



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx FMG 10.0021X

Issue No: 4

Certificate history:

Status: **Current**

[Issue No. 4 \(2017-05-05\)](#)

[Issue No. 3 \(2014-03-25\)](#)

Date of Issue: **2017-05-05**

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[Issue No. 2 \(2014-01-20\)](#)

[Issue No. 1 \(2011-05-11\)](#)

[Issue No. 0 \(2010-12-22\)](#)

Applicant: **Rosemount Tank Radar AB**
Rosemount Tank Radar AB
Layoutvägen 1
Mölnlycke, 43533
Sweden

Equipment: **Model 2230 Graphical Field Display**

Optional accessory:

Type of Protection: **Intrinsic Safety 'ia'**

Marking:

Ex ia IIC Ga T4 (-50°C ≤ Ta ≤ +70°C); Entity/FISCO; IP66/IP67

*Approved for issue on behalf of the IECEx
Certification Body:*

James E. Marquedant

Position:

VP, Manager - Electrical Systems

*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 the [Official IECEx Website](#).

Certificate issued by:

FM Approvals LLC
1151 Boston-Providence Turnpike
Norwood, MA 02062
United States of America



Member of the FM Global Group



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Manufacturer: **Rosemount Tank Radar AB**
Rosemount Tank Radar AB
Layoutvägen 1
Mölnlycke, 43533
Sweden

Additional Manufacturing location(s):

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 electrical apparatus 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 : 2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0

IEC 60079-11 : 2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

*This Certificate **does not** indicate compliance with electrical 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 Report:

[US/FMG/ExTR10.0025/00](#)

[US/FMG/ExTR10.0025/01](#)

[US/FMG/ExTR10.0025/02](#)

[US/FMG/ExTR10.0025/03](#)

[US/FMG/ExTR10.0025/04](#)

Quality Assessment Report:

[NO/PRE/QAR15.0014/01](#)

[NO/DNV/QAR07.0007/00](#)

[NO/DNV/QAR07.0007/01](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Model 2230aFbcdAef Graphical Field Display.

Energy Limitation Parameters:

$U_i = 30V$, $I_i = 300mA$, $P_i = 1.3W$, $C_i = 2.1nF$, $L_i = 1.1\mu H$.

FISCO Parameters:

$U_i = 17.5V$, $I_i = 380mA$, $P_i = 5.32W$

a = Default Language: Any single character.

b = Firmware: Any single character.

c = Hazardous Location Certification: I7, KC, KE 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.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- 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 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.*
- 4. To maintain ingress protection ratings IP66 and IP67, thread sealant is required for cable entries and blanking plugs.*



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EQUIPMENT (continued):

The Rosemount 2230 Graphical Field Display shows inventory tank gauging data such as level, temperature, and pressure via the intrinsically safe 2-wire Raptor Tankbus(1). The four soft keys allow you to navigate through the different menus and provides all tank data, directly on the field. The circuitry of the Model 2230 Graphical Field Display circuitry is contained on two printed circuit boards and a LCD display module all housed within a Type 4X; IP66; IP67 housing. The Model 2230 Graphical Field Display's housing is constructed of Aluminum Alloy 380. The enclosure is painted two tones with the top half painted in P/N Polane HS Rosemount Blue, manufactured by Sherwin- William. The bottom half is painted in grey, AE0020-0705627 manufactured by Dupont. The enclosure is shaped $\frac{3}{4}$ of a moon with a length of 124mm, a diameter of 152mm and a height of approximately 78mm. The Model 2230 Graphical Field Displays have an ambient operating temperature range of -50°C to $+70^{\circ}\text{C}$.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Modification of the enclosure