

CERTIFICATE OF CONFORMITY



1. **HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS**

2. **Certificate No:** FM18US0022X
3. **Equipment:** LLT-1000
(Type Reference and Name) LIDAR Level Transmitter

4. **Name of Listing Company:** Jogler

5. **Address of Listing Company:** 6646 Complex Drive
Baton Rouge, LA 70809
USA

6. The examination and test results are recorded in confidential report number:

3062197 dated 13th December 2018

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 3611:2018, FM Class 3810:2018,
ANSI/ISA-12-12-01:2015 ANSI/ISA 60079-0:2013, ANSI/ISA 60079-15:2010, ANSI/ISA 61010-1:2012

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:**

Non-incendive for Class I, II, II Division 2, Groups A, B, C, D, E, F, and G, T4A hazardous (classified) locations; Non Arching and Non Sparking for Class I Zone 2, Group IIC T6 hazardous (classified) locations; indoors and outdoors (IP66) with an ambient temperature rating of -20°C to 60°C.

Certificate issued by:

J.E. Marquedant
VP, Manager, Electrical Systems

13 December 2018

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



US Certificate Of Conformity No: FM18US0022X

11. The marking of the equipment shall include:

Class I, II, III Division 2, Groups A, B, C, D, E, F, G; T4A

Class I, Zone 2, AEx nA nC IIC T4 Gc

Ta = -20°C to 60°C

IP66

12. **Description of Equipment:**

General - The Model LLT-1000 LIDAR Level Transmitter is a non-contact based instrument that measures the level in silos, tanks, hoppers, chutes and bunkers. The 4 to 20 mA and relay interfaces provide linear and switch point controls whilst the on-board USB interface provides access to comprehensive, user-friendly configuration settings. With an optional visible aiming laser, numerous mounting flange options and Aluminium or 316 Stainless Steel housing.

Construction - The Model LLT-1000 LIDAR Level Transmitter consists of a dual compartment enclosure with electronics residing in one compartment and field wiring in the second compartment with thread-on solid cover. The enclosure is provided with 1/2 inch NPT opening for electrical connections.

Ratings - The Model LLT-1000 Level Transmitter operate at 14-32 Vdc (24 Vdc nominal). The transmitters is rated for use in an ambient temperature range of -20°C to +60°C.

LLT-1000/a/b Laser Level Transmitter

a = S Standard instrument without visible aiming laser pointer or P Instrument with visible aiming laser pointer
b = A Aluminium housing or S 316 Stainless Steel housing

13. **Specific Conditions of Use:**

1. The equipment's lenses shall be protected from exposure to ultraviolet light.
2. Potential risk of electrostatic sparking. Clean only 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:

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@fmaprovals.com www.fmaprovals.com

SCHEDULE



US Certificate Of Conformity No: FM18US0022X

Date	Description
13 th December 2018	Original Issue.

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@fmaprovals.com www.fmaprovals.com