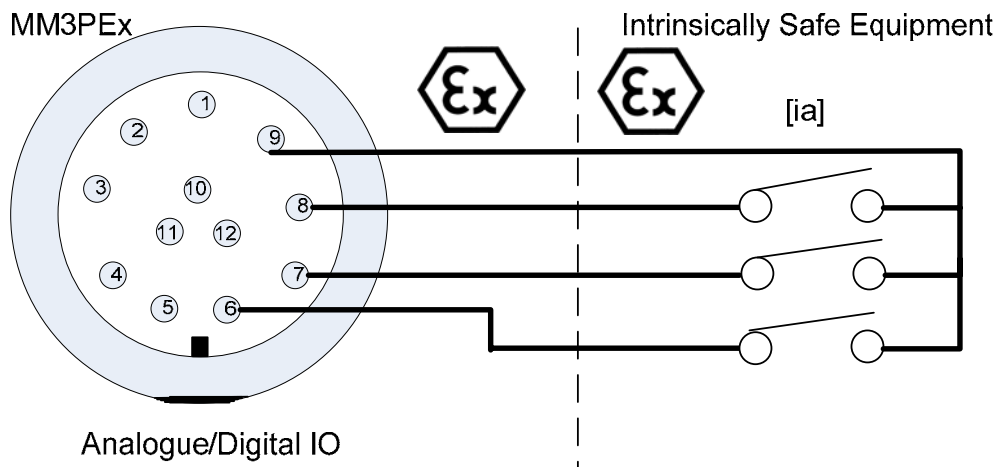
**IMPORTANT** Before setting the unit to work and connecting the battery ensure that there are no short circuits on the analogue inputs. This includes the A2+ to A2- and also to ground.

## 4.7 Digital Inputs

Digital inputs can be connected to switches and pulsed inputs.

Digital Inputs		
Voltage	Uo	8.61 DC
Current	Io	12.37 mA
Power	Po	26.6 mW
Inductance	Lo	100mH
Capacitance	Co	5.8µH
	Lo/Ro	1336µH / Ω

Digital Inputs	
Pin	Signal
6	D1+
7	D2+
8	D3+
9	GND



## 4.8 External Antenna

The ILOG100 can be connected to various external antenna's, currently two external antenna's have been approved for used with the ILOG100

Gas group	Antenna	Maximum cable length/Metres
IIC	Smartblade	8
IIC	Smartdisc	9.17
IIB	Smartblade	32.8
IIB	Smartdisc	36.7
IIA	Smartblade	65
IIA	Smartdisc	73.4

## 4.9 SIM Card

The SIM card is fitted to the PCB inside the ILOG100. Most Standard SIM cards can be fitted to the ILOG100, however you should check with Extronics as to which SIM cards can be used.

The diagrams below show how to install the SIM card into the ILOG100.

1. With the lid removed.



2. Disconnect the ribbon cables.



3. Unlock and Lift the SIM card holder. Fit the SIM card as shown.



4. Fit and Lock the SIM card holder.



5. Re-connect the ribbon cables.



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## 5 Installation and Setting-to-Work

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The ILOG100 should be installed in accordance with the safety information given in this manual.

Full installation instructions are provided in the Metasphere for the safe area version of the ILOG100. However attention should be paid to the following areas.

- The ILOG100 is connected to an 18 cell external battery pack, part number ILOG100-EB18
- Replacement battery packs are to only be of the same type supplied by Extronics.
- Refit the rear cover ensuring the gasket is in place, tightening the screws to 1NM
- Attach external connections as required, ensuring to blank off any unused connectors to ensure IP protection to the enclosure.
- Please ensure that any device which is connected to the ILOG100 meets the safety parameters outlined in this manual. Please ensure that any cable between the ILOG100 and connected devices is taken into account when performing intrinsic safety verification.
- Program the ILOG100 as per instructions provided by Metasphere, using the transient suppressor as described in section 4.3. Please note that this should only be performed in a safe area.
- Fit the ILOG100 in hazardous areas classified in section 1, fixing instructions are as per the safe area version of the MM3P from Metasphere.

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## 6 Intended Purpose Usage

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### 6.1 General Information

The ILOG100 is intended for use in a Group II Gas category 2 (Zone 1) hazardous areas. The enclosure is designed to be IP68.

The sensor outputs of the ILOG100 are suitable for sensors mounted in Category 1 (Zone 0) hazardous areas.

The ILOG100 is designed to be used in areas such as sewers and sewer overflows; however the ILOG100 can also be used in other areas classified as Zone 1.

Please contact Extronics for more information.

<b>Important</b>	<b>Before setting the unit to work, read all the technical documentation carefully.</b>
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<b>Important</b>	<b>The latest version of the technical documentation or the corresponding technical supplements is valid in each case.</b>
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The ILOG100 is built using modern components and is extremely reliable in operation; however it must only be used for its intended purpose. Please note that the intended purpose also includes compliance with the instructions issued by the manufacturer for installation, setting up and service.

Any other use is regarded as conflicting with the intended purpose. The manufacturer is not liable for any subsequent damage resulting from such inadmissible use. The user bears the sole risk in such cases.

### 6.2 Transportation and Storage

All ILOG100 devices must be so transported and stored that they are not subjected to any excessive mechanical stresses.

### 6.3 Authorized Persons

Only persons trained for the purpose are authorized to handle the ILOG100; they must be familiar with the unit and must be aware of the regulation and provisions required for explosion protection as well as the relevant accident prevention regulations.

## 6.4 Cleaning and Maintenance

The ILOG100 and all its components require no maintenance and are self-monitoring. All work on the ILOG100 by personnel who are not expressly qualified for such activities will cause the Ex approval and the guarantee to become void.

<b>Warning!</b>	<b>The ILOG100 enclosure is an electrostatic charging hazard; clean only with a damp cloth</b>
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## 6.5 Safety Precautions

<b>Important</b>	<b>For the installation, maintenance and cleaning of the units, it is absolutely necessary to observe the applicable regulations and provisions concerned with explosion protection (EN 50014, EN 50020) as well as the Accident Prevention Regulations.</b>
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## 6.6 Cleaning and Maintenance Intervals

Cleaning intervals depend on the environment where the system is installed.

## 6.7 Aggressive substances and environments

The ILOG100 is not designed to come into contact with aggressive substances or environments, please be aware that additional protection may be required.

## 6.8 Exposure to external stresses

The ILOG100 is not designed to be subjected to excessive stresses e.g. vibration, heat, impact. Additional protection is required to protect against these external stresses.

The ILOG100 will require additional protection if it is installed in a location where it may be subjected to damage.

# 7 EC Declaration of Conformity



## EC Declaration of Conformity

**Extronics Ltd, Meridian House, Roe street, Congleton, CW12 1PG UK**

Declare under sole responsibility that the product;

**MM3PEX / iLOG100** GSM Data logger

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

- 94/9/EC**                      Equipment Intended For Use In Potentially Explosive Atmospheres (ATEX)
- 93/465/EEC**                CE Marking
- 2004/108/EC**              Electromagnetic Compatibility Directive (EMC)
- 2006/95/EC**                Low Voltage Directive (LVD)

*And is in conformity with the following standards or other nominative documents*

EN50014:1997 incl A1 + A2	Electrical apparatus for potentially explosive atmospheres. General requirements
EN50020:2002	Electrical apparatus for potentially explosive atmospheres. Intrinsic safety 'I'
EN61010-1	Safety requirements for electrical equipment for measurement and control
EN60950	Safety of information technology equipment
EN60068	Environmental testing
EN55011, EN61000	EMC
EN60529	Degrees of protection provided by enclosures
EN55011:1991	Radiated emissions
EN61131-2:1994 incl A11:1996 + A12:2000	Programmable controllers. Equipment requirements and tests
EN61000-3-2:1995	Electrostatic discharges (4kV contact, 8kV air)
EN61000-4-3:1995	Radiated fields (26-1000MHz, 10V/m, AM)
EN61000-4-4:1995	Fast transients/bursts (0.25kV)

Signed

Date: 12/05/10

**Nick Saunders**  
Technical Services Manager

# 8 ATEX Certificate

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www.epsilonex.com



- 1 **EC - Type Examination Certificate**
- 2 Equipment intended for use in potentially explosive atmospheres
- 3 Certificate Number: EPSILON 07 ATEX 2198
- 4 Equipment: iLOG100
- 5 Manufacturer: Extronics Ltd
- 6 Address: Meridian House, Roe Street, Congleton, Cheshire, CW12 1PG
- 7 This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.
- 8 Epsilon, Notified Body number 1712 in accordance with Article 9 of the Council directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to design and construction of equipment and protective systems for use in potentially explosive atmospheres given in Annex II to the directive  
  
The examination and test results are recorded in confidential report no RETS(A)1606/B/2
- 9 Compliance with the applicable Essential Health and Safety Requirements has been assured by compliance with:  
  
EN 50014: 1997 incl A1 + A2  
EN 50020: 2002
- 10 If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.
- 11 This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. Further requirements of the directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by the certificate.
- 12 The marking of the equipment shall include the following:

 II 2(1) G EEx ib[ia] IIC T4 (-20°C to +45°C)

 II 2(1) G EEx ib[ia] IIC T3 (-20°C to +50°C)



On behalf of Epsilon



S D'Henin  
Director

Date: 5 June 2007



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13 **Schedule**

14 Certificate Number: EPSILON 07 ATEX 2198

15 Description of Equipment or protective system

The iLOG100 is a battery powered GSM data logger combined with a modem, antenna and a number of connectors for the connection of externally located equipment, including an optional external battery pack.

The equipment comprises; a main printed circuit board (MM3P PCB) with integral Modem Module, a protection PCB with on board SIM card, a connector PCB and an internal stub antenna. The main board is completely encapsulated with the modem. The protection board is partially encapsulated and the connector board is unencapsulated. The equipment is powered from a 9V (nominal) encapsulated battery pack, comprising six alkaline D size cells connected in series with current limiting devices. All of the component parts are housed within the plastic enclosure. A Bulgin connector located in the enclosure wall enables an approved external antenna to be used as an option. Three other Bulgin connectors enable connection to other externally located equipment.

The electrical parameters at the three external connectors are as follows:-

**Digital Connections**, pins 5, 6 and 7 wrt. 0V of connector CN3 (considered to be 3 circuits combined)

U <sub>o</sub>	=	8.61V
I <sub>o</sub>	=	12.37mA
P <sub>o</sub>	=	26.6mW
C <sub>i</sub>	=	0
L <sub>i</sub>	=	0
C <sub>o</sub>	=	5.9µF
L <sub>o</sub>	=	100mH
L <sub>o</sub> /R <sub>o</sub>	=	1336µH/ohm

**Analogue Connections**, pins 1 and 2, wrt. 0V and pins 4 and 11 wrt. 0V of connector CN3 (considered as two separate circuits).

For each analogue circuit		
U <sub>o</sub>	=	26.9V
I <sub>o</sub>	=	91.1mA
P <sub>o</sub>	=	0.612W
C <sub>i</sub>	=	0
L <sub>i</sub>	=	0
C <sub>o</sub>	=	91nF
L <sub>o</sub>	=	4.28mH
L <sub>o</sub> /R <sub>o</sub>	=	58µH/ohm

Connector CN4 for RS232 communications.

This connector is only to be used when the equipment is located in a safe (non-hazardous) area, and using the appropriate, dedicated interface devices.

**External Battery Pack**

Connector CN5 – is for the connection of the external battery pack.

The external Battery Pack, part of this certification, is identical to the internal battery pack used in the equipment but housed in a separate plastic enclosure of the same type as used for the Datalogger. This external battery has Part Number iLOG100-EB. The External battery pack connects to the Datalogger via a dedicated cable which is specified by the manufacturer. The electrical parameters of the cable must not exceed the values of C<sub>o</sub> and L<sub>o</sub> shown in the table below.



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The output parameters for the external battery pack are as follows:-

U<sub>o</sub> = 9.9V  
I<sub>o</sub> = 3.333A transient  
I<sub>o</sub> = 850mA continuous  
P<sub>o</sub> = 5.5W  
C<sub>i</sub> = 0  
L<sub>i</sub> = 0  
C<sub>o</sub> = 3.2μF  
L<sub>o</sub> = 3.2μH

16 Descriptive Documents

16.1 Report No: RETS(A)1606/B/2

16.2 Drawings:

Document No.	Document Title	Sheets	Issue	Date (yyyy/mm/dd)
311719	Main Assembly	1 of 1	01	2006/08/07
311670	Battery Pack Assembly	1 of 1	01	2006/08/07
318119	Main Assembly ATEX label	1 of 1	01	2007/05/24
311073	Potted PCB GA	1 of 1	01	2006/08/17
310001	Battery module schematic	1 of 1	01	2006/08/18
312298	Battery module BOM	1 of 1	01	2006/06/21
311830	Main board, Circuit Diagrams	1 to 9	01	2006/02/08
311843	Main board, BOM	1 of 1	01	2006/08/09
309317	Protection board, Circuit Diagram	1 of 1	02	2006/08/21
310069	Protection board, BOM	1 of 1	02	2006/08/21
310086	Protection board PCB layout	1 to 17	02	2006/08/10
310086	Protection board PCB layout	1 to 16	03	2006/09/05
310000	Connector board, Circuit Diagram	1 of 1	01	2006/06/28
310070	Connector board, BOM	1 of 1	01	2006/07/26
310081	Connector board PCB layout	1 to 15	1	2006/06/21
312816	External battery pack	1 of 1	01	2006/08/07
318120	External battery pack label	1 of 1	01	2007/05/24
312304	External battery pack connector board circuit	1 of 1	01	2006/03/13
312872	Static warning label	1 of 1	1	2006/08/16

17 Conditions of Certification

17.1 Special Conditions for Safe Use  
*None.*

17.2 Conditions for Use

1. The manufacturer must ensure that no enhanced voltages can appear at the SIM card connections when it is in use either internally from the SIM card or externally from the associated circuits. Only the manufacturer (Extronics Ltd) recommended SIM cards can be used.
2. Only the manufacturers (Extronics Ltd) specified dedicated cable can be supplied and used with the external battery pack.

Page 3 of 4

Certificate 07 ATEX 2198

This certificate may only be reproduced in its entirety and without any change, schedule included.  
For help or assistance relating to this certificate, contact cs@epsilonex.com.

Epsilon Compliance Services Limited is a trading name of Epsilon Technical Services Limited



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- 18 Essential Health and Safety Requirements  
Compliance with the Essential Health and Safety Requirements detailed in Annex II of EU Directive 94/9/EC is demonstrated by compliance with the Standards listed in section 9 above and by information recorded in Epsilon Report RETS(A)1606/B/2.

The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in Annex III to Directive 94/9/EC of the European Parliament and the Council of 23<sup>rd</sup> March 1994.



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**Supplement to EU-Type Examination Certificate**

Certificate Number: 07 ATEX 2198      Dated: 5 June 2007  
Variation Number: 02

**Variation Detail:**

To Permit: the use an alternative encapsulating compound Q-SIL-550 and alternative RS232 IC.

**Descriptive Documents:**

Document No.	Document Title	Sheets	Issue	Date (yyyy/mm/dd)
311073	Potted PCB GA	1 of 1	02	2008/01/28
311830	Main board, Circuit Diagrams	1 to 9	02	2008/01/22
311843	Main board, BOM	1 of 1	03	2008/01/28

Report nos. RETS(A)1606/B/2 & RETS(A)2778/A/1/V2

**Additional Conditions of Certification:**

None

**Additional Special Conditions for Safe Use:**

None



On behalf of Epsilon

*S D'Henin*  
S D'Henin  
Operations Manager

Date: 4 February 2008

Certificate 07 ATEX 2198      Variation Number: 02



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**Supplement to EC – Type Examination Certificate**

Certificate Number: 07 ATEX 2198      Dated: 05 June 2007 (Original Cert Date)  
Variation Number: 3 (Three)

**Variation Detail:**

To permit:

1. The use of the encapsulating material verified at variation two to cover the electronic circuits.
2. Circuit changes to the main board including an alternative modem, GPRS Module.
3. An alternative design of external battery pack, part no. 5-029.
4. Minor changes to the protection PCB
5. This version of the iLOG100 can use either GSM or GPRS methods of communication.

**Descriptive Documents:**

Report No. RETS(A)1606/B/1/V3

The drawings affected by this variation are as follows:-

Document No.	Document Title	Sheets	Issue	Date (yyyy/mm/dd)
311719	Main Assembly	1 of 1	02	2008/11/06
311670	Battery Pack Assembly	1 of 1	02	2008/11/06
311073	Potted PCB GA	1 of 1	03	2009/03/20
310001	Battery module schematic	1 of 1	02	2008/10/30
312298	Battery module BOM	1 of 1	02	2008/12/19
311830	Main board, Circuit Diagrams	1 to 9	04	2009/04/15
311843	Main board, BOM	1 of 1	06	2009/04/14
309317	Protection board, Circuit Diagram	1 of 1	03	2008/11/17
310069	Protection board, BOM	1 of 1	05	2009/04/09
310000	Connector board, Circuit Diagram	1 of 1	02	2008/10/30
310070	Connector board, BOM	1 of 1	04	2009/04/09
312816	External battery pack	1 of 1	02	2008/11/06
312304	External battery pack connector board circuit	1 of 1	02	2008/10/30

On behalf of Epsilon



S D'Henin  
Certification Manager

Date: 21 April 2009

Certificate 07ATEX 2198      Variation Number: 3

This variation may only be reproduced in its entirety and without any change, schedule included.  
The variation is only valid when it carries an original signature and holographic security label.  
For help or assistance relating to this variation, contact [cs@epsilonex.com](mailto:cs@epsilonex.com).

# Operating Manual

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324798	18 cell external battery pack Assembly	1 of 1	02	2009/04/21
323411	18 cell external battery pack Schematic	1 of 1	02	2009/04/08
324428	18 cell external battery pack PCB layout	1 to 14	02	2009/03/25
324469	18 cell external battery pack BOM	1 of 1	01	2009/04/08
324804	18 cell external battery pack Label	1 of 1	01	2009/03/20

**Additional Conditions of Certification:**

None.

**Additional Special Conditions for Safe Use:**

None.



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## 9 ATEX Label Sample

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PART # iLOG100  
SERIAL # xxxxxxxx  
DATE xx/xx/xx



II 2(1) G EEx ib[ia] IIC T3 / T4  
T4:Ta -20°C to 45°C T3:Ta -20°C to 50°C

**Epsilon 07 ATEX 2198**

FOR ADDITIONAL ELECTRICAL SAFETY PARAMETERS  
PLEASE CONSULT ATEX CERTIFICATE

**WARNING - POTENTIAL ELECTROSTATIC CHARGING  
HAZARD. WIPE ONLY WITH A DAMP CLOTH**

EXTRONICS LTD, MERIDIAN HOUSE, ROE STREET, CONGLETON CW12 1PG

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## 10 Manual Revision

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<b>Revision</b>	<b>Description</b>	<b>Date</b>	<b>By</b>
PRE01	PRE Release Version	02/05/07	Nick Saunders
1	Released Version	15/05/07	James Eastwood
2	Updated	12/05/10	Nick Eardley