CERTIFICATE

(1) EU-Type Examination

(2) **Equipment or protective systems intended for use in potentially explosive atmospheres - Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number: **KEMA 07ATEX0136 X** Issue Number: **3**

(4) Product: **Two-Wire Universal Temperature Transmitter Model FRC0E…, FRC1E… and FRC2E…**

(5) Manufacturer: **Fuji Electric France S.A.S.**

(6) Address: **46, rue Geogres Besse- Z.I. du Brézet, F-63039 Clermont-Ferrand, France**

(7) This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) DEKRA Certification B.V., Notified Body number 0344 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential test report number 210846900 issue 3.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0 : 2012 + A11 : 2013 **EN 60079-11 : 2012**

except in respect of those requirements listed at item 18 of the Schedule.

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

(12) The marking of the product shall include the following:

II 1 G Ex ia IIC T6 ... T4 Ga

Date of certification: 12 June 2018

DEKRA Certification B.V.

R. Schuller
Certification Manager

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(13) # SCHEDULE

(14) **to EU-Type Examination Certificate KEMA 07ATEX0136 X** Issue No. **3**

(15) **Description**

The Two-Wire Universal Temperature Transmitters Model FRC0E…, FRC1E… and FRC2E… convert a millivolt input signal into a 4 to 20 mA signal, with HART protocol communication. The Temperature Transmitter is suitable for connection to e.g. a temperature sensor, a potentiometer or resistor. Transmitter Model FRC0E is enclosed in a body made of plastic. Transmitter Model FRC1E… or FRC2E… is Transmitter Model FRC0E…, fitted in an aluminium or a stainless steel enclosure.

Optionally all types of Transmitters may be provided with a two button indicator. Scaling, linearization and other configurations are selectable via two control buttons.

Ambient temperature range: -40 °C to +80 °C for T4
-40 °C to +65 °C for T5
-40 °C to +50 °C for T6

Electrical data

Supply/Output circuit (terminals + and -):
in type of protection intrinsic safety Ex ia IIC, only for connection to a certified intrinsically safe circuit with linear characteristics, with the following maximum values:
U_i = 30 V; I_i = 96 mA; P_i = 0,72 W; C_i = 0 µF; L_i = 0 mH.

Input circuit (terminals 1, 2, 3 and 4):
in type of explosion protection intrinsic safety Ex ia IIC, with the following maximum values:
U_o = 6,4 V; I_o = 30 mA; P_o = 48 mW; C_o = 20 µF; L_o = 20 mH.

Installation instructions

The instructions provided with the product shall be followed in detail to assure safe operation.

(16) **Report Number**

No. 210846900 issue 3

(17) **Specific conditions of use**

1. Because the enclosure of the Temperature Transmitter Model FRC1E… is made of aluminium alloy, when used in an explosive gas atmosphere requiring the use of apparatus of equipment category 1 G, the Temperature Transmitter Model FRC must be installed so, that even in the event of rare incidents, an ignition source due to impact or friction between the enclosure and iron/steel is excluded.

2. On application of the Temperature Transmitter Model FRC0E… in an explosive gas atmosphere requiring the use of apparatus of equipment category 1 G, precaution shall be taken to avoid danger of ignition due to electrostatic charges on the enclosure.

(18) **Essential Health and Safety Requirements**

Covered by the standards listed at item (9).

(13) # SCHEDULE

(14) **to EU-Type Examination Certificate KEMA 07ATEX0136 X** Issue No. **3**

(19) **Test documentation**

As listed in Test Report No. 210846900 issue 3.

(20) **Certificate history**

Issue 1	-	210846900	initial certificate
Issue 2	-	216323500	changes of the electronics, and updates of the standards applied
Issue 3	-	420111900	Minor design changes and newer edition of the standards applied