

EU-TYPE EXAMINATION

CERTIFICATE

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

1.	EU-Type Examina	ation Certificate Number:	ETL22ATEX0138X	Issue 00				
2.	Product:	MX2033 & MX2034 Digital F	Proximity Systems					
3.	Manufacturer:	Metrix Instrument Co.	0					
4.	Address:	8824 Fallbrook, Houston, Te	exas, 77064. USA					
5.		any acceptable variation the nts therein referred to.	reto is specified in th	e schedule to this certificate				
6.	Directive 2014/3 certifies that the Requirements re	Services NA Ltd., Notified Bod 4/EU of the European Parliam product has been found to co lating to the design and const oheres given in Annex II of the	nent and of the Coun omply with the Essen truction of products i	cil dated 26 February 2014,				
7.	Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN IEC 60079-0:2018 and EN 60079-11:2012 except in respect of those requirements referred to within item 14 of the Schedule.							
8.	If the sign "X" is placed after the certificate number, it indicates that the product is subject to the special conditions of use specified in the Schedule to this certificate.							
9.	This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.							
10.	The marking of the product shall include the following:							
	\\$\	Ex ia IIC T4 Ga C≤Ta≤85°C	0					
Cert	ification Officer:	Jain J. Wolf	Date:	7 September 2022				
		Kevin Wolf						

METRIX DOC NO: 1456012

REV: C



EU-Type Examination Certificate Number: ETL22ATEX0138X Issue 00

11. Description of Equipment or Protective System

The MX2033-AA-BB-CC-DD and MX2034-AA-BB-CC-DD-EE-FFF-GG are normally supplied as part of the Digital Proximity System (DPS).

For MX2034-AA-BB-CC-DD-EE-FFF-GG where DD = X4, X5, X6, X7, or X8, these models are suitable for either Zone 0 (Ex ia) or for Zone 2 (Ex ec) use, the protection concept used must be irrevocably marked on the label at the time of installation.

For MX2034-AA-BB-CC-DD-EE-FFF-GG where DD = X0, these models are non-hazardous area certified, the letters after the main model number denote configuration options not affecting certification.

The MX2034 also includes a BNC connector that can be used in hazardous locations.

- Where DD = 04, S4, 05, S5, 06, S6, the BNC connector can only be used in Zone 2 (Ex ec) installations.
- Where DD = 07, S7, 08, S8, the BNC connector can be used in Zone 0 (Ex ia) installations.

The units comprise of 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 input terminals of MX2033 and MX2034 is to be powered only from resistively limited sources.

TERMINAL PARAMETERS

MX2034 DD=04/S4, 05/S5, or 06/S6:

Input Terminals Pin 1(Loop-) & Pin 2(Loop+)

Ui = 28V

Ii = 93mA

Pi = 0.66W

C = 18nF

 $Li = 2\mu H$

Output BNC Dynamic Connector

Um = 0V

MX2034 DD = 07/S7, 08/S8:

Input Terminals Pin 1(Loop-) & Pin 2(Loop+)

Ui = 25.4V

Ii = 86.8mA

Pi = 0.551W

 $C = 0\mu F$

 $Li = 39.6 \mu H$

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<u>Input Terminals Pin 3(Sig) & Pin 4(COM) - BNC Dynamic Connector</u>

Ui = 15.5V

Ii = 7.2mA

Pi = 0.028W

Ci = 7.48nF

 $Li = 192.28 \mu H$

MX2033 Input Terminals Pin 1(-VT), Pin 2(COM) & Pin 3(Sig)

Ui =28V

Ii = 138mA

Pi = 0.81W

C = 18nF

 $Li = 2\mu H$

This equipment is certified to type Ex 'ec' by Type certificate ETL22ATEX0157X.

12. Report Number

Intertek Report: 104968532DAL-002 Issue: 00 Dated: August 23rd, 2022.

13. Special Conditions of Certification

- (a). Special Conditions of Use
 - The protection concept used must be irrevocably marked on the label during installation
 - To reduce the risk of electrostatic ignition the equipment must be cleaned only with a damp cloth.
- (b). Conditions of Manufacture Routine Tests
 - N/A

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14. Essential Health and Safety Requirements (EHSRs)

The relevant Essential Health and Safety Requirements (EHSRs) have been identified and assessed in Intertek Report: 104968532DAL-002 Issue: 00 Dated: August 23rd, 2022.

15. Drawings and Documents

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Title:	Drawing No.:	Rev. Level:	Date:
Schematic, DPS, Analaog/Digital Board	100495- AGENCY-DWG	J	8/13/2018
BOM, MX2032/MX2034 Controller Board (Agency)	100497- AGENCY	L	8/30/2021
BOM, MX2033 Controller Board (AGENCY)	100500- AGENCY	L	10/28/2021
Assembly, DPS, Analog/Digital Board	100497- AGENCY-DWG	E	8/13/2018
Fabrication Dwg, Analog PCB, MX2032, MX2033 & MX2034 (Agency)	100496- AGENCY-DWG	J	8/13/2018

This Certificate is for the exclusive use of Intertek's client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Certificate. Only the Client is authorized to permit copying or distribution of this Certificate and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. This Certificate is accredited under SCC file number 10014.

Intertek Testing Services NA Ltd., 14920-135 Avenue, Edmonton, AB, TSV 189, Canada

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Parts List for Assy, Adapter Board	9639-AGENCY	В	8/13/2018
Assy, Adapter Board (Agency)	9639-AGENCY- DWG	В	8/13/2018
Schematic, DPS, Power Supply Bd.	100492- AGENCY-DWG	Н	8/13/2018
BOM, "MX2034 POWER SUPPLY BOARD"	100494- AGENCY	V	10/26/2021
Assy, DPS, Power Supply Bd.	100494- AGENCY-DWG	С	8/13/2018
Drill Dwg, Power Supply,MX2032 & MX2034 (Agency)	100493- AGENCY-DWG	E	8/13/2018
Schematic, DPS, Power Supply Bd.	100486- AGENCY-DWG	3	8/13/2018
BOM, "MX2033 POWER SUPPLY BOARD"	100491 AGENCY	N	8/20/2021
Assy, DPS, Power Supply Bd. (Agency)	100491- AGENCY-DWG	В	8/13/2018
Drill Dwg, Power Supply, MX2033 (Agency)	100487- AGENCY-DWG	G	8/13/2018
Schematic, DPS, Interconnect Bd.	100501- AGENCY-DWG	D	7/29/2021
BOM, DPS Interconnect Board (Agency)	100503- AGENCY	G	8/3/2021
Assy, DPS, Interconnect Bd. (Agency)	100503- AGENCY-DWG	c //	7/29/2021
Drill Dwg, Interconnect PCB, MX2032, MX2033 & MX2034 (Agency)	100502- AGENCY-DWG	D	9/28/2021
Schem Dwg, MX2033/MX2034 interconnect board, RoHS, Agency	100972- AGENCY-DWG	В	5/7/2020
Drill Dwg, MX2033/MX2034 interconnect board, RoHS, Agency	100973- AGENCY-DWG	С	4/29/2021
Parts List, MX2033/MX2034 interconnect board, RoHS, Agency	100974- AGENCY	В	5/7/2020
Assy Dwg, MX2033/MX2034 interconnect board, RoHS, Agency	100974- AGENCY-DWG	В	5/7/2020
100974 Interconnect Board MX2034, 3 Pin Connector (94019-107) or 4 Pin Connector (94019-108) Modification Procedure	1862198- AGENCY	А	6/1/2019
100974 Interconnect Board for MX2033, 3 Pin Connector (94019-107) Modification Procedure	1881628- AGENCY	А	6/1/2019

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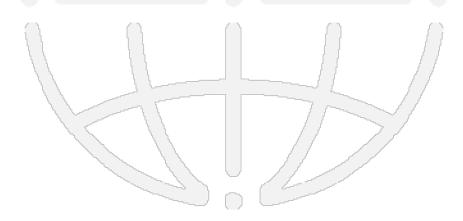
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Label, MX2032, MX2033 & MX2034	100563-XXX- AGENCY	С	5/5/2021
Label, Top, MX2032, MX2033 & MX2034	100511-XXX- AGENCY-DWG	С	4/12/2022
General Arrangement Drawing	1082695- AGENCY	Е	8/13/2018
Intrinsically Safe Installation (Intertek) MX2033 & MX2034	100506-DWG	С	4/29/2022
Installation, (ATEX IECEx), MX2032, MX2033, & MX2034	100508-DWG	С	4/29/2022
Zone 2 Installation (ATEX IECEx), MX2032, MX2033, & MX2034	100515-DWG	C	4/29/2022
SCD, connector, screwless term block, 3 pos, 3.5mm, RoHS	94019-107-SCD	E	9/11/2020
SCD, connector, screwless term block, 4 pos, 3.5mm, RoHS	94019-108-SCD	E	9/11/2020
Div. 2 Installation (Intertek) MX2033/MX2034	100512-DWG	D \	4/25/2022
Label, MX2033, and MX2034	100563-XXX	K	4/29/2022
Hazardous Area Installation Manual	1232961	E	April 2022



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The following	pages are th	e prior revis	sions of this c	ertificate.

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EU - TYPE EXAMINATION CERTIFICATE

- 2 Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- EU Type Examination Certificate Baseefa12ATEX0049X - Issue 1 Number:
- In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in 3.1 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 EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016.

MX2032, MX2033 & MX2034 Digital Proximity Systems Product:

5 Manufacturer: Metrix Instrument Co.

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

- This re-issued certificate extends EC Type Examination Certificate No. Baseefa12ATEX0049X 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.
- SGS Baseefa, Notified Body number 1180, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament 8 and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

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 60079-11:2012

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

- If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use 10 specified in the schedule to this certificate.
- 11 This EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this
- 12 The marking of the product shall include the following:

(a) II 1G Ex ia IIC T4 Ga $(-40^{\circ}\text{C} \le \text{T4} \le +85^{\circ}\text{C})$

Baseefa Customer Reference No. 0708

Project File No. 18/0441

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SGS Baseefa Limited

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M POWNEY Certification Manager

TECHNICAL MANAGER On behalf of SGS Baseefa Limited

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13 Schedule

Certificate Number Baseefa12ATEX0049X – Issue 1

15 Description of Product

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The MX2032-AA-BB-CC-DD, MX2033-AA-BB-CC-DD and MX2034-AA-BB-CC-DD-EE-FF are normally supplied as part of the Digital Proximity System (DPS).

The letters after the main model number denote configuration options not affecting certification except for the MX2034 EE = X4 X5 or X6 that is not covered by this certificate.

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 3 way accepts the user connections. The MX2034 also includes a BNC connector for dynamic output.

TERMINAL PARAMETERS

MX2032 & MX2034 Input Terminals Pin 1(Loop-) & Pin 2(Loop+)

 $U_i = 28V$

 $I_i = 93 \text{mA}$

 $P_{\rm i} = 0.66 {\rm W}$

 $C_i = 18nF$

 $L_i = 2\mu H$

The equipment is to be powered only from resistively limited sources.

MX2032 & MX2034 Input Terminals Pin 3(Test) w.r.t Pin 1(Loop-) & Pin 2(Loop+)

$$U_{\rm m} = 0 V$$

This connection is not for use in hazardous areas.

MX2033 Input Terminals Pin 1(-V_T), Pin 2(COM) & Pin 3(Sig)

 $U_i = 28V$

 $I_{i} = 138 \text{mA}$

 $P_{\rm i} = 0.81 {\rm W}$

 $C_i = 18nF$

 $L_i = 2\mu H$

The equipment is to be powered only from resistively limited sources.

MX 2034 BNC - Dynamic Output Connector

$$U_{\rm m}=0$$

This connection is not for use in hazardous areas.

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.
- 2. For the MX2032 and MX2034, the user terminal pin 3 is not for use in hazardous areas.
- 3. For the MX2034, the top BNC output connector is not for use in hazardous areas.
- 4. To reduce the risk of electrostatic ignition the equipment must be cleaned only with a damp cloth.

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Issue 1



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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		
Analog/digital Drawings (MX2032, MX2033, MX2034)						
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		
Analog/digital Drawings (MX2032,	MX203	<u>4)</u>			
100497-AGENCY	1 & 2	K	AUG-13-18	BOM, MX2032/2034 Controller Board		
Analog/digital Drawings (MX2033)					
100500-AGENCY	2	J	AUG-13-18	BOM, MX2033 Controller Board (Agency)		
PSU Drawings (MX2032)						
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.		
PSU Drawings (MX2033)						
100491-AGENCY	1 & 2	L	AUG-13-18	Parts List, Assy, DPS, Power Supply Board, RoHS		
100491-AGENCY	1	В	AUG-13-18	Assy, DPS, Power Supply Bd. (Agency)		
PSU Drawings (MX2034)						
100492-AGENCY	1 & 2	Н	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)		
PSU Drawings (MX2032	& MX203	<u>3)</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)		
Interconnect Drawings (MX2032, MX2033, MX2034)						
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	Α	03/28/2019	Schem DWG, MX2033/MX2034 Interconnect Board, RoHS Agency		

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100973-AGENCY	Drawing No.	Sheet	Issue	Date	Description
100974-AGENCY	100973-AGENCY	1 to 9	A	7/31/2019	
100503 AGENCY	100974-AGENCY	1	A	23-July-2019	·
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 MX2034 – 3 Pin Connector (94019-107) or 4 Pin Connector (94019-107) or 4 Pin Connector (940-108) Modification Procedure 1881628-AGENCY 1 A Jun 2019 MX2033 – 3 Pin Connector (94019-107) Modification Procedure General (MX2032, MX2033, MX2033, MX2034) 1 AUG-13-18 Label, MX2032, MX2033 & MX2034 (Agency) 100511-XXX-AGENCY 1 & AUG-13-18 Label, Top, DPS (AGENCY) 1082695-AGENCY 1 E AUG-13-18 General Arrangement Drawing	100974-AGENCY	1	A	04/23/19	· ·
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 MX2034 – 3 Pin Connector (94019-107) or 4 Pin Connector (940-108) Modification Procedure 1881628-AGENCY 1 A Jun 2019 MX2033 – 3 Pin Connector (94019-107) Modification Procedure General (MX2032, MX2033, MX2034) I & 2 B AUG-13-18 Label, MX2032, MX2033 & MX2034 (Agency) 100563-XXX-AGENCY 1 & 2 B AUG-13-18 Label, Top, DPS (AGENCY) 1082695-AGENCY 1 E AUG-13-18 General Arrangement Drawing	100503 AGENCY	1	F	April-26-19	BOM, DPS, Interconnect Board (agency)
94019-107-SCD 1 B 04-25-19 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 MX2034 – 3 Pin Connector (94019-107) or 4 Pin Connector (940-108) Modification Procedure 1881628-AGENCY 1 A Jun 2019 MX2033 – 3 Pin Connector (94019-107) Modification Procedure General (MX2032, MX2033, MX2034) 1 A Jun 2019 MX2032, MX2033, MX2034 (Agency) 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	100503-AGENCY	1	В	AUG-13-18	Assy, DPS, Interconnect Bd. (Agency)
RoHS 100974 Interconnect Board (instead of 100503) for MX2034 – 3 Pin Connector (94019-107) or 4 Pin Connector (940-108) Modification Procedure 100974 Interconnect Board (instead of 100503) for MX2034 – 3 Pin Connector (94019-107) or 4 Pin Connector (940-108) Modification Procedure 100974 Interconnect Board (instead of 100503) for MX2033 – 3 Pin Connector (94019-107) Modification Procedure General (MX2032, MX2033, MX2034) MX2033, MX2034 Label, MX2032, MX2033 & MX2034 (Agency) 100563-XXX-AGENCY	94019-107-SCD	1	В	04-25-19	
1862198-AGENCY 1 A October 2019 MX2034 – 3 Pin Connector (94019-107) or 4 Pin Connector (940-108) Modification Procedure 1881628-AGENCY 1 A Jun 2019 MX2033 – 3 Pin Connector (94019-107) Modification Procedure General (MX2032, MX2033, MX2034) Value of the connector of the connector (94019-107) Modification Procedure 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	94019-108-SCD	1	В	04-25-19	
1881628-AGENCY 1 A Jun 2019 MX2033 – 3 Pin Connector (94019-107) Modification Procedure General (MX2032, MX2033, MX2034)	1862198-AGENCY	1	A	October 2019	MX2034 – 3 Pin Connector (94019-107) or 4 Pin
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	1881628-AGENCY	1	A	Jun 2019	MX2033 – 3 Pin Connector (94019-107) Modification
100511-XXX-AGENCY 1 & 2 B AUG-13-18 Label, Top, DPS (AGENCY) 1082695-AGENCY 1 E AUG-13-18 General Arrangement Drawing	General (MX2032, MX20	33, MX20	034)		
1082695-AGENCY 1 E AUG-13-18 General Arrangement Drawing	100563-XXX-AGENCY	1 & 2	В	AUG-13-18	Label, MX2032, MX2033 & MX2034 (Agency)
2 100 10 10 000000000000000000000000000	100511-XXX-AGENCY	1 & 2	В	AUG-13-18	Label, Top, DPS (AGENCY)
9639-AGENCY 1 B AUG-13-18 Adapter Board	1082695-AGENCY	1	E	AUG-13-18	General Arrangement Drawing
	9639-AGENCY	1	В	AUG-13-18	Adapter Board
9639-AGENCY 1 B AUG-13-18 Assembly, Adapter Board (Agency)	9639-AGENCY	1	В	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, IECEx BAS 19.0096X, Baseefa12ATEX0050X Issue 1 & Baseefa19ATEX0110X.

Current drawings which remain unaffected by this issue: None.

20 Certificate History

Certificate No.	Date	Comments				
Baseefa12ATEX0049X	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 60079-11:2012 is documented in Test Report GB/BAS/ExTR12.0040/00 for project 11/0418.				
Baseefa12ATEX0049X Issue 1	25 October 2018	This issue of the certificate permits minor electrical changes, 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/ExTR18.0205/00 for project 18/0441.				
For drawings applicable to each issue, see original of that issue.						

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Issue 1

BAS-CERT-038 REV: B



The following	pages are th	e prior revis	sions of this c	ertificate.



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EC - TYPE EXAMINATION CERTIFICATE

2 Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
Directive 94/9/EC

3 EC - Type Examination

1

Baseefa12ATEX0049X

Certificate Number:

4 Equipment or Protective System: MX2032, MX2033 & MX2034 Digital Proximity Systems

5 Manufacturer: Metrix Instrument Co.

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

- 7 This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- Baseefa, Notified Body number 1180, 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 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 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 60079-11:2012

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 or protective system 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 or protective system. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.
- 12 The marking of the equipment or protective system shall include the following:

 $\langle E_x \rangle$ II 1G Ex ia IIC T4 Ga (-40°C \leq T4 \leq +85°C)

Baseefa Customer Reference No. 0708

Project File No. 11/0418

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Schedule

Certificate Number Baseefa12ATEX0049X

15 Description of Equipment or Protective System

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.

TERMINAL PARAMETERS

MX2032 & MX2034 Input Terminals Pins 1 & 2

 $U_i = 28V$

 $I_i = 93 \text{mA}$

 $P_{\rm i} = 0.66 {\rm W}$

 $C_{\rm i} = 18 {\rm nF}$

 $L_i = 2\mu H$

The equipment is to be powered only from resistively limited sources.

MX2032 & MX2034 Input Terminals Pins 3 w.r.t Pins 1 & 2

$$U_{\rm m} = 0 \rm V$$

This connection is not for use in hazardous areas.

MX2033 Input Terminals Pins 1, 2 & 3

 $U_i = 28V$

 $I_i = 138 \text{mA}$

 $P_{\rm i} = 0.81 \, {\rm W}$

 $C_{\rm i} = 18 {\rm nF}$

 $L_i = 2\mu H$

The equipment is to be powered only from resistively limited sources.

MX 2034 Dynamic Output Connector

$$U_{\rm m} = 0$$

This connection is not for use in hazardous areas.

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. For the MX2032 and 2034, the user terminal pin 3 is not for use in hazardous areas.
- 3. For the MX2034, the top BNC output connector is not for use in hazardous areas.
- 4. To reduce the risk of electrostatic ignition the equipment must be cleaned only with a damp cloth.

18 Essential Health and Safety Requirements

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

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19 Drawings and D	ocuments	3			
Number	Sheet	Issue	Date	Description	
Controller Drawings (M	X2032, M	X2033,	MX2034)	•	
100495	1 to 4	Н	March 11, 2015	Schematic, DPS, Analog/Digital Board	
100496-AGENCY	1 to 9	Н	02-25-14	Fabrication Dwg, Analog PCB, MX2032, MX2033 & MX2034 (Agency)	
100497-AGENCY	1	D	10-22-08	Assembly, DPS, Analog/Digital Board	
Controller Drawings (M	X2032,M	K2034)			
100497-AGENCY	-	J	4/23/2014	BOM, MX2032/2034 Controller Board	
Controller Drawings (M	X2033)				
100500-AGENCY	-	H	2-26-14	BOM, MX2033 Analog/digital Board (Agency)	
PSU Drawings (MX2032)				
100488-AGENCY	-	F	06/28/2013	BOM, "MX2032 Power Supply Board"	
100488-AGENCY	1	В	07-18-11	Assy, DPS, Power Supply Bd.	
PSU Drawings (MX2033)				
100491-AGENCY	-	J	3/30/2015	BOM, "MX2033 Power Supply Board"	
100491-AGENCY	1	A	02-25-14	Assy, DPS, Power Supply Bd. (Agency)	
PSU Drawings (MX2034)				
100492-AGENCY	1 & 2	G	07-18-11	Schematic, DPS, Power Supply Bd.	
100494-AGENCY	-	Н	2/26/2014	BOM, "MX2034 Power Supply Board"	
100494-AGENCY	1	В	07-18-11	Assy, DPS, Power Supply Bd.	
100493-AGENCY	1 to 9	D	06-13-13	Drill Dwg, Power Supply, MX2034 (Agency)	
PSU Drawings (MX2032	& MX203	33)			
100486-AGENCY	1	Н	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)	
Interconnect Drawings (MX2032,	MX203	3, MX2034)		
100501-AGENCY	1	В	05-20-11	Schematic, DPS, Interconnect Bd.	
100502-AGENCY	1 to 9	В	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)	
General (MX2032, MX2033, MX2034)					
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 Baseefa12ATEX0050X.	held wit	th IEC	CEx BAS 12.0032	2X and are common to IECEx BAS 12.0033X &	

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