



Member of the FM Global Group

FM Approvals
1151 Boston Providence Turnpike
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CERTIFICATE OF COMPLIANCE

HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT

This certificate is issued for the following equipment:

2240Sabcdefghij. Multi-Input Temperature Transmitter.

IS / I,II,III / 1 / ABCDEFG / T4 Ta = -50°C to 70°C; 9240040-910 Entity/FISCO; Type 4X/IP66/IP67
I / 0 / AEx ia IIC / T4 Ta = -50°C to 70°C; 9240040-910 Entity/FISCO; Type 4X/IP66/IP67
I / 1 / AEx ib [ia] IIC T4 Ta = -50°C to 70°C; 9240040-910 FISCO; Type 4X/IP66/IP67

Energy Limitation Parameters

FISCO Input Parameters: $U_i = 17.5$ V, $I_i = 380$ mA, $P_i = 5.32$ W, $C_i = 2.2$ nF, $L_i = 2$ μ H
Entity Input Parameters: $U_i = 30$ V, $I_i = 300$ mA, $P_i = 1.3$ W, $C_i = 2.2$ nF, $L_i = 2$ μ H where

- a = Performance Class: Any single character
- b = Number of Temperature Sensor Inputs: 16, 08, 04, 00, X
- c = Leads per Temperature Element: 4, 3, 0, X
- d = Auxiliary Inputs: A, 0, X
- e = Tank Bus: Power and Communication: F, X, U
- f = Hazardous Location Certification: I5, KA, KD, KE
- g = Custody Transfer Type Approval: Any single character
- h = Housing: A
- i = Cable/Conduit Connections: 1, 2, G, E, M
- j = Mechanical Installation: M, W, P, 0, X

Specific Conditions for use;

1. The enclosure contains aluminum and is considered to present a potential risk of ignition by impact or friction. Care must be taken during installation and use to prevent impact or friction.
2. Rating I / 1 / AEx ib [ia] IIC T4 Ta = -50°C to 70°C; 9240040-910 FISCO; Type 4X/IP66/IP67 is only applicable when supplied from an FM certified AEx [ib] FISCO Power Supply with triplicate output voltage limitation meeting the requirements for two faults ("ia" voltage limitation).
3. The Model 2240 Multi-Input Temperature Transmitter will not pass the 500Vrms dielectric strength test and this must be taken into account during installation.

Equipment Ratings:

Intrinsically safe for Class I,II,III, Division 1, Groups A, B, C, D, E, F, and G hazardous (classified) locations. Intrinsically safe for Class I, Zone 0, Group IIC hazardous (classified) locations. Intrinsically safe for Class I, Zone 1, Group IIC hazardous (classified) locations with intrinsically safe connections to Zone 0, Group IIC. Type 4X, IP66, IP67.



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FM Approved for:

Rosemount Tank Radar AB
SE-40251 GÖTEBORG Sweden

This certifies that the equipment described has been found to comply with the following Approval Standards and other documents:

Class 3600	2011
Class 3610	2010
Class 3810	2005
ANSI/IEC 60529	2004
ANSI/NEMA 250	2008
ANSI/ISA 60079-11	2013
ANSI/ISA 60079-0	2013
ANSI/ISA 60079-26	2011

Original Project ID: 3035518

Approval Granted: August 25, 2010

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
111020	February 20, 2012		
3049393	January 8, 2014		

FM Approvals LLC



 J.E. Marquedant
 Group Manager, Electrical

8 January 2014

 Date



FM APPROVED PRODUCT/SPECIFICATION-TESTED REVISION REQUEST FORM Manufacturer's Tracking Number:

SENDER: Forward one original copy with updated drawings or other appropriate changes to the attention of **FM Approvals**. Original forms will be returned showing course of action taken.

FORWARD TO:
FM Approvals
 1151 Boston-Providence Turnpike
 P.O. Box 9102 Norwood, MA 02062 USA
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 E-mail: approvals@fmglobal.com
 FM Approvals Representative: **Jay Pungitore**
 Received 3-18-2014

Please provide the following information below: Attention of, Company Name, Address, State & Zip Code.

Customer ID: 1000003453 **Company Website** www.rosemount-tankradar.com

Attn: Dajana Prastalo
Rosemount Tank Radar AB
Garnlestadsvägen 18B
Box 13045
SE-40251 GÖTEBORG
Sweden
Invoice to:
Box 823
SE-83326 STRÖMSUND, Sweden

DATE SUBMITTED (MM/DD/YY) 2014-03-17
SUBMITTED BY Dajana Prastalo
SUBMITTER EMAIL ADDRESS Dajana.prastalo@emerson.com
SUBMITTER PHONE +46 31 330177
SUBMITTER TITLE Manager Product Approvals

TYPE OF CHANGE (CHECK ALL THAT APPLY):	FORMER NAME/ADDRESS/CONTACT
<input type="checkbox"/> COMPANY NAME CHANGE (New name above)	
ADDRESS CHANGE	
<input type="checkbox"/> BILLING (New address above)	
<input type="checkbox"/> PRODUCT LISTING (New address above)	
<input type="checkbox"/> MANUFACTURING (New address above)	
IF MANUFACTURING LOCATION CHANGE, WHICH FM APPROVED PRODUCTS ARE MANUFACTURED AT THE NEW FACILITY?	
<input type="checkbox"/> CONTACT CHANGE (New contact above)	
<input type="checkbox"/> PRODUCT/MODEL/TYPE CHANGE	PRODUCT DESCRIPTION/MODEL NO:
TYPES OF APPROVAL/CERTIFICATION AFFECTED BY THIS PRODUCT CHANGE (CHECK ALL THAT APPLY):	US <input checked="" type="checkbox"/> CA <input checked="" type="checkbox"/> ATEX <input checked="" type="checkbox"/> CPD <input type="checkbox"/>
INDICATE FM APPROVALS ORIGINAL PROJECT ID:	3035492, 3035466, 3035518, 3037177, 3035522 (IEC), 3035491 (IEC), 3035462 (IEC)
<input type="checkbox"/> OTHER CHANGE (Describe)	
REASON FOR CHANGE(S)/COMMENTS: Adding an optional conformal coating , e.g. HumiSeal 1B73 and 1B31.	

<u>REVISION DETAILS</u>	<u>AFFECTED DRAWING NUMBER</u>	<u>REVISION</u>	<u>NEW DRAWING NUMBER</u>	<u>REVISION</u>	<u>US/CA/ATEX/CPD</u>
9240040-946		02	9240040-946	03	(INDICATE ALL THAT APPLY)

TAB TO CONTINUE TABLE

FOR FM APPROVALS USE ONLY

ENGINEERING COMMENTS: Addition of PCB coating materials does not affect approvals. HumiSeal 1B73 and 1B31 coatings are similar in properties. 3 Supplement Reports Issued for IECEx. Controlled Document List was updated.	Master Agreement Implementation Date: 4-21-2003		
	Attachments: <input type="checkbox"/> YES <input type="checkbox"/> NO		
	REVISION REPORT J. I.	ACCESS IDENTIFICATION	CLASS NUMBER
		797-35490-283	
	REVISION ACCEPTED	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Third Signature Required	
	EXAMINED BY (PRINT AND SIGN NAME) Jay Pungitore/ <i>Jay Pungitore</i>	DATE 20-March-2014	
	REVIEWED BY (PRINT AND SIGN NAME) <i>J. Adam</i>	DATE 3/24/14	
APPROVED BY (PRINT AND SIGN NAME) <i>J. Adam</i>	DATE 3/25/14		