

CERTIFICATE OF CONFORMITY




1. **HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS**
2. **Certificate No:** FM17US0214
3. **Equipment:** RS85 Vibrating Liquid Level Switch
(Type Reference and Name)
4. **Name of Listing Company:** ABB, Inc. – BU Measurement Products
5. **Address of Listing Company:** 125 East County Line Road
Warminster, PA 18974
USA
6. The examination and test results are recorded in confidential report number:

3024587 dated 11th April 2006
7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:

FM Class 3600:2011, FM Class 3615:2006, FM Class 3810:2005, ANSI/NEMA 250:2003
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:**

Explosionproof for Class I, Division 1, Groups A, B, C and D; Dust Ignitionproof for Class II, Division 1, Groups E, F, and G; and Class III, Division 1 hazardous (classified) locations; with an indoor and outdoor environmental rating of Type 4X.
11. The marking of the equipment shall include:

Certificate issued by:



J.E. Marquedant
VP, Manager - Electrical Systems

24 October 2019

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
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SCHEDULE



US Certificate Of Conformity No: FM17US0214

Class I Division 1, Groups A, B, C, D; T6 Ta = -40°C to +70°C;

Class II, III, Division 1, Groups E, F and G; T6 Ta = -40°C to +70°C; Type 4X

12. Description of Equipment:

General - The RS85 Vibrating Liquid Level Switch is a microprocessor-based device that utilizes a piezoelectric tuning fork that exhibits a large change in resonant frequency when immersed in any liquid. The resonant frequency is continuously monitored for changes created by a wet or dry sensor and an output is provided via relay contacts. The RS85 Vibrating Liquid Level Switches operates on 24 VDC, 120VAC, and 240 VAC, and is rated for a Maximum Working Pressure of 2000 psi.

Construction – The instrument consists of a dual compartment enclosure and a sensor probe. The enclosure has a threaded screw cap cover and 2 threaded conduit openings. The sensor probe is welded to a ¾ NPT adapter for connection to the housing. The adapter is potted with Sauereisen No. 31 potting compound and comes in varying lengths from 3-3/8" to 120" dependent upon the model chosen. The probes are constructed of 316L SS, Hastelloy C-276, Hastelloy B, Monel, or Incoloy 600. The instrument mounts to the process line by either an NPT or an ANSI Flange configuration. The switches are for use in ambient temperatures ranging from -40°C to 70°C.

RS85.a.b.c.d.e.f.g.h.i.j.k.l.m.n. Vibrating Liquid Level Switch.

XP / I / 1 / ABCD / T6 Ta = -40°C to 70°C;

DIP / II,III / 1 / EFG / T6 Ta = -40°C to 70°C; Type 4X

a = Housing: A1, A1W, A2, A2W, S2 or S2W.

b = Process Connection: P7, P1, B7, B1, T, WP or FL.

c = Process Connection Material: S6, HC or MO.

d = Flange Connection Size/Rating Type: X, 10, 15, 20, 25, 30, 40, 60 or XXX.

e = Sensor Material: S6, HC or MO.

f = Probe Finish: X, 1F, 2F, EP, TN6, HL6 or TF6.

g = Power: 1, 2 or 3.

h = Approvals: N2.

i = Probe Length: 086, 111, 136 or EXT.

j = High Temperature Extension: X or HT6.

k = Electrical Connections: X, MM or MMS

l = Hermetic Seal: X or HS.

m = Remote Mounted Electronic: X, R10 or R20.

n = Packing Gland: X or blank.

13. Specific Conditions of Use:

None

14. Test and Assessment Procedure and Conditions:

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

15. Schedule Drawings

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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
11 th April 2006	Original Issue.
8 th August 2017	<u>Supplement 6:</u> Report Reference: – RR209734 dated 8 th August 2017. Description of the Change: Update to new certificate format and change design and production address. Certificate transferred from ABB Inc. Baton Rouge, LA. Correct ambient temperature range to add low ambient.
24 th October 2019	<u>Supplement 7:</u> Report Reference: – RR220799 dated 24 th October 2019. Description of the Change: Add XXX option digit d. (Flange Connection Size/Rating Type) to allow for custom process connection styles per flange selection guide not exceeding 2,000 psig.

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