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 21.0003X**	Page 1 of 3	Certificate history:
Status:	**Current**	Issue No: 0	
Date of Issue:	2021-02-25		
Applicant:	**Clark-Reliance Corporation** 16633 Foltz Pkwy Strongsville, OH 44149-5513 **United States of America**		
Equipment:	**JMT MAGNETOSTRICTIVE TRANSMITTER**		
Optional accessory:			
Type of Protection:	**Ex db ia**		
Marking:	Ex db ia IIB T4 Gb IECEx ETL 21.0003X		

Approved for issue on behalf of the IECEx Certification Body: **Todd L. Relyea**

Position: **Certification Officer**

Signature: (for printed version)

Date:

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

IECEx Certificate of Conformity

Certificate No.: **IECEx ETL 21.0003X** Page 2 of 3

Date of issue: 2021-02-25 Issue No: 0

Manufacturer: **Clark-Reliance Corporation**
16633 Foltz Pkwy
Strongsville, OH 44149-5513
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 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
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/ETL/ExTR19.0035/00 US/ETL/ExTR21.0003/00

Quality Assessment Report:

GB/ITS/QAR11.0005/07

IECEx Certificate of Conformity

Certificate No.: **IECEx ETL 21.0003X** Page 3 of 3

Date of issue: 2021-02-25 Issue No: 0

EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

JMT MAGNETOSTRICTIVE TRANSMITTER

SPECIFIC CONDITIONS OF USE: YES as shown below:
1. IP66: ALL COVERS FULLY CLOSED.

2. IP20: WHEN THE WINDOW COVER IS OPEN EXPOSING ELECTRONICS TO ATMOSPHERE.

USER SHOULD TAKE PRECAUTIONS TO AVOID INGRESS THAT MIGHT DAMAGE PROTECTIONS WHEN COVER IS REMOVED.

3. VOLTAGE NEEDS TO BE SUPPLIED THROUGH APPROVED HART® COMPATIBLE ISOLATOR BARRIER.

4. TAKE PRECAUTION TO AVOID POSSIBLE IGNITION HAZARDS BY IMPACT OR FRICTION.

Annex:

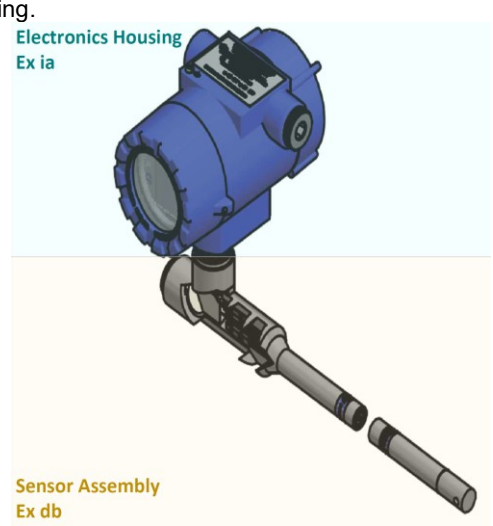
SFT-IECEx-OP-19f - Annex for IECEx Certificate of Conformity - Final Clean (2).pdf

Annex to IECEx Certificate of Conformity

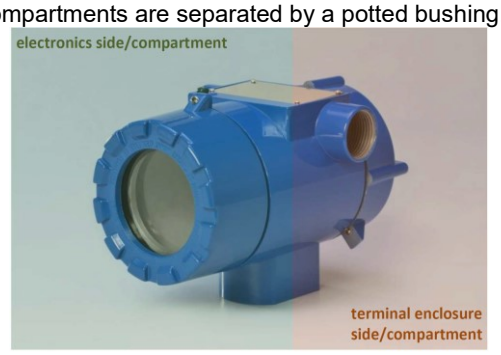
Certificate No:	IECEx ETL 21.0003X	Issue No. 0
Annex No. 1		

General product information:
The product is a 4-20 mA, loop-powered HART® compatible level transmitter intended to be used in conjunction with a magnetic liquid level gage. It provides an analog output of level and the HART® digital protocol. Outputs can be monitored using 4-20 mA signal output, a HART® device (hand-held or PC-compatible software), the integral display, or all of the above.

The product/assembly has two (2) main sub-assemblies: the Electronics Housing and the Sensor Assembly. The Sensor Assembly includes a potted bushing in the threaded fitting providing Ex db separation between the Sensor Assembly and the Electronics Housing.



The Electronics Housing has two sides (compartments): terminal enclosure side/compartment and the electronics side/compartment. The two sides/compartments are separated by a potted bushing.



The electronics side/compartment uses Type of Protection Ex ia even though the Electronics Housing is an Ex db enclosure. The other side, terminal enclosure side/compartment, also uses Type of Protection Ex ia even though the Terminal Housing is an Ex db enclosure. This use of Ex ia is to permit removal of the covers from the electronics side/compartment and/or the terminal enclosure side/compartment while circuits are energized.

The complete product assembly (Electronics Housing and the Sensor Assembly) is to be installed using a field selected Certified Isolating Barrier providing two-wire Ex ia supply/signal as well as the necessary external conduit seals and or cable glands. There are included blocking/limiting circuitry inside the Ex db portion such that the energy available to the Ex ia portion is adequately limited and or suppressed.

In summary, there is one (1) separate Ex db enclosure: Sensor Assembly and two Ex ia enclosure sides/compartments (using Ex db covered sides/compartments) which are separated by potted bushings between each side/compartment.

The Ex db portions of the product are covered under certification IECEx ETL 19.0030X.

“Specific Conditions of Use” / “Schedule of Limitations”:

1. IP66: ALL COVERS FULLY CLOSED.
2. IP20: WHEN THE WINDOW COVER IS OPEN EXPOSING ELECTRONICS TO ATMOSPHERE.

   USER SHOULD TAKE PRECAUTIONS TO AVOID INGRESS THAT MIGHT DAMAGE PROTECTIONS WHEN COVER IS REMOVED.
3. VOLTAGE NEEDS TO BE SUPPLIED THROUGH APPROVED HART® COMPATIBLE ISOLATOR BARRIER.
4. TAKE PRECAUTION TO AVOID POSSIBLE IGNITION HAZARDS BY IMPACT OR FRICTION.

Annex to IECEx Certificate of Conformity

Certificate No:	IECEx ETL 21.0003X	Issue No. 0
Annex No. 1		

Technical Documents			
Title:	Drawing No.:	Rev. Level:	Date:
*ASSEMBLY: GAGE-MOUNT: JMT: INTRINSICALLY SAFE	A-35152-IS	0	02/18/2021
*Module: PCB: JMT: Assembled: IS	S-25318-IS	1	02/03/2021
*Sensor: JMT: Assemblies: IS	S-25382-IS	1	1/14/2021
*Housing: JMT: Assembled: IS	S-25530-IS	1	1/14/2021
*PCB Fabrication & Assembly, JMT Base	PC-V22403	3	12/3/2020
*PCB Fabrication & Assembly, JMT Analog	PC-V22404	6	1/21/2021
*PCB Fabrication & Assembly, JMT CPU	PC-V22405	6	1/21/2021
*PCB Fabrication & Assembly, JMT Display	PC-V22406	3	12/3/2020
*PCB Fabrication & Assembly, JMT Sensor	PC-V22407	3	12/3/2020
*Schematic, JMT Base PCB	ES-V22403	2	6/18/2020
*Schematic, JMT Analog PCB	ES-V22404	4	6/17/2020
*Schematic, JMT CPU PCB	ES-V22405	4	6/16/2020
*Schematic, JMT Display PCB	ES-V22406	2	6/16/2020
*Schematic, JMT Sensor PCB	ES-V22407	2	2/27/2020
*Tubing: Shrink: Heat: High-Temp	E-HTHS-0375	1	1/6/2021
*WIRE: UL1330	E-W-1330	2	02/03/2021
*Tag: IS: ATEX/IECEx: JMT	V-22484	4	02/03/2021
*Tag: Model/Serial: JMT	V-22683	0	4/7/2020
*JMT IS, Control & Installation	CI-35152-IS	6	02/03/2021

*Note: An * is included before the title of documents that are new or revised.*

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** **ITS-I21ATEX28848X**

4. **Product:** JMT MAGNETOSTRICTIVE TRANSMITTER

5. **Manufacturer:** CLARK-RELIANCE CORPORATION **Applicant:** CLARK-RELIANCE CORPORATION

6. **Address:** 16633 Foltz Pkwy; Strongsville, OH 44149-5513; USA **Address:** 16633 Foltz Pkwy; Strongsville, OH 44149-5513; 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. 104028124CRT-007A dated 18 February 2021

9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN IEC 60079-0:2018 and EN 60079-1:2014 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 2 G Ex db ia IIB T4 Gb
    Tamb: -40°C to +60°C

Certificate issue date

22 March 2021

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: ITS-I21ATEX28848X

13. DESCRIPTION OF THE EQUIPMENT OR PROTECTIVE SYSTEM

The product is a 4-20 mA, loop-powered HART® compatible level transmitter intended to be used in conjunction with a magnetic liquid level gage. It provides an analog output of level and the HART® digital protocol. Outputs can be monitored using 4-20 mA signal output, a HART® device (hand-held or PC-compatible software), the integral display, or all of the above.

The product/assembly has two (2) main sub-assemblies: the Electronics Housing and the Sensor Assembly. The Sensor Assembly includes a potted bushing in the threaded fitting providing Ex db separation between the Sensor Assembly and the Electronics Housing.

The Electronics Housing has two sides (compartments): terminal enclosure side/compartment and the electronics side/compartment. The two sides/compartments are separated by a potted bushing.

The electronics side/compartment uses Type of Protection Ex ia even though the Electronics Housing is an Ex db enclosure. The other side, terminal enclosure side/compartment, also uses Type of Protection Ex ia even though the Terminal Housing is an Ex db enclosure. This use of Ex ia is to permit removal of the covers from the electronics side/compartment and/or the terminal enclosure side/compartment while circuits are energized.

The complete product assembly (Electronics Housing and the Sensor Assembly) is to be installed using a field selected Certified Isolating Barrier providing two-wire Ex ia supply/signal as well as the necessary external conduit seals and or cable glands. There are included blocking/limiting circuitry inside the Ex db portion such that the energy available to the Ex ia portion is adequately limited and or suppressed.

In summary, there is one (1) separate Ex db enclosure: Sensor Assembly and two Ex ia enclosure sides/compartments (using Ex db covered sides/compartments) which are separated by potted bushings between each side/compartment.

The Ex db portions of the product are covered under certification ITS19ATEX14921X Issue 01 (IECEx ETL 19.0030X).

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

SCHEDULE

EU TYPE EXAMINATION CERTIFICATE NUMBER: ITS-I21ATEX28848X

14. DRAWINGS AND DOCUMENTS

TITLE	DOCUMENT Nr	LEVEL	DATE
ASSEMBLY: GAGE-MOUNT: JMT: INTRINSICALLY SAFE	A-35152-IS	0	02/18/2021
Module: PCB: JMT: Assembled: IS	S-25318-IS	1	02/03/2021
Sensor: JMT: Assemblies: IS	S-25382-IS	1	1/14/2021
Housing: JMT: Assembled: IS	S-25530-IS	1	1/14/2021
PCB Fabrication & Assembly, JMT Base	PC-V22403	3	12/3/2020
PCB Fabrication & Assembly, JMT Analog	PC-V22404	6	1/21/2021
PCB Fabrication & Assembly, JMT CPU	PC-V22405	6	1/21/2021
PCB Fabrication & Assembly, JMT Display	PC-V22406	3	12/3/2020
PCB Fabrication & Assembly, JMT Sensor	PC-V22407	3	12/3/2020
Schematic, JMT Base PCB	ES-V22403	2	6/18/2020
Schematic, JMT Analog PCB	ES-V22404	4	6/17/2020
Schematic, JMT CPU PCB	ES-V22405	4	6/16/2020
Schematic, JMT Display PCB	ES-V22406	2	6/16/2020
Schematic, JMT Sensor PCB	ES-V22407	2	2/27/2020
Tubing: Shrink: Heat: High-Temp	E-HTHS-0375	1	1/6/2021
WIRE: UL1330	E-W-1330	2	02/03/2021
Tag: IS: ATEX/IECEx: JMT	V-22484	4	02/03/2021
Tag: Model/Serial: JMT	V-22683	0	4/7/2020
JMT IS, Control & Installation	CI-35152-IS	6	02/03/2021

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

15. SPECIAL CONDITIONS FOR SAFE USE

- 1. IP66: ALL COVERS FULLY CLOSED.
- 2. IP20: WHEN THE WINDOW COVER IS OPEN EXPOSING ELECTRONICS TO ATMOSPHERE.
  USER SHOULD TAKE PRECAUTIONS TO AVOID INGRESS THAT MIGHT DAMAGE PROTECTIONS WHEN COVER IS REMOVED.
- 3. VOLTAGE NEEDS TO BE SUPPLIED THROUGH APPROVED HART® COMPATIBLE ISOLATOR BARRIER.
- 4. TAKE PRECAUTION TO AVOID POSSIBLE IGNITION HAZARDS BY IMPACT OR FRICTION.

16. ESSENTIAL HEALTH AND SAFETY REQUIREMENTS

The relevant essential Health and Safety Requirements have been identified and assessed in Intertek 104028124CRT-007A dated 18.FEB.2021.

17. ROUTINE (FACTORY) TESTS

NA / Non

18. DETAIL OF CERTIFICATE CHANGES

NA / None

16633 Foltz Parkway • Strongsville, Ohio 44149, U.S.A. • Telephone (440) 572-1500 • Fax (440) 238-8828
www.clark-reliance.com

EU Declaration of Conformity

Manufacturer: The Clark-Reliance Corporation
16633 Foltz Parkway
Strongsville, OH 44149 USA

Model # JMT Magnetostrictive Level Transmitter

Rating: II 2 G
Ex db ia IIB T4 Gb
-40C≤Ta≤+60C

Declaration: The equipment listed is in conformity with the provisions of the ATEX directive 2014/34/EU.

Certificate: ITS-I21ATEX28848X
Intertek Italia S.p.A
Via Guido Miglioli 2/A
20063 Cerbusco sul Naviglio – Milano (MI)
County: Italy

Standards: 60079-0: 2018 60079-1:2014 60079-11:2012

QAN: QAN Certificate Number ITS09ATEXQ6353 issued by
Intertek Italia S.p.A
Via Guido Miglioli 2/A
20063 Cerbusco sul Naviglio – Milano (MI)
County: Italy

Authorized Signature(s): _____ 03 / 07 / 2023
Engineering Manager Date

OR

: _____ _____
MRfQ Date