

1 **TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres  
Directive 2014/34/EU**

3 Type Examination Certificate Number: **Baseefa12ATEX0050X – Issue 1**

3.1 In accordance with Article 41 of Directive 2014/34/EU, Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary Certificates to such Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016.

4 Product: **MX2032, MX2033 & MX2034 Digital Proximity Systems**

5 Manufacturer: **Metrix Instrument Co.**

6 Address: **8824 Fallbrook, Houston, Texas, 77064. USA**

7 This re-issued certificate extends Type Examination Certificate No. Baseefa12ATEX0050X to apply to product designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

8 SGS Baseefa certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products of Category 3 intended for use in potentially explosive atmospheres given in Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.

The examination and test results are recorded in confidential Report No. (see certificate history)

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

**EN 60079-0:2012+A11:2013 EN 60079-15:2010**

except in respect of those requirements listed at item 18 of the Schedule.

10 If the sign “X” is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

11 This TYPE EXAMINATION CERTIFICATE relates only to the design of the specified equipment and not to specific items of equipment subsequently manufactured.

12 The marking of the product shall include the following :

**Ⓢ II 3G Ex nA IIC T4 Gc (-40°C ≤ T4 ≤ +85°C)**

Baseefa Customer Reference No. **0708**

Project File No. **18/0441**

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**R S SINCLAIR**  
TECHNICAL MANAGER

On behalf of SGS Baseefa Limited

METRIX DOC NO: 1456013

REV: B

M POWNEY  
Certification  
Manager

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## Schedule

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### Certificate Number Baseefa12ATEX0050X – Issue 1

#### 15 Description of Product

The MX2032, MX2033 and MX2034 are normally supplied as part of the Digital Proximity System (DPS). The units comprise three potted printed circuit boards housed inside a DIN rail mountable enclosure. A coaxial RF connector is present to enable a proximity probe to be connected using an extension cable, and a 3 or 4 way terminal block accepts the user connections.

The MX2034-AA-BB-CC-DD-EE-FF where EE = X4, X5 or X6 includes connections for a dynamic output signal on the 4 way connector. All other variants have a 3 way connector present.

Rated supply voltage = 17V to 30V.

#### 16 Report Number

See certificate history.

#### 17 Specific Conditions of Use

1. The protection concept used must be irrevocably marked on the label during installation, except for the MX2034-AA-BB-CC-DD-EE-FF where EE = X4 X5 or X6 that is marked as “nA” during manufacture.
2. The equipment must be installed in a suitably certified enclosure such that it is afforded a degree of protection of at least IP54 in accordance with EN 60529 and EN 60079-15 and is in an area of not more than pollution degree 2, as defined in IEC/EN 60664-1.
3. External transient supply limitation must be present that clamps at no more than 42V.
4. Do not separate connectors when energised.

#### 18 Essential Health and Safety Requirements

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report:

Clause	Subject
1.0.5 indent 2	Application of CE Marking
1.4.1	External effects
1.4.2	Aggressive substances, etc.

#### 19 Drawings and Documents

New drawings submitted for this issue of certificate:

Drawing No.	Sheet	Issue	Date	Description	METRIX DOC NO: 1456013 REV: B
<u>Analog/digital Drawings (MX2032, MX2033, MX2034)</u>					
100495-AGENCY	1 to 4	J	August 13, 2018	Schematic, DPS, Analog/Digital Board	
100496-AGENCY	1 to 9	J	AUG-13-18	Fabrication Dwg, Analog PCB, MX2032, MX2033 & MX2034 (Agency)	
100497-AGENCY	1	E	AUG-13-18	Assembly, DPS, Analog/Digital Board	
<u>Analog/digital Drawings (MX2032, MX2034)</u>					
100497-AGENCY	1 & 2	K	AUG-13-18	BOM, MX2032/2034 Controller Board	
<u>Analog/digital Drawings (MX2033)</u>					
100500-AGENCY	2	J	AUG-13-18	BOM, MX2033 Controller Board (Agency)	

<b>Drawing No.</b>	<b>Sheet</b>	<b>Issue</b>	<b>Date</b>	<b>Description</b>
<u>PSU Drawings (MX2032)</u>				
100488-AGENCY	1 & 2	G	AUG-13-18	BOM, "MX2032 Power Supply Board"
100488-AGENCY	1	C	AUG-13-18	Assy, DPS, Power Supply Bd.
<u>PSU Drawings (MX2033)</u>				
100491-AGENCY	1 & 2	L	AUG-13-18	Parts List, Assy, DPS, Power Supply Board, RoHS
100491-AGENCY	1	B	AUG-13-18	Assy, DPS, Power Supply Bd. (Agency)
<u>PSU Drawings (MX2034)</u>				
100492-AGENCY	1 & 2	H	AUG-13-18	Schematic, DPS, Power Supply Bd.
100494-AGENCY	2	N	AUG-13-18	Parts List, Assy, DPS, Power Supply Board, MX2034, RoHS
100494-AGENCY	1	C	AUG-13-18	Assy, DPS, Power Supply Bd.
100493-AGENCY	1 to 9	E	AUG-13-18	Drill Dwg, Power Supply, MX2034 (Agency)
<u>PSU Drawings (MX2032 &amp; MX2033)</u>				
100486-AGENCY	1	J	AUG-13-18	Schematic MX2032 and MX2033 Power Supply Board
100487-AGENCY	1 to 9	G	AUG-13-18	Drill Dwg, Power Supply, MX2032 & MX2033 (Agency)
<u>Interconnect Drawings (MX2032, MX2033, MX2034)</u>				
100501-AGENCY	1	C	AUG-13-18	Schematic, DPS, Interconnect Bd.
100502-AGENCY	1 to 9	C	AUG-13-18	Drill Dwg, Interconnect PCB, MX2032, MX2033 & MX2034 (Agency)
100972-AGENCY	1	A	03/28/2019	Schem DWG, MX2033/MX2034 Interconnect Board, RoHS Agency
100973-AGENCY	1 to 9	A	7/31/2019	Drill Dwg, MX2033/MX2034 Interconnect Board, RoHS
100974-AGENCY	1	A	23-July-2019	Parts List, MX2033/MX2034 Interconnect Board, RoHS, Agency
100974-AGENCY	1	A	04/23/19	Assy DWG, MX2033/MX2034 Interconnect Board, RoHS, Agency
100503 AGENCY	1	F	April-26-19	BOM, DPS, Interconnect Board (agency)
100503-AGENCY	1	B	AUG-13-18	Assy, DPS, Interconnect Bd. (Agency)
94019-107-SCD	1	B	04-25-19	SCD, Connector, Screwless Term Block, 3 Pos, 3.5mm, RoHS
94019-108-SCD	1	B	04-25-19	SCD, Connector, Screwless Term Block, 4 Pos, 3.5mm, RoHS
1862198-AGENCY	1	A	October 2019	100974 Interconnect Board (instead of 100503) for MX2034 – 3 Pin Connector (94019-107) or 4 Pin Connector (940-108) Modification Procedure
1881628-AGENCY	1	A	Jun 2019	100974 Interconnect Board (instead of 100503) for MX2033 – 3 Pin Connector (94019-107) Modification Procedure
<u>General (MX2032, MX2033, MX2034)</u>				
100563-XXX-AGENCY	1 & 2	B	AUG-13-18	Label, MX2032, MX2033 & MX2034 (Agency)
100511-XXX-AGENCY	1 & 2	B	AUG-13-18	Label, Top, DPS (AGENCY)
1082695-AGENCY	1	E	AUG-13-18	General Arrangement Drawing
9639-AGENCY	1	B	AUG-13-18	Adapter Board
9639-AGENCY	1	B	AUG-13-18	Assembly, Adapter Board (Agency)

These drawings are held with IECEx BAS 12.0032X Issue 1, and are common to IECEx BAS 12.0033X Issue 1, Baseefa12ATEX0050X Issue 1 and Baseefa19ATEX0110X.

Current drawings which remain unaffected by this issue:- None.

**20 Certificate History**

<b>Certificate No.</b>	<b>Date</b>	<b>Comments</b>
Baseefa12ATEX0050X	16 July 2015	The release of the prime certificate. The associated test and assessment against the requirements of EN 60079-0:2012 +A11:2013 and EN 60079-15:2010 is documented in Test Report GB/BAS/ExTR12.0040/00 for project 11/0418.
Baseefa12ATEX0050X Issue 1	25 October 2018	This issue of the certificate permits electrical changes including the addition of a 4 terminal MX2034 model, minor drawing changes and incorporates previously issued primary certificate & this supplementary certificate into one certificate. The associated test and assessment is documented in Test Report GB/BAS/ExTR18.0206/00 for project 18/0441.
For drawings applicable to each issue, see original of that issue.		



**The following pages are the prior revisions of this certificate.**

1 **TYPE EXAMINATION CERTIFICATE**

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

3 Type Examination Certificate Number: **Baseefa12ATEX0050X**

4 Equipment: **MX2032, MX2033 & MX2034 Digital Proximity Systems**

5 Manufacturer: **Metrix Instrument Co.**

6 Address: **8824 Fallbrook, Houston, Texas, 77064. USA**

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

8 Baseefa certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment of Category 3 intended for use in potentially explosive atmospheres given in Annex II to European Union Directive 94/9/EC of 23 March 1994.

The examination and test results are recorded in confidential Report No. **GB/BAS/ExTR12.0040/00**

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

**EN 60079-0:2012+A11:2013 EN 60079-15:2010**

except in respect of those requirements listed at item 18 of the Schedule.

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 TYPE EXAMINATION CERTIFICATE relates only to the design of the specified equipment and not to specific items of equipment subsequently manufactured.

12 The marking of the equipment shall include the following :

**⊕ II 3G Ex nA IIC T4 Gc (-40°C ≤ T4 ≤ +85°C)**

Baseefa Customer Reference No. **0708**

Project File No. **11/0418**

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**R S SINCLAIR  
GENERAL MANAGER**

On behalf of SGS Baseefa Limited

METRIX DOC NO: 1456013  
REV: A

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## Schedule

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Certificate Number Baseefa12ATEX0050X

### 15 Description of Equipment

The MX2032, MX2033 and MX2034 are normally supplied as part of the Digital Proximity System (DPS). The units comprise three potted printed circuit boards housed inside a DIN rail mountable enclosure. A coaxial RF connector is present to enable a proximity probe to be connected using an extension cable, and screw terminal plug and socket assembly accepts the user connections. The MX2034 also includes a BNC connector for dynamic output.

Rated supply voltage = 17V to 30V.

### 16 Report Number

GB/BAS/ExTR12.0040/00

### 17 Specific Conditions of Use

1. The protection concept used must be irrevocably marked on the label during installation.
2. The equipment must be installed in a suitably certified enclosure such that it is afforded a degree of protection of at least IP54 in accordance with EN 60529 and EN 60079-15 and is in an area of not more than pollution degree 2, as defined in IEC/EN 60664-1.
3. External transient supply limitation must be present that clamps at no more than 42V.
4. Do not separate connectors when energised.

### 18 Essential Health and Safety Requirements

All relevant Essential Health and Safety Requirements are covered by the standards listed at item 9.

### 19 Drawings and Documents

Number	Sheet	Issue	Date	Description
<b>Controller Drawings (MX2032, MX2033, MX2034)</b>				
100495	1 to 4	H	March 11, 2015	Schematic, DPS, Analog/Digital Board
100496-AGENCY	1 to 9	H	02-25-14	Fabrication Dwg, Analog PCB, MX2032, MX2033 & MX2034 (Agency)
100497-AGENCY	1	D	10-22-08	Assembly, DPS, Analog/Digital Board
<b>Controller Drawings (MX2032, MX2034)</b>				
100497-AGENCY	-	J	4/23/2014	BOM, MX2032/2034 Controller Board
<b>Controller Drawings (MX2033)</b>				
100500-AGENCY	-	H	2-26-14	BOM, MX2033 Analog/digital Board (Agency)
<b>PSU Drawings (MX2032)</b>				
100488-AGENCY	-	F	06/28/2013	BOM, "MX2032 Power Supply Board"
100488-AGENCY	1	B	07-18-11	Assy, DPS, Power Supply Bd.
<b>PSU Drawings (MX2033)</b>				
100491-AGENCY	-	J	3/30/2015	BOM, "MX2033 Power Supply Board"
100491-AGENCY	1	A	02-25-14	Assy, DPS, Power Supply Bd. (Agency)
<b>PSU Drawings (MX2034)</b>				

Number	Sheet	Issue	Date	Description
100492-AGENCY	1 & 2	G	07-18-11	Schematic, DPS, Power Supply Bd.
100494-AGENCY	-	H	2/26/2014	BOM, "MX2034 Power Supply Board"
100494-AGENCY	1	B	07-18-11	Assy, DPS, Power Supply Bd.
100493-AGENCY	1 to 9	D	06-13-13	Drill Dwg, Power Supply, MX2034 (Agency)
<b>PSU Drawings (MX2032 &amp; MX2033)</b>				
100486-AGENCY	1	H	March 30, 2015	Schematic MX2032 and MX2033 Power Supply Board
100487-AGENCY	1 to 9	F	02-25-14	Drill Dwg, Power Supply, MX2032 & MX2033 (Agency)
<b>Interconnect Drawings (MX2032, MX2033, MX2034)</b>				
100501-AGENCY	1	B	05-20-11	Schematic, DPS, Interconnect Bd.
100502-AGENCY	1 to 9	B	02/25/14	Drill Dwg, Interconnect PCB, MX2032, MX2033 & MX2034 (Agency)
100503 AGENCY	-	C	2/25/2014	BOM, DPS, Interconnect Board (agency)
100503-AGENCY	1	A	02-25-14	Assy, DPS, Interconnect Bd. (Agency)
<b>General (MX2032, MX2033, MX2034)</b>				
100563-XXX-AGENCY	1 & 2	A	02/25/14	Label, MX2032, MX2033 & MX2034 (Agency)
100511-XXX-AGENCY	1 & 2	A	08/11/14	Label, Top, DPS (AGENCY)
1082695-AGENCY	1	D	05/23/11	General Arrangement Drawing
9639-AGENCY	001	A	02-26-14	Adapter Board
These drawings are held with IECEx BAS 12.0032X and are common to IECEx BAS 12.0033X & Baseefa12ATEX0049X.				