

UK Type Examination Certificate CML 23UKEX2526X Issue 0**United Kingdom Conformity Assessment**

- 1 Product or Protective System Intended for use in Potentially Explosive Atmospheres UKSI 2016:1107 (as amended) – Schedule 3A, Part 1
- 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 E&E CML Limited, Newport Business Park, New Port Road, Ellesmere Port, CH65 4LZ, United Kingdom, Approved Body Number 2503, in accordance with Regulation 42 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), 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 Schedule 1 of the Regulations.

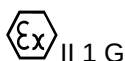
The examination and test results are recorded in the confidential reports listed in Section 12.

- 7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to specific conditions of use (affecting correct installation or safe use). These are specified in Section 14.
- 8 This UK Type Examination certificate relates only to the design and construction of the specified equipment. Further requirements of the Regulations apply to the manufacturing process and supply of the product. These are not covered by this certificate.
- 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:



Ex ia IIC T4 Ga

-40°C ≤ Tamb ≤ +85°C



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1 of 3



L A Brisk
Assistant Certification Manager

METRIX DOC NO: 1934496
REV: B



CML 23UKEX2526X
Issue 0

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.

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+)

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



CML 23UKEX2526X
Issue 0

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)

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

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 are listed in the Annex.

13 Conditions of Manufacture

None.

14 Specific Conditions of Use

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 23UKEX2526X
Equipment MX2033 & MX2034 Digital Proximity System
Manufacturer Metrix Instrument Co.



The following documents describe the equipment 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
100972-AGENCY	1 of 1	B	31 Oct 2025	Schematic Dwg, DPS 1.35 Smart Transmitter with a 4-Pin Connector, Interconnect Board

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UK Type Examination Certificate – Equipment
Version: 9.0 Approval: Approved

METRIX DOC NO: 1934496
REV: B

Certificate Annex

Certificate Number CML 23UKEX2526X
Equipment MX2033 & MX2034 Digital Proximity System
Manufacturer Metrix Instrument Co.



Drawing No	Sheets	Rev	Approved Date	Title
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.

UK-TYPE EXAMINATION CERTIFICATE

Product or Protective Systems Intended for Use in Potentially Explosive Atmospheres

UKSI 2016:1107 (as amended) – Schedule 3A, Part 1

1. **UK-Type Examination Certificate Number:** ITS22UKEX0528X **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 and Certification Limited, Approved Body number 0359, in accordance with Regulation 42 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), 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 Schedule 1 of the Regulations.

The examination and test results are recorded in the confidential report 104968532DAL-002
Dated: 23-Aug-2022.
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 UK-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Regulations 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:

9 September 2022

METRIX DOC NO: 1934496
REV: A

SCHEDULE:

UK-Type Examination Certificate Number: ITS22UKEX0528X Issue 00

11. Description of Product 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 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: 1934496
REV: A

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 ITS22UKEX0533X.

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

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
Parts List for Assy, Adapter Board	9639-AGENCY	B	8/13/2018

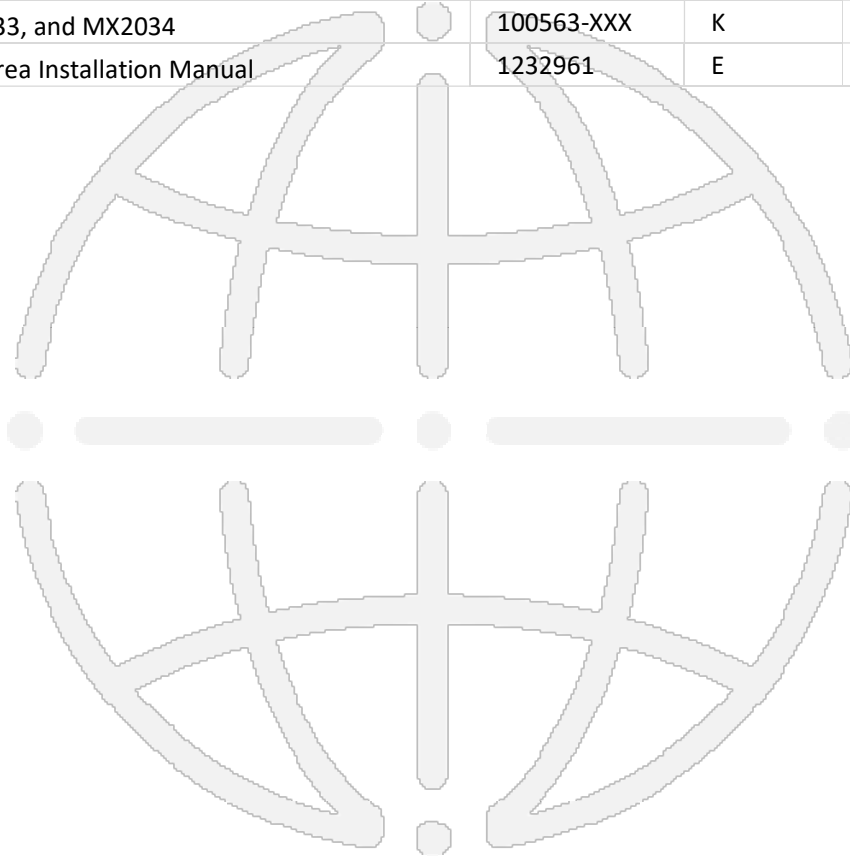
METRIX DOC NO: 1934496
REV: A

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 UKAS schedule 0010 Intertek Testing & Certification Limited, Cleve Road, Leatherhead, Surrey, KT22 7SA
Registered No 3272281 Registered Office: Academy Place, 1-9 Brook Street, Brentwood, Essex, CM14 5NQ.

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	7/16/2022
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
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

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Intertek Testing & Certification Limited, Cleve Road, Leatherhead, Surrey, KT22 7SA
Registered No 3272281 Registered Office: Academy Place, 1-9 Brook Street, Brentwood, Essex, CM14 5NQ.

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: 1934496
REV: A

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