

EU Type Examination Certificate CML 23ATEX2525X Issue 0

- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Equipment **MX2033 & MX2034 Digital Proximity System**
- 3 Manufacturer **Metrix Instrument Co.**
- 4 Address **8824 Fallbrook Dr.
Houston,
TX 77064**
- 5 The equipment is specified in the description of this certificate and the documents to which it refers.
- 6 Eurofins CML B.V., Chamber of Commerce No 67386717, Koopvaardijweg 32, 4906CV Oosterhout, The Netherlands, Notified Body Number 2776, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, 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 the confidential reports listed in Section 12.
- 7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.
- 8 This EU Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 apply to the manufacture of the equipment or component and are separately certified.
- 9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

EN IEC 60079-0:2018 EN 60079-11:2012
- 10 The equipment shall be marked with the following:



II 1 G

Ex ia IIC T4 Ga

-40°C ≤ Tamb ≤ +85°C

11 Description

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 = 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.

Ratings

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

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

$U_i = 28V$
 $I_i = 93mA$
 $P_i = 0.66W$
 $C = 18nF$
 $L_i = 2\mu H$

Output BNC Dynamic Connector

$U_m = 0V$

MX2034 DD = 07/S7, 08/S8:

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

$U_i = 25.4V$
 $I_i = 86.8mA$
 $P_i = 0.551W$
 $C = 0\mu F$
 $L_i = 39.6\mu H$

Input Terminals Pin 3(Sig) & Pin 4(COM) - BNC Dynamic Connector

Ui = 15.5V
Ii = 7.2mA
Pi = 0.028W
Ci = 7.48nF
Li = 192.28μH

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

Ui = 28V
Ii = 138mA
Pi = 0.81W
C = 18nF
Li = 2μH

Notes:

- ETL22ATEX0138X / IECEX ETL 22.0014X / ITS22UKEX0528X is superseded by this certificate.
- The product covered by Issue 0 of this certificate remains identical to that previously covered by ETL22ATEX0138X / IECEX ETL 22.0014X / ITS22UKEX0528X.
- Where ETL22ATEX0138X / IECEX ETL 22.0014X / ITS22UKEX0528X is specified in other product certification, or other technical specifications, this certificate reference for the product shall be used in its place; updating of the other product certificate or technical specification is not required.

12 Certificate history and evaluation reports

Issue	Date	Associated Report	Notes
0	31 Oct 2025	R17124B/00	Issue of Prime Certification.

Note: Drawings that describe the equipment or component are listed in the Annex.

13 Conditions of Manufacture

None.

14 Specific Conditions of Use (Special Conditions)

The following conditions relate to safe installation and/or use of the equipment.

- 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.

Certificate Annex

Certificate Number CML 23ATEX2525X
Equipment MX2033 & MX2034 Digital Proximity System
Manufacturer Metrix Instrument Co.



The following documents describe the equipment or component defined in this certificate:

Issue 0

Drawing No	Sheets	Rev	Approved Date	Title
100495-AGENCY	1 to 4	J	31 Oct 2025	Schematic, DPS, Analog/Digital Board
100497-AGENCY	1 to 2	L	31 Oct 2025	BOM, MX2032/MX2034 Controller Board (Agency)
100500-AGENCY	1 to 2	L	31 Oct 2025	BOM, MX2033 Controller Board (AGENCY)
100497-AGENCY	1 of 1	E	31 Oct 2025	Assembly, DPS, Analog/Digital Board
100496-AGENCY	1 to 9	J	31 Oct 2025	Fabrication Dwg, Analog PCB, MX2032, MX2033 & MX2034 (Agency)
9639-AGENCY	1 of 1	B	31 Oct 2025	Parts List for Assy, Adapter Board
9639-AGENCY	1 of 1	B	31 Oct 2025	Assembly, Adapter Board (Agency)
100492-AGENCY	1 to 2	H	31 Oct 2025	Schematic, DPS, Power Supply Bd.
100494-AGENCY	1 to 3	V	31 Oct 2025	BOM, "MX2034 POWER SUPPLY BOARD"
100494-AGENCY	1 of 1	C	31 Oct 2025	Assy, DPS, Power Supply Bd.
100493-AGENCY	1 to 9	E	31 Oct 2025	Drill Dwg, Power Supply, MX2034 (Agency)
100486-AGENCY	1 of 1	J	31 Oct 2025	Schematic MX2032 and MX2033 Power Supply Board
100491-AGENCY	1 of 1	N	31 Oct 2025	BOM, "MX2033 POWER SUPPLYBOARD"
100491-AGENCY	1 of 1	B	31 Oct 2025	Assy, DPS, Power Supply Bd. (Agency)
100487-AGENCY	1 to 9	G	31 Oct 2025	Drill Dwg, Power Supply, MX2032 & MX2033 (Agency)
100501-AGENCY	1 of 1	D	31 Oct 2025	Schematic, DPS, Interconnect Board, Agency
100503-AGENCY	1 of 1	G	31 Oct 2025	BOM, DPS Interconnect Board (Agency)
100503-AGENCY	1 of 1	C	31 Oct 2025	Agency, Assy, DPS, Interconnect PCB, RoHS
100502-AGENCY-DWG	1 to 9	D	31 Oct 2025	Drill Dwg, Interconnect PCB, MX2033

Certificate Annex

Certificate Number CML 23ATEX2525X
Equipment MX2033 & MX2034 Digital Proximity System
Manufacturer Metrix Instrument Co.



Drawing No	Sheets	Rev	Approved Date	Title
100972-AGENCY	1 of 1	B	31 Oct 2025	Schematic Dwg, DPS 1.35 Smart Transmitter with a 4-Pin Connector, Interconnect Board
100973-AGENCY-DWG	1 to 9	C	31 Oct 2025	Drill Dwg, DPS 4 Pin Interconnect PCB
100974-AGENCY	1 of 1	B	31 Oct 2025	Parts List, MX2033/MX2034 Interconnect Board, RoHS, Agency
100974-AGENCY	1 of 1	B	31 Oct 2025	Assy Dwg, MX2033/MX2034 Interconnect Board, RoHS, Agency
1862198-AGENCY	1 of 1	A	31 Oct 2025	100974 Interconnect Board MX2034, 3 Pin Connector (94019-107) or 4 Pin Connector (94019-108) Modification Procedure
1881628-AGENCY	1 of 1	A	31 Oct 2025	100974 Interconnect Board for MX2033, 3 Pin Connector (94019-107) Modification Procedure
100563-XXX-AGENCY	1 to 2	D	31 Oct 2025	Label, MX2033 & MX2034 (AGENCY)
100511-XXX-AGENCYDWG	1 of 1	C	31 Oct 2025	Label, Top, DPS (Agency)
1082695-AGENCY	1 of 1	E	31 Oct 2025	General Arrangement Drawing
100506	1 to 3	C	31 Oct 2025	Intrinsically Safe Installation (Intertek) MX2033 & MX2034
100508	1 to 3	D	31 Oct 2025	Intrinsically Safe, Installation (ATEX/ IECEx) MX2033/MX2034)
100515	1 of 2	C	31 Oct 2025	Zone 2 Installation (ATEX/ IECEx) MX2032, MX2033, & MX2034
100515	2 of 2	B	31 Oct 2025	Zone 2 Installation (ATEX/ IECEx) MX2032, MX2033, & MX2034
EB5390-03-500-A1779	1 of 1	E	31 Oct 2025	3.50mm Spacing, Screwless Block
EB5390-04-500-A1780	1 of 1	E	31 Oct 2025	3.50mm Spacing, Screwless Block



The following pages are the prior revisions of this certificate.

EU-TYPE EXAMINATION

CERTIFICATE

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

1. **EU-Type Examination Certificate Number:** ETL22ATEX0138X **Issue 00**
2. **Product:** MX2033 & MX2034 Digital Proximity Systems
3. **Manufacturer:** Metrix Instrument Co.
4. **Address:** 8824 Fallbrook, Houston, Texas, 77064. USA
5. This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
6. Intertek Testing Services NA Ltd., Notified Body number 2903 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council dated 26 February 2014, certifies that the 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 of the Directive.
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:



II 1G Ex ia IIC T4 Ga
-40°C ≤ Ta ≤ 85°C

Certification Officer:


Kevin Wolf

Date:

7 September 2022

METRIX DOC NO: 1456012
REV: C

SCHEDULE:

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+)

$U_i = 28V$
 $I_i = 93mA$
 $P_i = 0.66W$
 $C = 18nF$
 $L_i = 2\mu H$

Output BNC Dynamic Connector

$U_m = 0V$

MX2034 DD = 07/S7, 08/S8:

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

$U_i = 25.4V$
 $I_i = 86.8mA$
 $P_i = 0.551W$
 $C = 0\mu F$
 $L_i = 39.6\mu H$

METRIX DOC NO: 1456012
REV: C

SCHEDULE:

EU-Type Examination Certificate Number: ETL22ATEX0138X Issue 00

Input Terminals Pin 3(Sig) & Pin 4(COM) - BNC Dynamic Connector

$U_i = 15.5V$
 $I_i = 7.2mA$
 $P_i = 0.028W$
 $C_i = 7.48nF$
 $L_i = 192.28\mu H$

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

$U_i = 28V$
 $I_i = 138mA$
 $P_i = 0.81W$
 $C = 18nF$
 $L_i = 2\mu H$

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

METRIX DOC NO: 1456012
REV: C

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

Title:	Drawing No.:	Rev. Level:	Date:
Schematic, DPS, Analag/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

SCHEDULE:

EU-Type Examination Certificate Number: ETL22ATEX0138X Issue 00

Parts List for Assy, Adapter Board	9639-AGENCY	B	8/13/2018
Assy, Adapter Board (Agency)	9639-AGENCY-DWG	B	8/13/2018
Schematic, DPS, Power Supply Bd.	100492-AGENCY-DWG	H	8/13/2018
BOM, "MX2034 POWER SUPPLY BOARD"	100494-AGENCY	V	10/26/2021
Assy, DPS, Power Supply Bd.	100494-AGENCY-DWG	C	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	J	8/13/2018
BOM, "MX2033 POWER SUPPLY BOARD"	100491-AGENCY	N	8/20/2021
Assy, DPS, Power Supply Bd. (Agency)	100491-AGENCY-DWG	B	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	B	5/7/2020
Drill Dwg, MX2033/MX2034 interconnect board, RoHS, Agency	100973-AGENCY-DWG	C	4/29/2021
Parts List, MX2033/MX2034 interconnect board, RoHS, Agency	100974-AGENCY	B	5/7/2020
Assy Dwg, MX2033/MX2034 interconnect board, RoHS, Agency	100974-AGENCY-DWG	B	5/7/2020
100974 Interconnect Board MX2034, 3 Pin Connector (94019-107) or 4 Pin Connector (94019-108) Modification Procedure	1862198-AGENCY	A	6/1/2019
100974 Interconnect Board for MX2033, 3 Pin Connector (94019-107) Modification Procedure	1881628-AGENCY	A	6/1/2019

METRIX DOC NO: 1456012
REV: C

SCHEDULE:

EU-Type Examination Certificate Number: ETL22ATEX0138X Issue 00

Label, MX2032, MX2033 & MX2034	100563-XXX-AGENCY	C	5/5/2021
Label, Top, MX2032, MX2033 & MX2034	100511-XXX-AGENCY-DWG	C	4/12/2022
General Arrangement Drawing	1082695-AGENCY	E	8/13/2018
Intrinsically Safe Installation (Intertek) MX2033 & MX2034	100506-DWG	C	4/29/2022
Installation, (ATEX IECEx), MX2032, MX2033, & MX2034	100508-DWG	C	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

METRIX DOC NO: 1456012
REV: C



The following pages are the prior revisions of this certificate.

1 **EU - TYPE EXAMINATION CERTIFICATE**

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

3 EU - Type Examination Certificate **Baseefa12ATEX0049X – Issue 1**
Number:

3.1 In accordance with Article 41 of Directive 2014/34/EU, EC-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 EC-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 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.

8 SGS Baseefa, Notified Body number 1180, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament 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.

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 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.

12 The marking of the product shall include the following :

Ⓔ II 1G Ex ia IIC T4 Ga (-40°C ≤ T4 ≤ +85°C)

Baseefa Customer Reference No. **0708**

Project File No. **18/0441**

This document is issued by the Company subject to its General Conditions for Certification Services accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and the Supplementary Terms and Conditions accessible at <http://www.sgs.com/SGSBaseefa/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. It does not necessarily indicate that the equipment may be used in particular industries or circumstances. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, schedule included, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

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R S SINCLAIR

TECHNICAL MANAGER

On behalf of SGS Baseefa Limited

M POWNEY
Certification
Manager

METRIX DOC NO: 1456012

REV: B

13

Schedule

14

Certificate Number Baseefa12ATEX0049X – Issue 1

15 Description of Product

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+)

$$\begin{aligned}U_i &= 28V \\I_i &= 93mA \\P_i &= 0.66W \\C_i &= 18nF \\L_i &= 2\mu H\end{aligned}$$

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+)

$$U_m = 0V$$

This connection is not for use in hazardous areas.

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

$$\begin{aligned}U_i &= 28V \\I_i &= 138mA \\P_i &= 0.81W \\C_i &= 18nF \\L_i &= 2\mu H\end{aligned}$$

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

MX 2034 BNC - Dynamic Output Connector

$$U_m = 0$$

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.

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
<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)
<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 & 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

Drawing No.	Sheet	Issue	Date	Description
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

General (MX2032, MX2033, MX2034)

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, 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.		



The following pages are the prior revisions of this certificate.

EC - TYPE EXAMINATION CERTIFICATE

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

- 3 EC - Type Examination Certificate Number: **Baseefa12ATEX0049X**
- 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.
- 8 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 :

Ex II 1G Ex ia IIC T4 Ga (-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: 1456012
REV: A

13

Schedule

14

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

$$\begin{aligned}U_i &= 28V \\I_i &= 93mA \\P_i &= 0.66W \\C_i &= 18nF \\L_i &= 2\mu H\end{aligned}$$

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

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

$$U_m = 0V$$

This connection is not for use in hazardous areas.

MX2033 Input Terminals Pins 1, 2 & 3

$$\begin{aligned}U_i &= 28V \\I_i &= 138mA \\P_i &= 0.81W \\C_i &= 18nF \\L_i &= 2\mu H\end{aligned}$$

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

MX 2034 Dynamic Output Connector

$$U_m = 0$$

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.

19 Drawings and Documents

Number	Sheet	Issue	Date	Description
Controller Drawings (MX2032, MX2033, MX2034)				
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
Controller Drawings (MX2032,MX2034)				
100497-AGENCY	-	J	4/23/2014	BOM, MX2032/2034 Controller Board
Controller Drawings (MX2033)				
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	B	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	-	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)
PSU Drawings (MX2032 & MX2033)				
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)
Interconnect Drawings (MX2032, MX2033, MX2034)				
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)
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 held with IECEx BAS 12.0032X and are common to IECEx BAS 12.0033X & Baseefa12ATEX0050X.				