EU TYPE-EXAMINATION CERTIFICATE

1. **EU type-examination Certificate (Module B)**

2. **Equipment or Protective System intended for use in potentially explosive atmospheres (Directive 2014/34/EU)**

3. **EU type examination certificate Nr** **ITS18ATEX23750X R.1**

4. **Product:** Analog Transmitter: MTL831C, MTL831C-P[S,C]

5. **Manufacturer:** Relcom, Inc. **Applicant:** Relcom, Inc.

6. **Address:** 2221 Yew Street, Forest Grove, OR 97116; USA **Address:** 2221 Yew Street, Forest Grove, OR 97116; USA

7. This product and any acceptable variation thereto are specified in the schedule to this certificate and therein referred to.

8. INTERTEK ITALIA S.p.A., Notified Body n° 2575 in accordance with article 17 of the Directive 2014/34/EU of the European Parliament and Council of the 26 February 2014, certifies that the equipment or protective system has been found to comply with the essential Health and Safety Requirements relating to the design and construction of equipment and protective system intended for use in potentially explosive atmosphere, given in Annex II of the Directive.

   The examination and tests results are recorded in confidential technical evaluation Intertek Report Nr. 103242181CRT-003 dated 13 December 2018, 103862058CRT-003 dated 17 May 2019 and 104305863CRT-003 dated 10 June 2020.

9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN IEC 60079-0:2018 and EN 60079-11:2012 except in respect of those requirements referred to at item 16 of the Schedule.

10. If the sign X is placed after the certificate number, it indicates that the product is subject to Special Conditions for Safe Use specified in the schedule to this certificate.

11. This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12. The marking of the product shall include the following:

    II 1 G Ex ia IIC T4 Ga

    Tamb: -40°C to +70°C

Certificate issue date

15 June 2020

Fabrizio Massei
Certification Officer
Intertek Italia S.p.A. (NB 2575)

PDR N° 277B

Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC

Signatory of EA, IAF and ILAC Mutual Recognition Agreements

SCHEDULE

EU TYPE EXAMINATION CERTIFICATE NUMBER: ITS18ATEX23750X R.1

13. DESCRIPTION OF THE EQUIPMENT OR PROTECTIVE SYSTEM

The Analog Transmitter (MTL831C) is part of a multi-component system that aggregates temperature or mV measurements from field sensors and provides them to the control system (DCS, PLC, etc.). The system consists of the MTL831C, which can connect to 16 sensors, and a Receiver (MTL838C) that makes the data from the sensors available via Modbus/RS485. Up to 2 Analog Transmitters can be connected on the bus to a single Receiver – providing a total of up to 32 sensors per system. An IS isolator (e.g. MTL5053) is used when the MTL831C is installed in a hazardous location (Zone 0, 1, or 2). Sensors connected to the MTL831C may be in Zone 0, 1 or 2.

Power for the MTL831C is provided by the IS isolator. The IS isolator is connected to the MTL831C with twisted shielded pair cable. The cable wires are terminated at the dual input screw-retained pluggable Data Highway port. The dual connector allows connection of an optional second MTL831C. Wires from external sensors are connected to the MTL831C via fixed screw terminals (4 per sensor input, 16 inputs per MTL831C). A green LED indicates minimal voltage is present for the MTL831C. A red LED indicates detection of a fault condition. The unit is housed in a custom polycarbonate case that includes a DIN rail mounting mechanism. Both sides of the PCB are conformally coated except for areas along both sides of the PCB where connectors are mounted. An area on the top of the PCB is spot encapsulated.

The standard product (MTL831C) has fixed screw terminals for the 16 sensor input channels. Part number MTL831C-PS has pluggable screw terminals for the 16 sensor input channels. Part number MTL831C-PC has pluggable cage clamp terminals for the 16 sensor input channels.

Ui = 24V, Ii = 250mA, Pi = 1.2W, Ci = 0, Li = 0
Uo = 5.88V, Io = 48.1mA, Po = 71mW

	Simple Apparatus		Other	
Gas Group	Co (uF)	Lo (mH)	Co (uF)	Lo (mH)
IIA	987	369	487	184
IIB	987	189	487	94
IIC	30	49	9.4	24

CE Marking shall be accompanied by the identification number of the Notified Body responsible for surveillance of production.

14. DRAWINGS AND DOCUMENTS

TITLE	DOCUMENT Nr	LEVEL	DATE
MTL831C Analog Transmitter Ex Certification Package	503-214	C.0	01 APR 2020
MTL831C Analog Transmitter Ex Safety Instructions	503-215	C.0	16 APR 2020

Copies of the above listed documents are kept at Intertek Italia S.p.A. archive.

SCHEDULE

EU TYPE EXAMINATION CERTIFICATE NUMBER: ITS18ATEX23750X R.1

15. **SPECIAL CONDITIONS FOR SAFE USE**

The equipment is housed within a plastic enclosure. Suitable precautions must be made to avoid rubbing or cleaning with solvents.

16. **ESSENTIAL HEALTH AND SAFETY REQUIREMENTS**

The relevant essential Health and Safety Requirements have been identified and assessed in Intertek Report Nr. 103242181CRT-003 dated 13 December 2018, 103862058CRT-003 dated 17 May 2019 and 104305863CRT-003 dated 10 June 2020..

17. **ROUTINE (FACTORY) TESTS**

Each transformer must be tested for adequate insulation as described below:

- Apply a 600Vrms from the transformer primary to the transformer secondary for 1 second.
- Confirm no more than 5mA (I_{rms}) of current flows while the voltage is applied.

18. **DETAIL OF CERTIFICATE CHANGES**

R.1 (15 June 2020):
Added pluggable models MTL831C-P[S,C]
Updated marking label
Changed PCB design and Schematics by moving, replacing and changing certain components.
Update to standard EN IEC 60079-0:2018
Updated schedule drawings and documents to reflect the above mentioned changes.