



Certificate of Compliance

Certificate: 1270898

Master Contract: 168872

Project: 80082161

Date Issued: 2022-03-31

Issued To: Metrix Instrument Co.
8824 Fallbrook Dr.
Houston, Texas, 77064
United States

Attention: Lance Truong

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.

Issued by: *Andrea Ongaro*
Andrea Ongaro



PRODUCTS

PART A

CLASS 2258 02 – PROCESS CONTROL EQUIPMENT- For Hazardous Locations

CLASS 2258 82 – PROCESS CONTROL EQUIPMENT- For Hazardous Locations – Certified to US Standards

Class I, Division 1, Groups B, C, and D; Class II, Division 1, Groups E, F, and G; T4 or T4A:

Vibration Transmitter, Model ST5484E, Model SW5484E, Rated supply 11-30Vdc; Output 4-20mA; CSA Enclosure Type 4X; Maximum Ambient Temperature 100°C.

1. The above model is permanently connected, Equipment Class III, Overvoltage Category I.
2. Mode of operation: Continuous
3. Environmental Conditions: -40 to 100 C, 2000 m max

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4. The Capped elbow shall be certified for Class I, Groups B, C and D; Class II, Groups E, F, and G; Class III, 8200-XXX-IEC or 8200-XXX is required for explosionproof installations as per drawing 9163-CSA-Agency.

PART B

CLASS 2258 04 – PROCESS CONTROL EQUIPMENT- Intrinsically Safe, Entity - For Hazardous Locations

CLASS 2258 84 – PROCESS CONTROL EQUIPMENT- Intrinsically Safe, Entity - For Hazardous Locations –
Certified to US Standards

Ex ia IIC T4 Ga

Class I, Zone 0, AEx ia IIC T4 Ga

Class I, Division 1, Groups A, B, C, and D T4

Vibration Transmitter, Model ST5484E; CSA Enclosure Type 4X; Maximum Ambient Temperature 100°C; Intrinsically Safe with the following Entity Parameters when connected as per drawing number 9426. $V_{max} = 29.6V$; $I_{max} = 100 \text{ mA}$; $C_i = 70.4nF$; $L_i = 0.5uH$.

1. The above model is permanently connected, Equipment Class III, Overvoltage Category I.
2. Mode of operation: Continuous
3. Environmental Conditions: -40 to 100 C, 2000 m max

Conditions of acceptability:

1. The aluminum capped elbow enclosure may be capable of producing incendive sparks when impacted. This equipment must be mounted and/or physically guarded such that it is not subjected to impact or friction.

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PART C

CLASS 2258 02 – PROCESS CONTROL EQUIPMENT- For Hazardous Locations

CLASS 2258 82 – PROCESS CONTROL EQUIPMENT- For Hazardous Locations – Certified to US Standards

Ex ec IIC T4 Gc

Class I, Zone 2, AEx ec IIC T4 Gc

Class I, Division 2, Groups A, B, C, and D T4

Vibration Transmitter, Model ST5484E, Model SW5484E, Rated supply 11-30Vdc; Output 4-20mA; CSA Enclosure Type 4X; Maximum Ambient Temperature 100°C.

1. The above model is permanently connected, Equipment Class III, Overvoltage Category I.
2. Mode of operation: Continuous
3. Environmental Conditions: -40 to 100 C, 2000 m max

Conditions of Acceptability:

1. Wiring to or from this equipment, which enters or leaves the system enclosure, must utilize wiring methods suitable for Class I, Division 2 and/or Class I, Zone 2 Hazardous Locations, as appropriate for the installation.
2. The cable glands shall be Ex e / AEx e certified or conduit fittings shall maintain at least a minimum of IP54 rating with the equipment.
3. Transient protection shall be provided that is set at a level not exceeding 140 % of the peak rated voltage value at the supply terminals to the equipment.

PART D

CLASS 2258 02 – PROCESS CONTROL EQUIPMENT- For Hazardous Locations

CLASS 2258 82 – PROCESS CONTROL EQUIPMENT- For Hazardous Locations – Certified to US Standards

Class I, Division 2, Groups A, B, C, and D T4

Vibration Transmitter, Model ST5484E, Rated supply 11-30Vdc; Output 4-20mA; CSA Enclosure Type 4X; Maximum Ambient Temperature 100°C.

1. The above model is permanently connected, Equipment Class III, Overvoltage Category I.
2. Mode of operation: Continuous
3. Environmental Conditions: -40 to 100 C, 2000 m max

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APPLICABLE REQUIREMENTS

Part A

CSA Std. C22.2 No. 25-1966 - Enclosures for Use in Class II, Groups E, F and G Hazardous Locations
CSA Std. C22.2 No. 30-1986 - Explosion-Proof Enclosures for Use in Class I, Hazardous Locations
CSA Std. C22.2 No. 94-M91 - Special Purpose Enclosures
CSA Std. C22.2 No. 61010-1-12 - Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use, Part 1: General Requirements
UL Std. No. 61010-1 (3rd Edition) - Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 1: General Requirement
UL Std. 50, 11th Edition - Enclosures for Electrical Equipment
UL Std. 1203-Third Edition - Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations.

Part B

CSA Std. C22.2 No. 94-M91 - Special Purpose Enclosures
CSA Std. C22.2 No. 60079-0:2019 – Explosive Atmospheres – Equipment, General Requirements
CSA Std. C22.2 No. 60079-11:2014 – Equipment Protection by Intrinsic Safety “i”
CSA Std. C22.2 No. 61010-1-12 - Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use, Part 1: General Requirements
UL Std. No. 61010-1 (3rd Edition) - Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 1: General Requirement
UL Std. 50, 11th Edition - Enclosures for Electrical Equipment
UL Std. No. 913-Sixth Edition - Intrinsically Safe Apparatus and Associated Apparatus for use in Class I, II, III, Division 1, Hazardous (Classified) Locations.
UL 60079-0 Seventh Edition - Explosive Atmospheres – Equipment, General Requirements
UL 60079-11 Sixth Edition - Equipment Protection by Intrinsic Safety “i”

Part C

CSA Std. C22.2 No. 94-M91 - Special Purpose Enclosures
CSA Std. C22.2 No. 60079-0:2019 – Explosive Atmospheres – Equipment, General Requirements
CSA Std. C22.2 No. 60079-7:2016 – Equipment Protection by Increased Safety “e”
CSA Std. C22.2 No. 61010-1-12 - Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use, Part 1: General Requirements
UL Std. No. 61010-1 (3rd Edition) - Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 1: General Requirement
UL Std. 50, 11th Edition - Enclosures for Electrical Equipment
UL 60079-0 Seventh Edition - Explosive Atmospheres – Equipment, General Requirements
UL 60079-7 Fifth Edition – Equipment Protection by Increased Safety “e”

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Part D

CSA Std. C22.2 No. 94-M91 - Special Purpose Enclosures
CSA Std. C22.2 No. 213-1987 - Non-Incendive Electrical Equipment for use in Class I, Division 2 Hazardous Locations
CSA Std. C22.2 No. 61010-1-12 - Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use, Part 1: General Requirements
UL Std. No. 61010-1 (3rd Edition) - Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 1: General Requirement
UL Std. 50, 11th Edition - Enclosures for Electrical Equipment
ANSI/ISA-12.12.01-2011 - Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations

MARKINGS

The manufacturer is required to apply the following markings:

- Products shall be marked with the markings specified by the particular product standard.
- Products certified for Canada shall have all Caution and Warning markings in both English and French.

Additional bilingual markings not covered by the product standard(s) may be required by the Authorities Having Jurisdiction. It is the responsibility of the manufacturer to provide and apply these additional markings, where applicable, in accordance with the requirements of those authorities.

The products listed are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US (indicating that products have been manufactured to the requirements of both Canadian and U.S. Standards) or with adjacent indicator 'US' for US only or without either indicator for Canada only.

All units shall have the following markings along with the additional markings as noted for a given approval rating:

- (1) Manufacturer's name, trademark, or the CSA file number (adjacent to the CSA Mark).
- (2) Model designation: As specified in the PRODUCTS section, above.
- (3) Electrical ratings: (amps, hertz, and volts). As specified in the PRODUCTS section, above.
- (4) Manufacturing date in MMY format, or serial number, traceable to year and month of manufacture.
- (5) Enclosure ratings: As specified in the PRODUCTS section, above.
- (6) Temperature code: As specified in the PRODUCTS section, above.
- (7) Ambient temperature rating: As specified in the PRODUCTS section, above.
- (8) The CSA Mark, as shown on the Certificate of Conformity.

For Intrinsically Safe units:

- (1) "Exia; Intrinsically Safe for Class I, Groups. A, B, C, D when installed as per drawing 9426" and "Exia; Sécurité intrinsèque pour les groupes de classe I. A, B, C, D si installé selon le dessin 9426"

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For ExplosionProof. rated units:

- (1) Certified Explosion proof, Class I, Group B, C, D; Class II, Group E, F, G.
- (2) **“SEAL NOT REQUIRED”**.
- (3) **“CAUTION – DO NOT OPEN WHEN EXPLOSIVE ATMOSPHERE IS PRESENT”** and **“ATTENTION – NE PAS OUVRIR EN PRÉSENCE D’UNE ATMOSPHERE EXPLOSIVE”** or equivalent

For Div. 2 rated units:

- (1) Class I, Div. 2, Groups A, B, C, and D.

Refer to Illustration 1 for more details.

Refer to Figure 6 for installation drawing.

Note: The c and us or NRTL/c indicators may appear adjacent to the CSA Mark.

Method of Marking: Etched on housing with all required markings

Applicable markings as per CSA C22.2 No. 61010-1-12/ UL No. 61010-1 (3rd Edition) Standards requirements:

The manufacturer is required to apply the following markings:

- Products shall be marked with the markings specified by the particular product standard.
- Products certified for Canada shall have all Caution and Warning markings in both English and French.

Additional bilingual markings not covered by the product standard(s) may be required by the Authorities Having Jurisdiction. It is the responsibility of the manufacturer to provide and apply these additional markings, where applicable, in accordance with the requirements of those authorities.

The products listed are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US (indicating that products have been manufactured to the requirements of both Canadian and U.S. Standards) or with adjacent indicator 'US' for US only or without either indicator for Canada only.

The following markings appear on the product:

1. Submitter's identification (company name and/or file number and/or registered tradename);
2. Model designation: As specified in the PRODUCTS section, above.
3. Electrical ratings: As specified in the PRODUCTS section, above.
4. Ambient temperature rating: As specified in the PRODUCTS section, above.
5. Enclosure ratings: As specified in the PRODUCTS section, above.
6. Hazardous Location designation: As specified in the PRODUCTS section, above. The word “Class” may be abbreviated “CL”, the word “Division” may be abbreviated “DIV”, and the word “Groups” may be abbreviated “GRP” or “GP”.
7. Temperature code: As specified in the PRODUCTS section, above.
8. Date of manufacture: Month and year of manufacture or date code. If a serial number is used instead of date of manufacture, a record of serial numbers shall be kept traceable to date of manufacture. (Not related to date of sale).

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9. The products listed are eligible to bear the CSA Mark shown with adjacent indicators ‘C’ and ‘US’ for Canada and US, or with adjacent indicator ‘US’ for US only, or without either indicator for Canada

only:  , or  , or  .

10. Following symbols shall be included in the marking:

- Direct current



8. Models which are not protected by intrinsic safety shall include the following markings or equivalent:
“Use wire rated $\geq 105^{\circ}\text{C}$ ” and “Utiliser un câble $\geq 105^{\circ}\text{C}$ ”

Method of Marking: The above markings are laser engraved on the enclosure of the product.

Notes:

Products certified under Class C225802, C225804, C225882, C225884 have been certified under CSA’s ISO/IEC 17065 accreditation with the Standards Council of Canada (SCC).
www.scc.ca



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Supplement to Certificate of Compliance

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The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

Product Certification History

Project	Date	Description
80082161	2022-03-31	<ul style="list-style-type: none">• Addition of model SW5484E meeting Increased Safety and Explosion Proof requirements. The SW5484E model is identical to the existing ST5484E model with the addition of a PCB. The SW5484E has a 8 wire/pin for connection, whereas the ST5484E has a 2/4 wire/pin.• Assessment of existing model ST5484E against Increased Safety requirements.• Update to CAN/CSA C22.2 No. 60079-11:2014• Update to UL 60079-11 Sixth Edition• Related drawing updates
70210796	2019-03-27	Possible update to CSA report #1270898 to include ST5484E new model, consisting of the ST5484E velocity transmitter connected to a Explosion Proof Elbow. Quote assumes testing is not required, and ordinary locations project is completed.
2724658	2014-08-14	Update report 1270898 to correct an existing typographical error made while indicating the rated supply value and update drawings (i llustrations and figures).
2524703	2012-08-23	Update report 1270898 to include minor printed circuit board trace revision.
2422509	2011-10-25	Update of Report 1270898 to include alternate construction and Entity Parameter changes.
2272515	2010-02-18	Update of report 1270898 to update marking information per Factory Inspection Report.
1476140	2003-09-15	Update to 1270898 to include revised construction.
1413262	2003-04-04	Updated to 1270898 to add I.S. requirements.
1314586	2002-05-06	Update to 1270898 to cover Class I, Division 2, Groups A, B, C, and D
1270898	2002-02-27	Original Certification of Transmitter Model: ST5484E

METRIX DOC NO: 1185339
REV: D



The following pages are the prior revisions of this certificate.



Certificate of Compliance

Certificate: 1270898

Master Contract: 168872

Project: 70210796

Date Issued: March 27, 2019

Issued to: **Metrix Instrument Co.**
8824 Fallbrook Dr.
Houston, TX 77064
USA

Attention: **Lance Truong**

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.



Issued by: *Adrian Zilahi*
Adrian Zilahi, P.Eng

PRODUCTS

CLASS 2258 02 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations
CLASS 2258 82 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations - Certified to US Standards
CLASS 2258 04 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity - For Hazardous Locations
CLASS 2258 84 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity - - For Hazardous Locations - Certified to US Standards

2258 02 - PROCESS CONTROL EQUIPMENT- For Hazardous Locations

2258 82 - PROCESS CONTROL EQUIPMENT- For Hazardous Locations – Certified to US Standards

Class I, Groups B, C and D; Class I, Division 2, Groups A, B, C & D; Class II, Groups E, F & G; T4 or T4A

Vibration Transmitter, Model ST5484E, Rated supply 11-30Vdc; Output 4-20mA; CSA Enclosure Type 4X; Maximum Ambient Temperature 100°C.

1. The above model is permanently connected, Equipment Class III, Overvoltage Category I.
2. Mode of operation: Continuous

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REV: C



Certificate: 1270898
Project: 70210796

Master Contract: 168872
Date Issued: March 27, 2019

3. Environmental Conditions: -40 to 100 C, 2000 m max

2258 04 - PROCESS CONTROL EQUIPMENT- Intrinsicly Safe, Entity - For Hazardous Locations

2258 84 - PROCESS CONTROL EQUIPMENT- Intrinsicly Safe, Entity - For Hazardous Locations – Certified to US Standards

Class I, Groups A, B, C and D

Vibration Transmitter, Model ST5484E; CSA Enclosure Type 4X; Maximum Ambient Temperature 100°C; Temperature Code T4; Intrinsicly Safe with the following Entity Parameters when connected as per drawing number 9426. $V_{max} = 29.6V$; $I_{max} = 100\text{ mA}$; $C_i = 70.4\text{ nF}$; $L_i = 0.5\mu H$.

1. The above model is permanently connected, Equipment Class III, Overvoltage Category I.
2. Mode of operation: Continuous
3. Environmental Conditions: -40 to 100 C, 2000 m max

APPLICABLE REQUIREMENTS

CSA Standard C22.2 No. 0-10 - General Requirements - Canadian Electrical Code Part II

CSA Standard C22.2 No. 25-1966 - Enclosures for Use in Class II, Groups E, F and G Hazardous Locations

CSA Standard C22.2 No. 30-1986 - Explosion-Proof Enclosures for Use in Class I, Hazardous Locations

CSA Standard C22.2 No. 94-M91 - Special Purpose Enclosures

CSA Standard C22.2 No. 157-M1992 - Intrinsicly Safe and Non-Incendive Equipment for Use in Hazardous Locations

CSA Standard C22.2 No. 213- 1987 - Non-Incendive Electrical Equipment for use in Class I, Division 2 Hazardous Locations

CSA Standard C22.2 No. 61010-1-12 - Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use, Part 1: General Requirements

UL Std. No. 61010-1 (3rd Edition) - Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 1: General Requirement

UL Standard 50, 11th Edition - Enclosures for Electrical Equipment

UL Std. No. 913 - Sixth Edition - Intrinsicly Safe Apparatus and Associated Apparatus for use in Class I, II, III, Division 1, Hazardous (Classified) Locations.

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UL Std. No. 1203 Third Edition - Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations.

ANSI/ISA-12.12.01-2011 - Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations

MARKINGS

All units shall have the following markings along with the additional markings as noted for a given approval rating:

- (1) Submitter's name, trademark, or the CSA file number (adjacent to the CSA Mark).
- (2) Catalogue / Model designation.
- (3) Complete electrical rating (amps, hertz, and volts).
- (4) Date code / Serial number traceable to month and year of manufacture.
- (5) Special purpose enclosure designation, "Type"
- (6) Temperature Code Rating
- (7) Maximum Ambient Temperature
- (8) The CSA Mark

For Intrinsically Safe units:

- (1) Exia; Intrinsically Safe for Class I, Groups. A, B, C, D when installed as per drawing 9426

For E.P. rated units:

- (1) Certified Explosion proof, Class I, Group B, C, D; Class II, Group E, F, G.
- (2) **“SEAL NOT REQUIRED”**.

For Div. 2 rated units:

- (1) Class I, Div. 2, Groups A, B, C and D.

Refer to Illustration 1 for more details.

Refer to Figure 6 for installation drawing.

Note: The c and us or NRTL/c indicators may appear adjacent to the CSA Mark.

Applicable markings as per CSA C22.2 No. 61010-1-12/ UL No. 61010-1 (3rd Edition) Standards requirements:

The manufacturer is required to apply the following markings:

- Products shall be marked with the markings specified by the particular product standard.
- Products certified for Canada shall have all Caution and Warning markings in both English and French.

METRIX DOC NO: 1185339 REV: C



Certificate: 1270898
Project: 70210796

Master Contract: 168872
Date Issued: March 27, 2019

Additional bilingual markings not covered by the product standard(s) may be required by the Authorities Having Jurisdiction. It is the responsibility of the manufacturer to provide and apply these additional markings, where applicable, in accordance with the requirements of those authorities.

The products listed are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US (indicating that products have been manufactured to the requirements of both Canadian and U.S. Standards) or with adjacent indicator 'US' for US only or without either indicator for Canada only.

The following markings appear on the product:

1. Submitter's identification (company name and/or file number and/or registered tradename);
2. Model designation;
3. Electrical rating;
4. Environmental Type rating: 4X
5. Date of manufacture: Month and year of manufacture or date code. If a serial number is used instead of date of manufacture, a record of serial numbers shall be kept traceable to date of manufacture. (Not related to date of sale).
6. The products listed are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US, or with adjacent indicator 'US' for US only, or without either indicator for

Canada only: , or , or .

7. Following symbols shall be included in the marking:

- Direct current 

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REV: C



Supplement to Certificate of Compliance

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The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

Product Certification History

Project	Date	Description
70210796	March 27, 2019	Update to CSA report #1270898 to include ST5484E new model, consisting of the ST5484E velocity transmitter connected to an Explosion Proof Elbow, and addition of CSA C22.2 No. 61010-1-12/ UL No. 61010-1 (3rd Edition) Standards.
2724658	August 14, 2014	Update report 1270898 to correct an existing typographical error made while indicating the rated supply value and update drawings (illustrations and figures).
2524703	August 23, 2012	Update report 1270898 to include minor printed circuit board trace revision.
2422509	October 25, 2011	Update of Report 1270898 to include alternate construction and Entity Parameter changes.
2272515	February 18, 2010	Update of report 1270898 to update marking information per Factory Inspection Report.

History

1476140	September 15, 2003	Update to 1270898 to include revised construction.
1413262	April 04, 2003	Update to 1270898 to add I.S. requirements.
1314586	May 06, 2002	Update to 1270898 to cover Class I, Division 2, Groups A, B, C and D.
1270898	February 27, 2002	Original Certification of Transmitter Model: ST5484E

METRIX DOC NO: 1185339
REV: C



The following pages are the prior revisions of this certificate.



Certificate of Compliance

Certificate: 1270898

Master Contract: 168872

Project: 2724658

Date Issued: August 14, 2014

Issued to: Metrix Instrument Co.

8824 Fallbrook Dr.

Houston, TX 77064

USA

Attention: Lance Truong

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.



Virali Shah

Issued by: Virali Shah

PRODUCTS

CLASS 2258 02 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations

CLASS 2258 82 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations -
Certified to US Standards

CLASS 2258 04 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity - For
Hazardous Locations

CLASS 2258 84 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity - - For
Hazardous Locations - Certified to US Standards

2258 02 – PROCESS CONTROL EQUIPMENT- For Hazardous Locations

2258 82 – PROCESS CONTROL EQUIPMENT- For Hazardous Locations – Certified to US Standards

Class I, Groups B, C and D; Class I, Division 2, Groups A, B, C & D; Class II, Groups E, F & G; T4 or T4A

Vibration Transmitter, Model ST5484E, Rated supply 11-30Vdc; Output 4-20mA; CSA Enclosure Type 4X;
Maximum Ambient Temperature 100°C.

METRIX DOC NO: 1185339
REV: B



Certificate: 1270898

Master Contract: 168872

Project: 2724658

Date Issued: August 14, 2014

2258 04– PROCESS CONTROL EQUIPMENT- Intrinsically Safe, Entity - For Hazardous Locations

2258 84– PROCESS CONTROL EQUIPMENT- Intrinsically Safe, Entity - For Hazardous Locations –
Certified to US Standards

Class I, Groups A, B, C and D

Vibration Transmitter, Model ST5484E; CSA Enclosure Type 4X; Maximum Ambient Temperature 100°C; Temperature Code T4; Intrinsically Safe with the following Entity Parameters when connected as per drawing number 9426. $V_{max} = 29.6V$; $I_{max} = 100 \text{ mA}$; $C_i = 70.4 \text{ nF}$; $L_i = 0.5\mu\text{H}$.

APPLICABLE REQUIREMENTS

CSA Standard C22.2 No. 0-10 - General Requirements - Canadian Electrical Code Part II

CSA Standard C22.2 No. 25-1966 - Enclosures For Use in Class II, Groups E, F and G Hazardous Locations

CSA Standard C22.2 No. 30-1986 - Explosion-Proof Enclosures for Use in Class I, Hazardous Locations

CSA Standard C22.2 No. 94-M91 - Special Purpose Enclosures

CSA Standard C22.2 No. 142-1987 - Process Control Equipment

CSA Standard C22.2 No. 157-M1992 - Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations

CSA Standard C22.2 No. 213- 1987 - Non-Incendive Electrical Equipment for use in Class I, Division 2 Hazardous Locations

UL Standard 50, 11th Edition - Enclosures for Electrical Equipment

UL Std. No. 913 - Sixth Edition - Intrinsically Safe Apparatus and Associated Apparatus for use in Class I, II, III, Division 1, Hazardous (Classified) Locations.

UL Std. No. 1203 Third Edition - Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations.

ANSI/ISA-12.12.01-2011 - Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations

MARKINGS



Certificate: 1270898

Master Contract: 168872

Project: 2724658

Date Issued: August 14, 2014

All units shall have the following markings along with the additional markings as noted for a given approval rating:

- (1) Submittor's name, trademark, or the CSA file number (adjacent to the CSA Mark).
- (2) Catalogue / Model designation.
- (3) Complete electrical rating (amps, hertz, and volts).
- (4) Date code / Serial number traceable to month and year of manufacture.
- (5) Special purpose enclosure designation, "Type"
- (6) Temperature Code Rating
- (7) Maximum Ambient Temperature
- (8) The CSA Mark

For Intrinsically Safe units:

- (1) Exia; Intrinsically Safe for Class I, Groups. A, B, C, D when installed as per drawing 9426

For E.P. rated units:

- (1) Certified Explosion proof, Class I, Group B, C, D; Class II, Group E, F, G.
- (2) **“SEAL NOT REQUIRED”**.

For Div. 2 rated units:

- (1) Class I, Div. 2, Groups A,B,C and D.

Refer to Illustration 1 for more details.

Refer to Figure 6 for installation drawing.

Note: The c and us or NRTL/c indicators may appear adjacent to the CSA Mark.



Supplement to Certificate of Compliance

Certificate: 1270898

Master Contract: 168872

The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

Product Certification History

Project	Date	Description
2724658	Aug 14, 2014	Update report 1270898 to correct an existing typographical error made while indicating the rated supply value and update drawings (illustrations and figures).
2524703	Aug 23, 2012	Update report 1270898 to include minor printed circuit board trace revision.
2422509	Oct 25, 2011	Update of Report 1270898 to include alternate construction and Entity Parameter changes.
2272515	Feb 18, 2010	Update of report 1270898 to update marking information per Factory Inspection Report.

History

1476140 September 15, 2003 Update to 1270898 to include revised construction.

1413262 April 4, 2003 Update to 1270898 to add I.S. requirements.

1314586 May 6, 2002 Update to 1270898 to cover Class I, Division 2, Groups A, B, C and D.

1270898 February 27, 2002 Original Certification of Transmitter Model: ST5484E



The following pages are the prior revisions of this certificate.



Certificate of Compliance

Certificate: 1270898

Master Contract: 168872

Project: 2524703

Date Issued: August 23, 2012

Issued to: Metrix Instrument Co.

8824 Fallbrook Dr.
Houston, TX 77064
USA

Attention: Stephen Kraig

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.



Ron Wachowicz

Issued by: Ron Wachowicz, C.E.T.

PRODUCTS

- CLASS 2258 02** - PROCESS CONTROL EQUIPMENT - For Hazardous Locations
- CLASS 2258 82** - PROCESS CONTROL EQUIPMENT - For Hazardous Locations - Certified to US Standards
- CLASS 2258 04** - PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity - For Hazardous Locations
- CLASS 2258 84** - PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity - - For Hazardous Locations - Certified to US Standards

2258 02 – PROCESS CONTROL EQUIPMENT- For Hazardous Locations

2258 82 – PROCESS CONTROL EQUIPMENT- For Hazardous Locations – Certified to US Standards

Class I, Groups B, C and D; Class I, Division 2, Groups A, B, C & D; Class II, Groups E, F & G; T4 or T4A

Vibration Transmitter, Model ST5484E, Rated supply 12-30Vdc; Output 4-20mA; CSA Enclosure Type 4X; Maximum Ambient Temperature 100°C.

METRIX DOC NO: 1185339
REV: A



Certificate: 1270898

Master Contract: 168872

Project: 2524703

Date Issued: August 23, 2012

2258 04– PROCESS CONTROL EQUIPMENT- Intrinsically Safe, Entity - For Hazardous Locations

2258 84– PROCESS CONTROL EQUIPMENT- Intrinsically Safe, Entity - For Hazardous Locations –
Certified to US Standards

Class I, Groups A, B, C and D

Vibration Transmitter, Model ST5484E; CSA Enclosure Type 4X; Maximum Ambient Temperature 100°C; Temperature Code T4; Intrinsically Safe with the following Entity Parameters when connected as per drawing number 9426. $V_{max} = 29.6V$; $I_{max} = 100 \text{ mA}$; $C_i = 70.4 \text{ nF}$; $L_i = 0.5\mu H$.

APPLICABLE REQUIREMENTS

CSA Standard C22.2 No. 0-10 - General Requirements - Canadian Electrical Code Part II

CSA Standard C22.2 No. 25-1966 - Enclosures For Use in Class II, Groups E, F and G Hazardous Locations

CSA Standard C22.2 No. 30-1986 - Explosion-Proof Enclosures for Use in Class I, Hazardous Locations

CSA Standard C22.2 No. 142-1987 - Process Control Equipment

CSA Standard C22.2 No. 157-M1992 - Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations

CSA Standard C22.2 No. 213- 1987 - Non-Incendive Electrical Equipment for use in Class I, Division 2 Hazardous Locations

UL Std. No. 913 - Sixth Edition - Intrinsically Safe Apparatus and Associated Apparatus for use in Class I, II, III, Division 1, Hazardous (Classified) Locations.

UL Std. No. 1203 Third Edition - Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations.

ANSI/ISA-12.12.01-2011 - Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations

UL Std. No. 1604 Third Edition - Electrical Equipment for Use in Class I and II, Division 2, and Class III Hazardous (Classified) Locations.

MARKINGS

All units shall have the following markings along with the additional markings as noted for a given approval rating:



Certificate: 1270898

Master Contract: 168872

Project: 2524703

Date Issued: August 23, 2012

- (1) Submitter's name, trademark, or the CSA file number (adjacent to the CSA Mark).
- (2) Catalogue / Model designation.
- (3) Complete electrical rating (amps, hertz, and volts).
- (4) Date code / Serial number traceable to month and year of manufacture.
- (5) Special purpose enclosure designation, "Type"
- (6) Temperature Code Rating
- (7) Maximum Ambient Temperature
- (8) The CSA Mark

For Intrinsically Safe units:

- (1) Exia; Intrinsically Safe for Class I, Groups. A, B, C, D when installed as per drawing 9426

For E.P. rated units:

- (1) Certified Explosion proof, Class I, Group B, C, D; Class II, Group E, F, G.
- (2) **“SEAL NOT REQUIRED”**.

For Div. 2 rated units:

- (1) Class I, Div. 2, Groups A,B,C and D.

Refer to Illustration 1 for more details.

Refer to Figure 6 for installation drawing.

Note: The c and us or NRTL/c indicators may appear adjacent to the CSA Mark.

The following pages are the prior revisions of this certificate.



Certificate of Compliance

Certificate: 1270898

Master Contract: 168872

Project: 2422509

Date Issued: October 25, 2011

Issued to: Metrix Instrument Co.

8824 Fallbrook Dr.
Houston, TX 77064
USA

Attention: Ryan Hunnicutt

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.



Jay McVeigh

Issued by: Jay McVeigh

PRODUCTS

- CLASS 2258 82** - PROCESS CONTROL EQUIPMENT - For Hazardous Locations - Certified to US Standards
- CLASS 2258 02** - PROCESS CONTROL EQUIPMENT - For Hazardous Locations
- CLASS 2258 84** - PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity - - For Hazardous Locations - Certified to US Standards
- CLASS 2258 04** - PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity - For Hazardous Locations

2258 02 – PROCESS CONTROL EQUIPMENT- For Hazardous Locations

2258 82 – PROCESS CONTROL EQUIPMENT- For Hazardous Locations – Certified to US Standards

Class I, Groups B, C and D; Class I, Division 2, Groups A, B, C & D; Class II, Groups E, F & G; T4 or T4A

Vibration Transmitter, Model ST5484E, Rated supply 12-30Vdc; Output 4-20mA; CSA Enclosure Type 4X; Maximum Ambient Temperature 100°C.

METRIX DOC NO: 1185339 REV: A



Certificate: 1270898

Master Contract: 168872

Project: 2422509

Date Issued: October 25, 2011

2258 04– PROCESS CONTROL EQUIPMENT- Intrinsically Safe, Entity - For Hazardous Locations

2258 84– PROCESS CONTROL EQUIPMENT- Intrinsically Safe, Entity - For Hazardous Locations –
Certified to US Standards

Class I, Groups A, B, C and D

Vibration Transmitter, Model ST5484E; CSA Enclosure Type 4X; Maximum Ambient Temperature 100°C; Temperature Code T4; Intrinsically Safe with the following Entity Parameters when connected as per drawing number 9426. $V_{max} = 29.6V$; $I_{max} = 100 \text{ mA}$; $C_i = 70.4 \text{ nF}$; $L_i = 0.5\mu H$.

APPLICABLE REQUIREMENTS

CSA Standard C22.2 No. 0-10 - General Requirements - Canadian Electrical Code Part II

CSA Standard C22.2 No. 25-1966 - Enclosures For Use in Class II, Groups E, F and G Hazardous Locations

CSA Standard C22.2 No. 30-1986 - Explosion-Proof Enclosures for Use in Class I, Hazardous Locations

CSA Standard C22.2 No. 142-1987 - Process Control Equipment

CSA Standard C22.2 No. 157-M1992 - Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations

CSA Standard C22.2 No. 213- 1987 - Non-Incendive Electrical Equipment for use in Class I, Division 2 Hazardous Locations

UL Std. No. 913 - Sixth Edition - Intrinsically Safe Apparatus and Associated Apparatus for use in Class I, II, III, Division 1, Hazardous (Classified) Locations.

UL Std. No. 1203 Third Edition - Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations.

ANSI/ISA-12.12.01-2011 - Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations

UL Std. No. 1604 Third Edition - Electrical Equipment for Use in Class I and II, Division 2, and Class III Hazardous (Classified) Locations.

MARKINGS

All units shall have the following markings along with the additional markings as noted for a given approval rating:



Certificate: 1270898

Master Contract: 168872

Project: 2422509

Date Issued: October 25, 2011

- (1) Submitter's name, trademark, or the CSA file number (adjacent to the CSA Mark).
- (2) Catalogue / Model designation.
- (3) Complete electrical rating (amps, hertz, and volts).
- (4) Date code / Serial number traceable to month and year of manufacture.
- (5) Special purpose enclosure designation, "Type"
- (6) Temperature Code Rating
- (7) Maximum Ambient Temperature
- (8) The CSA Mark

For Intrinsically Safe units:

- (1) Exia; Intrinsically Safe for Class I, Groups. A, B, C, D when installed as per drawing 9426

For E.P. rated units:

- (1) Certified Explosion proof, Class I, Group B, C, D; Class II, Group E, F, G.
- (2) **“SEAL NOT REQUIRED”**.

For Div. 2 rated units:

- (1) Class I, Div. 2, Groups A,B,C and D.

Refer to Illustration 1 for more details.

Refer to Figure 6 for installation drawing.

Note: The c and us or NRTL/c indicators may appear adjacent to the CSA Mark.



Certificate of Compliance

Certificate: 1270898

Master Contract: 168872

Project: 2272515

Date Issued: 2010/02/18

Issued to: Metrix Instrument Co.

8824 Fallbrook Dr.

Houston, TX 77064

USA

Attention: David Dobsky

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.



Amy Pura E.I.T.

Issued by: Amy Pura E.I.T.

PRODUCTS

CLASS 2258 82 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations - Certified to US Standards

CLASS 2258 02 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations

CLASS 2258 84 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity - - For Hazardous Locations - Certified to US Standards

CLASS 2258 04 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity - For Hazardous Locations

2258 02 – PROCESS CONTROL EQUIPMENT- For Hazardous Locations

2258 82 – PROCESS CONTROL EQUIPMENT- For Hazardous Locations – Certified to US Standards

Class I, Groups B, C and D; Class I, Division 2, Groups A, B, C & D; Class II, Groups E, F & G; T4 or T4A

Vibration Transmitter, Model ST5484E, Rated supply 12-30Vdc; Output 4-20mA; CSA Enclosure Type 4X; Maximum Ambient Temperature 100°C.

METRIX DOC NO: 1185339
REV: A



Certificate: 1270898

Master Contract: 168872

Project: 2272515

Date Issued: 2010/02/18

2258 04– PROCESS CONTROL EQUIPMENT- Intrinsically Safe, Entity - For Hazardous Locations

2258 84– PROCESS CONTROL EQUIPMENT- Intrinsically Safe, Entity - For Hazardous Locations –
Certified to US Standards

Class I, Groups A, B, C and D

Vibration Transmitter, Model ST5484E; CSA Enclosure Type 4X; Maximum Ambient Temperature 100°C; Temperature Code T4; Intrinsically Safe with the following Entity Parameters when connected as per drawing number 9426. $V_{max} = 30V$; $I_{max} = 100 \text{ mA}$; $C_i = 29 \text{ nF}$; $L_i = 0\mu H$.

APPLICABLE REQUIREMENTS

CSA Standard C22.2 No. 0-M1991 - General Requirements - Canadian Electrical Code Part II

CSA Standard C22.2 No. 25-1966 - Enclosures For Use in Class II, Groups E, F and G Hazardous Locations

CSA Standard C22.2 No. 30-1986 - Explosion-Proof Enclosures for Use in Class I, Hazardous Locations

CSA Standard C22.2 No. 142-1987 - Process Control Equipment

CSA Standard C22.2 No. 157-M1992 - Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations

CSA Standard C22.2 No. 213- 1987 - Non-Incendive Electrical Equipment for use in Class I, Division 2 Hazardous Locations

UL Std. No. 913 - Sixth Edition - Intrinsically Safe Apparatus and Associated Apparatus for use in Class I, II, III, Division 1, Hazardous (Classified) Locations.

UL Std. No. 1203 Third Edition - Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations.

UL Std. No. 1604 Third Edition - Electrical Equipment for Use in Class I and II, Division 2, and Class III Hazardous (Classified) Locations.

MARKINGS

All units shall have the following markings along with the additional markings as noted for a given approval rating:

- (1) Submitter's name, trademark, or the CSA file number (adjacent to the CSA Mark).
- (2) Catalogue / Model designation.

METRIX DOC NO: 1185339 REV: A



Certificate: 1270898

Master Contract: 168872

Project: 2272515

Date Issued: 2010/02/18

- (3) Complete electrical rating (amps, hertz, and volts).
- (4) Date code / Serial number traceable to month and year of manufacture.
- (5) Special purpose enclosure designation, "Type"
- (6) Temperature Code Rating
- (7) Maximum Ambient Temperature
- (8) The CSA Mark

For Intrinsically Safe units:

- (1) Exia; Intrinsically Safe for Class I, Groups. A, B, C, D when installed as per drawing 9426

For E.P. rated units:

- (1) Certified Explosion proof, Class I, Group B, C, D; Class II, Group E, F, G.
- (2) **“SEAL NOT REQUIRED”**.

For Div. 2 rated units:

- (1) Class I, Div. 2, Groups A,B,C and D.

Refer to Illustration 1 for more details.

Refer to Figure 6 for installation drawing.

Note: The c and us or NRTL/c indicators may appear adjacent to the CSA Mark.

METRIX DOC NO: 1185339 REV: A

Certificate of Compliance

Certificate: 1270898 (LR 49334)

Master Contract: 168872

Project: 1476140 (Edition 4)

Date Issued: September 15, 2003

Issued to: **Metrix Instrument Co.**
1711 Townhurst Dr.
Houston, TX 77043
USA

The products listed below are eligible to bear the CSA Mark shown with adjacent indicator 'NRTL/C' or 'CSA/C/US'.



OR



Issued by:


Marty Klaassen P. Eng.
Product Certification Engineer

Authorized by:


Patricia Pasemko
Operations Manager

CLASS

2258 02 – PROCESS CONTROL EQUIPMENT- For Hazardous Locations

2258 82 – PROCESS CONTROL EQUIPMENT- For Hazardous Locations – Certified to US Standards

PRODUCTS

Class I, Groups B, C and D; Class I, Division 2, Groups A, B, C & D; Class II, Groups E, F & G; T4 or T4A

Vibration Transmitter, Model ST5484E, Rated supply 12-30Vdc; Output 4-20mA; CSA Enclosure Type 4X; Maximum Ambient Temperature 100°C.

CLASS

2258 04– PROCESS CONTROL EQUIPMENT- Intrinsically Safe, Entity - For Hazardous Locations

2258 84– PROCESS CONTROL EQUIPMENT- Intrinsically Safe, Entity - For Hazardous Locations – Certified to US Standards

PRODUCTS

Class I, Groups A, B, C and D

Vibration Transmitter, Model ST5484E; CSA Enclosure Type 4X; Maximum Ambient Temperature 100°C; Temperature Code T4; Intrinsically Safe with the following Entity Parameters when connected as per drawing number 9426. Vmax = 30V; Imax = 100 mA; Ci = 29 nF; Li = 0uH.

METRIX DOC NO: 1185339
REV: A

Certificate: 1270898

Project: 1476140

Master Contract: 168872

Date: September 15, 2003

APPLICABLE REQUIREMENTS

- CSA Standard C22.2 No. 0-M1991 - General Requirements - Canadian Electrical Code Part II
- No. 25 -1966 - Enclosures For Use in Class II, Groups E, F and G Hazardous Locations
- No. 30 -1986 - Explosion-Proof Enclosures for Use in Class I, Hazardous Locations
- No. 142- 1987 - Process Control Equipment
- No. 157-M1992 - Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations
- No. 213- 1987 - Non-Incendive Electrical Equipment for use in Class I, Division 2 Hazardous Locations
- UL Std. No. 913 - Sixth Edition - Intrinsically Safe Apparatus and Associated Apparatus for use in Class I, II, III, Division 1, Hazardous (Classified) Locations.
- 1203 Third Edition - Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations.
- 1604 Third Edition - Electrical Equipment for Use in Class I and II, Division 2, and Class III Hazardous (Classified) Locations



Supplement to Certificate of Compliance

Certificate: 1270898 (LR 49334)

Master Contract: 168872

*The products listed, including the latest revision described below,
are eligible to be marked in accordance with the referenced Certificate.*

Product Certification History

Project	Date	Description
1270898	February 27, 2002	Original Certification of Transmitter Model: ST5484E.
1314586	May 6, 2002	Update to 1270898 to cover Class I, Division 2, Groups A, B, C and D.
1413262	April 4, 2002	Update to 1270898 to cover I.S. requirements based on LCIE project 1270897
1476140	September 15, 2003	Update to 1270898 to include revised construction.

METRIX DOC NO: 1185339
REV: A