



1 **EC TYPE-EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3 Certificate Number: Sira 02ATEX2297X

4 Equipment: Mercury 2 Data Device

5 Applicant: Mercury IMC Limited

6 Address: George House  
Derwent Road  
York Road Industrial Estate  
Malton  
Yorkshire YO17 6YB  
UK

7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Sira Certification Service, notified body number 0518 in accordance with Article 9 of Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report numbers R52A8881A, R52A10699A and R51V11045V.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN 50014:1997 (amendments A1 to A2)

EN 50020:2002

EN 500284:1999

EN 50281-1-1:1998 + Amendment 1 was used for reference

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 and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:



II 1G

II 2 GD (T62°C) IP6X

EEx ia IIC T4 Ta = -20°C to +50°C

Project Number 51V11045  
Date 27 May 2003  
Re-issued 30 June 2004  
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C Eilaby  
Certification Officer

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**Sira Certification Service**

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**SCHEDULE**

**EC TYPE-EXAMINATION CERTIFICATE**

Sira 02ATEX2297X

Re-issued 30 June 2004 to change the name of the applicant as detailed in report number R51V11045V and to incorporate variation 1 dated 7 April 2004.

13 **DESCRIPTION OF EQUIPMENT**

The Mercury 2 Data Device unit is fixed equipment and has a cast aluminium enclosure, which is epoxy painted. Externally the equipment comprises a membrane keyboard, card reader and Liquid Crystal Display. Internally it comprises a main printed circuit board (PCB) and display PCB. A socket is fitted to the enclosure wall to permit connection to an optional Bar Code Wand. The equipment is intended to be used in outdoor areas protected from windblown rain.

The Mercury 2 has the following safety description:

<b>J5 Pins 1,2, 3 and 4</b>		<b>J1 Pins 1, 2, 3, 4 and 5</b>	
Ui	= 19.34 V	Uo	= 29.4 V
Uo	= 1.2 V	Io	= 66.4 mA
Ii	= 254 mA	Po	= 262 mW
Pi	= 1.07 W	Co	= 71 nF
Ci	= 0	Lo/Ro	= 135 $\mu$ H/ $\Omega$
Li	= 0	Ci	= 0
		Li	= 0

14 **DESCRIPTIVE DOCUMENTS**

14.1	Drawing No.	Sheet	Rev.	Date	Title
	P053'007'C	1 of 1	6	13 Jun 94	General Assembly
	P053'009'F	1 of 2	8	28 Jun 94	Parts List
	P053'009'F	2 of 2	8	28 Jun 94	Parts List
	R005'010'C	1 of 1	2	26 Jul 89	Card Reader Assembly
	P053'015'D	1 of 1	2	24 Oct 90	Transformer T1 on PCB P053-2
	R005'016'C	1 of 1	3	29 Apr 92	Card reader/Proximity Switch wiring Schematic
	R005'018'D	1 of 1	1	07 Mar 89	Card Reader Coil
	P005'020'D	1 to 3	2	26 Apr 94	Circuit Diagram
	R004'067D	1 of 1	5	14 Oct 02	Display Modification
	R004'069'D	1 of 1	4	12 Apr 91	Keyboard Assembly
	R004'074'B	1 & 2	7	30 Jan 04	General Assembly
	P053'041'D	1 of 3	2	13 Jun 94	Component Ident
	P053'041'D	2 of 3	2	13 Jun 94	Track Layout Component Side
	P053'041'D	3 of 3	2	13 Jun 94	Track Layout Solder Side
	R004'016'E	1 of 1	4	15 deC 03	Mercury 2 Label Detail
	R004'017'E	1 of 1	0	28 Mar 03	Mercury 2 Material Specification
	R008'010'D	1 of 1	3	29 Apr 92	Bar Code Socket Assembly
	R008'013'E	1 of 1	1	21 Jan 03	Barcode Reader Label Detail
	R008'012'E	1 of 1	2	30 Jun 04	Barcode Reader Label Artwork
	R008'011'E	1 of 1	1	21 Jan 03	Barcode Reader Label Detail
	R008'005'D	1 of 1	4	03 Jul 97	Bar Code Reader

14.2 Report numbers R52A8881A, R52A10699A and R51V11045V

Date 27 May 2003  
Re-issued 30 June 2004

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## SCHEDULE

### EC TYPE-EXAMINATION CERTIFICATE

Sira 02ATEX2297X

- 15 **SPECIAL CONDITIONS FOR SAFE USE** (denoted by X after the certificate number)
- 15.1 Parts of the enclosure are non-conducting and may generate an ignition-capable level of electrostatic charge under certain extreme conditions. The user should ensure that the equipment is not installed or used in a location where it may be subjected to external conditions (such as high-pressure steam) which might cause a build-up of electrostatic charge on non-conducting surfaces. Additionally, cleaning of the equipment should be done only with a damp cloth.
- 15.2 As aluminium is used at the accessible surface of this equipment, in the event of rare incidents, ignition sources due to impact and friction sparks could occur. This shall be considered when the Mercury 2 is being installed in locations that specifically require group II, category 1G equipment.
- 15.3 The mercury 2 may be used in conjunction with a bar code wand, which may be unplugged. Only the type bearing the certificate number Sira 02ATEX2297X may be used.
- 15.4 The bar code wand does not meet the 500V insulation requirements. This shall be taken into account when the mercury 2 is being installed.
- 15.5 The user shall take account of the fact that the equipment has been assessed assuming a low risk of impact in service.
- 15.6 The bar-code wand shall not be used in the presence of combustible dust.
- 16 **ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II** (EHSRs)
- The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in Report numbers R52A8881A, R52A10699A and R51V11045V.
- 17 **CONDITIONS OF CERTIFICATION**
- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.
- 17.2 Holders of EC type-examination certificates are required to comply with the production control requirements defined in Article 8 of directive 94/9/EC.

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