

CERTIFICATE OF CONFORMITY



1. **HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS**
2. **Certificate No:** FM20US0142X
3. **Equipment:** Model MTL831C Series Analog Transmitters
(Type Reference and Name)
4. **Name of Listing Company:** Relcom Incorporated
5. **Address of Listing Company:** 2221 Yew Street,
Forest Grove, OR 97116
USA
6. The examination and test results are recorded in confidential report number:

PR457637 dated 12th January 2021
7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:

FM Class 3600:2018, FM Class 3610:2018, FM Class 3810:2018,
ANSI/UL 60079-0:2019, ANSI/UL 60079-11:2014, ANSI/UL 61010-1:2016
8. If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.
9. This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the product as examined, tested and Approved.
10. **Equipment Ratings:**

Intrinsically Safe for use in Class I, Division 1, Groups A, B, C and D; Temperature Class T4 Tamb -40°C to +70°C when installed in accordance with control drawing 503-215 Hazardous (Classied) Locations;

Intrinsically Safe for use in Class 1, Zone 0, AEx ia IIC; Temperature Class T4; Equipment Protection level Ga; Tamb -40°C to +70°C when installed in accordance with control drawing 503-215; Explosive

Certificate issued by:



J.E. Marquedant
VP, Manager - Electrical Systems

12 July 2021

Date

To verify the availability of the Approved product, please refer to www.approvalguide.com

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

FM Approvals LLC. 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA
T: +1 (1) 781 762 4300 F: +1 (1) 781 762 9375 E-mail: information@fmapprovals.com www.fmapprovals.com

SCHEDULE



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Atmospheres.

11. The marking of the equipment shall include:

IS CL I DIV 1, GP A, B, C, D; T4

CL I, Zone 0, AEx ia IIC T4 Ga

-40°C ≤ Tamb ≤ +70°C

Install Per Control Drawing 503-215

12. **Description of Equipment:**

General - The Model MTL831C Series Analog Transmitters convert temperature measurements to an electrical signal or accept mV input signals for delivery to the control room. Each transmitter contains up to 16 sensor inputs.

Mechanical - The Model MTL831C Series Transmitter's enclosure is constructed polymeric materials. Each transmitter is a rectangular block approximately 188mm (7.4") in length by 74mm (2.9") in which by 48mm (1.9") in depth. The top side has rows of terminal on each side for accepting power and up to 16 analog inputs. The Model MTL831C Transmitter contains fixed recessed screw clamp type terminals and the Model MTL831C-PS Transmitter contains pluggable recessed screw clamp type terminals.

Ratings - For type of protection intrinsic safety, connections can only made by connecting certified associated apparatus having entity parameters. The output of the associated apparatus shall not exceed the Entity parameters for the Model MTL831C Series Transmitter as shown below.

Intrinsic Safety Energy Limitation Parameters:
Ui = 24V, li = 250mA, Pi = 1.2W, Ci = 0, Li = 0.

Nominal Operation: 10-24VDC, 25-35mA.

The Model MTL831C Series Transmitters are rated for an ambient temperature range of -40°C to +70°C.

MTL831Ca Analog Transmitter.

a = Terminals: Blank or -PS.

Entity Parameters:

Ui = 24V, li = 250mA, Pi = 1.2W, Ci = 0, Li = 0.

Sensor Terminals (Connection to Intrinsically Safe Equipment):

Group IIC; Uo = 5.88V, Io = 48.1mA, Po = 71mW, Co = 9.4µF, Lo = 7.68mH.

Group IIB; Uo = 5.88V, Io = 48.1mA, Po = 71mW, Co = 487µF, Lo = 30.73mH.

Group IIA; Uo = 5.88V, Io = 48.1mA, Po = 71mW, Co = 487µF, Lo = 61.47mH.

Sensor Terminals (Connection of Simple Apparatus):

Group IIC; Uo = 5.88V, Io = 48.1mA, Po = 71mW, Co = 30µF, Lo = 15.36mH.

Group IIB; Uo = 5.88V, Io = 48.1mA, Po = 71mW, Co = 987µF, Lo = 61.47mH.

Group IIA; Uo = 5.88V, Io = 48.1mA, Po = 71mW, Co = 987µF, Lo = 122.8mH.

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13. Specific Conditions of Use:

1. The surface of the equipment may cause risk of electrostatic discharge. Avoid installation that could cause electrostatic build-up, and only clean with a damp cloth.

14. Test and Assessment Procedure and Conditions:

This Certificate has been issued in accordance with FM Approvals US Certification Requirements.

15. Schedule Drawings

A copy of the technical documentation has been kept by FM Approvals.

16. Certificate History

Details of the supplements to this certificate are described below:

Date	Description
12 th January 2021	Original Issue.
12 th July 2021	<u>Supplement 1:</u> Report Reference: – RR228941 dated 12 th July 2021 Description of the Change: Updated Lo values in entity parameters.

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