



Member of the FM Global Group

FM Approvals
1151 Boston Providence Turnpike
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CERTIFICATE OF COMPLIANCE

HAZARDOUS LOCATION ELECTRICAL EQUIPMENT PER CANADIAN REQUIREMENTS

This certificate is issued for the following equipment:

2230aFbcdAef Graphical Field Display

IS/I,II,III/1/ABCDEFGH/T4 Ta = -50°C to +70°C – 9240040-949; Entity; FISCO.

I/O/Ex ia IIC T4 Ta = -50°C to +70°C – 9240040-949; Entity; FISCO.

Type 4X; IP66, IP67

Entity Parameters:

Ui = 30V, li = 300mA, Pi = 1.3W, Ci = 2.1nF, Li = 1.1uH.

FISCO Parameters:

Ui = 17.5V, li = 380mA, Pi = 5.32W.

a = Default Language: Any single character

b = Firmware: Any single character.

c = Hazardous Location Certification: I6, KB, KD or KF.

d = Custody Transfer Type Approval: Any single character.

e = Cable/conduit Connections: 1, 2, G, E or M.

f = Mechanical Installation: W, D, X or P.

Special Conditions of Use:

1. *The non-metallic parts incorporated in the enclosure of this equipment may generate an ignition-capable level of electrostatic charge. Therefore particularly when it is used for applications that specifically require Division 1 and Group II, Zone 0 located equipment, the equipment shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. Additionally, the equipment shall only be cleaned with a damp cloth.*

2. *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.*

3. *The associated apparatus through which the equipment is supplied shall provide galvanic isolation between the input and output of the associated apparatus.*

To verify the availability of the Approved product, please refer to www.approvalguide.com



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Equipment Ratings:

Intrinsically Safe (Entity) for use in Class I, II, III, Division 1, Groups A, B, C, D, E, F and G; Temperature Class T4 Ta = -50°C to +70°C in accordance with Control Drawing No 9240040-949.

Fieldbus Intrinsically Safe concept (FISCO) for use in Class I, II, III, Division 1, Groups A, B, C, D, E, F and G; Temperature Class T4 Ta = -50°C to +70°C in accordance with Control Drawing No 9240040-949.

Intrinsically Safe for use in Class I, Zone 0, Ex ia IIC T4 Ta = -50°C to +70°C in accordance with Control Drawing No 9240040-949.

Fieldbus Intrinsically Safe concept (FISCO) for use in Class I, Zone 0, Ex ia IIC T4 Ta = -50°C to +70°C in accordance with Control Drawing No 9240040-949.

Indoor and Outdoor, Type 4X; IP66, IP67 Hazardous Locations.

FM Approved for:

Rosemount Tank Radar AB
GÖTEBORG SE-40251 Sweden



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

CAN CSA-C22.2 No. 157-92	1992 (2012)
CAN CSA-C22.2 No. 1010-1	2004 (2009)
CAN CSA-C22.2 No. 25-1966	1992 (2009)
CAN CSA-C22.2 No. 60529-05	2005 (2010)
CAN CSA-C22.2 No. E60079-0	2011
CAN CSA-C22.2 No. E60079-11	2011
CAN CSA-C22.2 No 94-M91	1991 (2011)

Original Project ID: 3037177C

Approval Granted: December 23, 2010

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
3049392	January 20, 2014		

FM Approvals LLC

J.E. Marquedant
Group Manager, Electrical

20 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
 T: +1 (1)781 762 4300 F: +1 (1)781 762 9375
 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
Gamlestadsvägen 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		