



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 FMG 20.0038X	Page 1 of 4	<u>Certificate history:</u>
Status:	Current	Issue No: 2	Issue 1 (2021-07-12)
Date of Issue:	2023-02-23		Issue 0(2021-01-12)
Applicant:	Relcom Inc 2221 Yew Street Forest Grove, OR 97116 United States of America		
Equipment:	Model MTL831C Series Analog Transmitter		
Optional accessory:			
Type of Protection:	Intrinsic Safety 'ia'		
Marking:	Ex ia IIO T4 Ga -40'0 ≤ Ta ≤ +70'C		

Approved for issue on behalf of the IECEx
Certification Body:

J. E. Marquedant

Position:

VP, Manager - Electrical Systems

Signature:
(for printed version)

Date:
(for printed version)

23 February 2023

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:

FM Approvals LLC
1151 Boston-Providence Turnpike
Norwood, MA 02062
United States of America





IECEX Certificate of Conformity

Certificate No.: **IECEX FMG 20.0038X**

Page 2 of 4

Date of issue: 2023-02-23

Issue No: 2

Manufacturer: **Relcom Inc**
2221 Yew Street
Forest Grove, Oregon, USA 97116
United States of America

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

[IEC 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

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:

[US/FMG/ExTR20.0028/00](#)

[US/FMG/ExTR20.0028/01](#)

[US/FMG/ExTR20.0028/02](#)

Quality Assessment Report:

[FR/LCI/QAR06.0002/14](#)



IECEX Certificate of Conformity

Certificate No.: **IECEX FMG 20.0038X**

Page 3 of 4

Date of issue: 2023-02-23

Issue No: 2

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

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:
 $U_i = 24V$, $I_i = 250mA$, $P_i = 1.2W$, $C_i = 0$, $L_i = 0$.

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

The Model MTL831C Series Transmitters are rated for an ambient temperature range of $-40^{\circ}C$ to $+70^{\circ}C$.

MTL831Ca Analog Transmitter.

a= Terminals: Blank or -PS.

Energy Limitation Parameters:

$U_i = 24V$, $I_i = 250mA$, $P_i = 1.2W$, $C_i = 0$, $L_i = 0$.

Sensor Terminals (Connection to Intrinsically Safe Equipment):

Group IIC; $U_o = 5.88V$, $I_o = 48.1mA$, $P_o = 71mW$, $C_o = 9.4\mu F$, $L_o = 7.68mH$.

Group IIB; $U_o = 5.88V$, $I_o = 48.1mA$, $P_o = 71mW$, $C_o = 487\mu F$, $L_o = 30.73mH$.

Group IIA; $U_o = 5.88V$, $I_o = 48.1mA$, $P_o = 71mW$, $C_o = 487\mu F$, $L_o = 61.47mH$.

Sensor Terminals (Connection of Simple Apparatus):

Group IIC; $U_o = 5.88V$, $I_o = 48.1mA$, $P_o = 71mW$, $C_o = 30\mu F$, $L_o = 15.36mH$.

Group IIB; $U_o = 5.88V$, $I_o = 48.1mA$, $P_o = 71mW$, $C_o = 987\mu F$, $L_o = 61.47mH$.

Group IIA; $U_o = 5.88V$, $I_o = 48.1mA$, $P_o = 71mW$, $C_o = 987\mu F$, $L_o = 122.8mH$.

SPECIFIC CONDITIONS OF USE: YES as shown below:

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.



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Certificate No.: **IECEX FMG 20.0038X**

Page 4 of 4

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Section 17 was added to Drawing 503-214 Revision E.0 to include modifications for EMI Improvement.

The modifications include the removal of a transistor, component designation Q4 and the addition of Capacitor C46 (2.2 μ F, 10%).