



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEX ETL 22.0017X** Page 1 of 3 [Certificate history:](#)
Status: **Current** Issue No: 0
Date of Issue: 2022-09-07
Applicant: **METRIX INSTRUMENT CO.**
8824 Fallbrook
Houston
TEXAS 77064
USA
United States of America
Equipment: **MX2033 & MX2034 Digital Proximity System (DPS)**
Optional accessory:
Type of Protection: **Increased Safety 'ec'**
Marking: Ex ec IIC T4 Gc
-40°C ≤ Ta ≤ 85°C
IECEX ETL 22.0017X

Approved for issue on behalf of the IECEx
Certification Body:

Kevin J. Wolf

Position:

Certification Officer

Signature:
(for printed version)

Date:
(for printed version)

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

Intertek
3933 US Route 11 South
Cortland NY 13045-2995
United States of America

intertek

METRIX DOC NO: 1456015
REV: C



IECEX Certificate of Conformity

Certificate No.: **IECEX ETL 22.0017X**

Page 2 of 3

Date of issue: 2022-09-07

Issue No: 0

Manufacturer: **METRIX INSTRUMENT CO.**
8824 Fallbrook
Houston
TEXAS 77064
USA
United States of America

Manufacturing locations: **METRIX INSTRUMENT CO.**
8824 Fallbrook
Houston
TEXAS 77064
USA
United States of America

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEX Quality system requirements. This certificate is granted subject to the conditions as set out in IECEX Scheme Rules, IECEX 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

[IEC 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC 60079-7:2017](#) Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

[US/ETL/ExTR22.0043/00](#)

Quality Assessment Report:

[GB/BAS/QAR10.0017/08](#)



IECEX Certificate of Conformity

Certificate No.: **IECEX ETL 22.0017X**

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Date of issue: 2022-09-07

Issue No: 0

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

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

Rated supply voltage = 17V to 30V.

SPECIFIC CONDITIONS OF USE: YES as shown below:

Special Conditions of Use:

- 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.

Annex:

[IECEX ETL 22.0017X Annex_1.pdf](#)



Annex to IECEx Certificate of Conformity

Certificate No:	IECEX ETL 22.0017X	Issue No. 0
Annex No. 1		

Technical Documents				
#	Title:	Drawing No.:	Rev. Level:	Date:
1	Schematic, DPS, Analag/Digital Board	100495-AGENCY-DWG	J	8/13/2018
2	BOM, MX2032/MX2034 Controller Board (Agency)	100497-AGENCY	L	8/30/2021
3	BOM, MX2033 Controller Board (AGENCY)	100500-AGENCY	L	10/28/2021
4	Assembly, DPS, Analog/Digital Board	100497-AGENCY-DWG	E	8/13/2018
5	Fabrication Dwg, Analog PCB, MX2032, MX2033 & MX2034 (Agency)	100496-AGENCY-DWG	J	8/13/2018
6	Parts List for Assy, Adapter Board	9639-AGENCY	B	8/13/2018
7	Assy, Adapter Board (Agency)	9639-AGENCY-DWG	B	8/13/2018
8	Schematic, DPS, Power Supply Bd.	100492-AGENCY-DWG	H	8/13/2018
9	BOM, "MX2034 POWER SUPPLY BOARD"	100494-AGENCY	V	7/16/2022
10	Assy, DPS, Power Supply Bd.	100494-AGENCY-DWG	C	8/13/2018
11	Drill Dwg, Power Supply, MX2032 & MX2034 (Agency)	100493-AGENCY-DWG	E	8/13/2018
12	Schematic, DPS, Power Supply Bd.	100486-AGENCY-DWG	J	8/13/2018
13	BOM, "MX2033 POWER SUPPLY BOARD"	100491-AGENCY	N	8/20/2021
14	Assy, DPS, Power Supply Bd. (Agency)	100491-AGENCY-DWG	B	8/13/2018
15	Drill Dwg, Power Supply, MX2033 (Agency)	100487-AGENCY-DWG	G	8/13/2018
16	Schematic, DPS, Interconnect Bd.	100501-AGENCY-DWG	D	7/29/2021
17	BOM, DPS Interconnect Board (Agency)	100503-AGENCY	G	8/3/2021
18	Assy, DPS, Interconnect Bd. (Agency)	100503-AGENCY-DWG	C	7/29/2021
19	Drill Dwg, Interconnect PCB, MX2032, MX2033 & MX2034 (Agency)	100502-AGENCY-DWG	D	9/28/2021
20	Schem Dwg, MX2033/MX2034 interconnect board, RoHS, Agency	100972-AGENCY-DWG	B	5/7/2020
21	Drill Dwg, MX2033/MX2034 interconnect board, RoHS, Agency	100973-AGENCY-DWG	C	4/29/2021
22	Parts List, MX2033/MX2034 interconnect board, RoHS, Agency	100974-AGENCY	B	5/7/2020
23	Assy Dwg, MX2033/MX2034 interconnect board, RoHS, Agency	100974-AGENCY-DWG	B	5/7/2020
24	100974 Interconnect Board MX2034, 3 Pin Connector (94019-107) or 4 Pin Connector (94019-108) Modification Procedure	1862198-AGENCY	A	6/1/2019
25	100974 Interconnect Board for MX2033, 3 Pin Connector (94019-107) Modification Procedure	1881628-AGENCY	A	6/1/2019
26	Label, MX2032, MX2033 & MX2034	100563-XXX-AGENCY	C	5/5/2021
27	Label, Top, MX2032, MX2033 & MX2034	100511-XXX-AGENCY-DWG	C	4/12/2022
28	General Arrangement Drawing	1082695-AGENCY	E	8/13/2018

Certificate issued by:



Total Quality. Assured.

Intertek Testing Services NA
3933 US Route 11 Cortland NY
13045 USA

SFT-IECEX-OP-19f (26 October 2018)

Page 1 of 2

METRIX DOC NO: 1456015
 REV: C



Annex to IECEx Certificate of Conformity

Certificate No:	IECEX ETL 22.0017X	Issue No. 0
Annex No. 1		

Technical Documents				
#	Title:	Drawing No.:	Rev. Level:	Date:
29	Intrinsically Safe Installation (Intertek) MX2033 & MX2034	100506-DWG	C	4/29/2022
30	Installation, (ATEX IECEx), MX2032, MX2033, & MX2034	100508-DWG	C	4/29/2022
31	Zone 2 Installation (ATEX IECEx), MX2032, MX2033, & MX2034	100515-DWG	C	4/29/2022
32	SCD, connector, screwless term block, 3 pos, 3.5mm, RoHS	94019-107-SCD	E	9/11/2020
33	SCD, connector, screwless term block, 4 pos, 3.5mm, RoHS	94019-108-SCD	E	9/11/2020
34	Div. 2 Installation (Intertek) MX2033/MX2034	100512-DWG	D	4/25/2022
35	Label, MX2033, and MX2034	100563-XXX	K	4/29/2022
36	Hazardous Area Installation Manual	1232961	E	April 2022

Required Manufacturer Routine Testing		
Test	Title/Description of Test	Standard and Clause
1	Routine Dielectric Strength Test Either: Apply 500V a.c. or 700V d.c. for 60 seconds or Apply 600V a.c. or 840V d.c. for 100 millisecond between case and all electrical connections (terminal block and BNC). The unit must not breakdown.	IEC 60079-7 Clause 7.1



The following pages are the prior revisions of this certificate.



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEX BAS 12.0033X** Page 1 of 4 Certificate history:
Issue 0 (2015-07-16)

Status: **Current** Issue No: 1

Date of Issue: 2019-10-25

Applicant: **Metrix Instrument Company**
8824 Fallbrook
Houston
Texas 77064
United States of America

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

Optional accessory:

Type of Protection: **Type n**

Marking: **Ex nA IIC T4 Gc (-40°C ≤ Ta ≤ +85°C)**
Supply = 17 to 30V d.c.

Approved for issue on behalf of the IECEx
Certification Body:

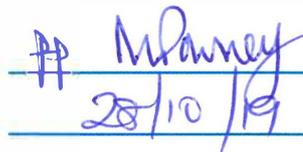
R S Sinclair

Position:

Technical Manager

M POWNEY
Certification
Manager

Signature:
(for printed version)


28/10/19

Date:

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Certificate issued by:

SGS Baseefa Limited
Rockhead Business Park
Staden Lane
Buxton, Derbyshire, SK17 9RZ
United Kingdom





IECEX Certificate of Conformity

Certificate No.: **IECEX BAS 12.0033X** Page 2 of 4

Date of issue: 2019-10-25 Issue No: 1

Manufacturer: **Metrix Instrument Company**
8824 Fallbrook
Houston
Texas 77064
United States of America

Additional manufacturing locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEX Quality system requirements. This certificate is granted subject to the conditions as set out in IECEX Scheme Rules, IECEX 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0

IEC 60079-15:2010 Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition:4

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

[GB/BAS/ExTR12.0040/00](#)

[GB/BAS/ExTR18.0206/00](#)

Quality Assessment Report:

[GB/BAS/QAR10.0017/06](#)



IECEx Certificate of Conformity

Certificate No.: **IECEx BAS 12.0033X**

Page 3 of 4

Date of issue: 2019-10-25

Issue No: 1

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

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.

SPECIFIC CONDITIONS OF USE: YES as shown below:

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.



IECEx Certificate of Conformity

Certificate No.: **IECEx BAS 12.0033X**

Page 4 of 4

Date of issue: 2019-10-25

Issue No: 1

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Variation 1.1

To permit minor electrical changes, the addition of the model MX2034-AA-BB-CC-DD-EE-FF (where EE = X4 X5 or X6) that has a dynamic signal output capability, and minor drawing changes.

ExTR: **GB/BAS/ExTR18.0206/00**

File Reference: **18/0441**



The following pages are the prior revisions of this certificate.



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INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx BAS 12.0033X issue No.:0 Certificate history:

Status: Current

Date of Issue: 2015-07-16 Page 1 of 3

Applicant: **Metrix Instrument Company**
8824 Fallbrook, Houston, Texas 77064
United States of America

Electrical Apparatus: **MX2032, MX2034 & MX2033 Digital Proximity Systems**
Optional accessory:

Type of Protection: **Type n**

Marking: **Ex nA IIC T4 Gc (-40°C ≤ Ta ≤ +85°C)**
Supply = 17 to 30V d.c.

Approved for issue on behalf of the IECEx Certification Body: R S Sinclair

Position: Technical Manager

Signature:
(for printed version)



16-7-15

Date:

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3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

SGS Baseefa Limited
Rockhead Business Park
Staden Lane
Buxton
Derbyshire
SK17 9RZ
United Kingdom





IECEx Certificate of Conformity

Certificate No.: IECEx BAS 12.0033X

Date of Issue: 2015-07-16

Issue No.: 0

Page 2 of 3

Manufacturer: **Metrix Instrument Company**
8824 Fallbrook, Houston, Texas 77064
United States of America

Additional Manufacturing location
(s):

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STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Explosive atmospheres - Part 0: General requirements
Edition: 6.0

IEC 60079-15 : 2010 Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition: 4

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:
[GB/BAS/ExTR12.0040/00](#)

Quality Assessment Report:
[GB/BAS/QAR10.0017/03](#)



IECEx Certificate of Conformity

Certificate No.: IECEx BAS 12.0033X

Date of Issue: 2015-07-16

Issue No.: 0

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

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.

CONDITIONS OF CERTIFICATION: YES as shown below:

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.

METRIX DOC NO: 1456015
REV: A