

TYPE EXAMINATION CERTIFICATE

Product or Protective Systems Intended for Use in Potentially Explosive Atmospheres

UKSI 2016:1107 (as amended)

- Type Examination Certificate Number:** ITS22UKEX0533X Issue 00
- Product:** MX2033 & MX2034 Digital Proximity Systems
- Manufacturer:** Metrix Instrument Co.
- Address:** 8824 Fallbrook, Houston, Texas, 77064. USA
- This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- Intertek Testing and Certification Limited, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of the products intended for use in potentially explosive atmospheres given in Schedule 1 of UKSI 2016:1107 (as amended).
The examination and test results are recorded in the confidential report 104968532DAL-004
Dated: 23-Aug-2022.
- Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN IEC 60079-0:2018 and EN 60079-7:2015/A1:2018 except in respect of those requirements referred to within item 14 of the Schedule
- 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.
- This Type Examination Certificate relates only to the design of the specified product and not to specific items subsequently manufactured.
- The marking of the product shall include the following:



II 3G Ex ec IIC T4 Gc

-40°C ≤ Ta ≤ 85°C

Certification Officer:


Kevin Wolf

Date:

9 September 2022

METRIX DOC NO: 1934497
REV: A

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

SCHEDULE:

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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 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.

Rated supply voltage = 17V to 30V.

This equipment is certified to type Ex 'ia' by Type certificate ITS22UKEX0528X.

12. Report Number

Intertek Report: 104968532DAL-004 Issue: 00 Dated: August 23rd, 2022.

13. Conditions of Certification

(a). Special Conditions of Use

- The protection concept used must be irrevocably marked on the label during installation
- 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 60079-7 and is in an area of not more than pollution degree 2, as defined in IEC/EN 60664-1
- External transient supply limitation must be present that clamps at no more than 42V.

(b). Conditions of Manufacture - Routine Tests

- A routine dielectric strength test to EN 60079-7 Clause 7.1 is required. Either: Apply 500V a.c. or 700V d.c. for 60 seconds or Apply 600V a.c. or 840V d.c. for 100

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milliseconds between case and all electrical connections (terminal block and BNC).
The unit must not breakdown.

14. Essential Health and Safety Requirements (EHSRs)

The relevant Essential Health and Safety Requirements (EHSRs) affected by this variation have been identified and assessed in Intertek Report: 104968532DAL-004 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
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

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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
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

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