

# 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: **DEKRA 13ATEX0222 X** Issue Number: **2**

(4) Product: **Electronic Pressure Transmitters Type FCX-AIII or FCX-AII**

(5) Manufacturer: **Fuji Electric Co., Ltd.**

(6) Address: **1, Fuji-machi, Hino-City, Tokyo 191-8502, JAPAN**

(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 216829300, issue 2.

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

**EN 60079-0 + 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 T4 / T5 Ga**  
**II 1 D Ex ia IIIC T100 °C / T135 °C Da**

Date of certification: 6 July 2018

DEKRA Certification B.V.

R. Schuller  
Certification Manager



(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate DEKRA 13ATEX0222 X**

Issue No. 2

(15) **Description**

Electronic Pressure Transmitters Type FCX-AIII or FCX-AII are used to measure the differential, absolute or relative pressure of a liquid or a gas. The measurement signal is converted into a digital signal. Different versions are available: 4-20mA, Foundation Fieldbus / FISCO and SIL. Optionally, the transmitter is provided with a digital or analog display.

The enclosure of the transmitter provides a degree of ingress protection of at least IP66 in accordance with EN 60529.

Ambient temperature ranges:

For 4-20mA/HART models and also for SIL option:

Ex ia IIC T4 Ga;  $T_a = -40\text{ °C to }+70\text{ °C}$

Ex ia IIC T5 Ga;  $T_a = -40\text{ °C to }+50\text{ °C}$

Ex ia IIIC T135 °C Da;  $T_a = -40\text{ °C to }+70\text{ °C}$

Ex ia IIIC T100 °C Da;  $T_a = -40\text{ °C to }+50\text{ °C}$

For Fieldbus Foundation:

Ex ia IIC T4 Ga;  $T_a = -40\text{ °C to }+60\text{ °C}$

Ex ia IIIC T135 °C Da;  $T_a = -40\text{ °C to }+60\text{ °C}$

**Electrical data**

Supply and output signal 4-20mA/  
HART versions;

In type of protection intrinsic safety Ex ia IIC, only for connection to a certified intrinsically safe circuit, with following maximum values:

$U_i = 28\text{ Vdc}$

$I_i = 94,3\text{ mA}$

$P_i = 660\text{ mW}$

$L_i = 0,6 / 0,7\text{ mH}$  for models with/without Analog Indicator

$C_i = 26 / 36\text{ nF}$  for models with/without Arrester Board

Supply and output signal  
Foundation Fieldbus

In type of protection intrinsic safety Ex ia IIC, only for connection to a certified intrinsically safe circuit, with following maximum values:

$U_i = 24\text{ Vdc}$

$I_i = 250\text{ mA}$

$P_i = 1,2\text{ W}$

$L_i = 9,87\text{ }\mu\text{H}$  for models with/without Analog Indicator

$C_i = 4,04\text{ nF}$  for models with/without Arrester Board

or FISCO parameters:

$U_i = 17,5\text{ V}$

$I_i = 380\text{ mA}$

$P_i = 5,32\text{ W}$

$C_i = 4,04\text{ nF}$

$L_i = 9,87\text{ }\mu\text{H}$



(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate DEKRA 13ATEX0222 X**

Issue No. 2

Supply and output signal SIL versions

In type of protection intrinsic safety Ex ia IIC, only for connection to a certified intrinsically safe circuit, with following maximum values:

$U_i = 28$  Vdc

$I_i = 110$  mA

$P_i = 770$  mW

$L_i = 0,7 / 0,6$  mH for models with/without Analog Indicator

$C_i = 39 / 26$  nF for models with/without Arrester Board

**Installation instructions**

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

(16) **Report Number**

No. 216829300, issue 2.

(17) **Specific conditions of use**

Measured process pressure and process temperature are limited for each specific installation in order to assure that the design ratings are not exceeded in any application. The application process temperature in conjunction with ambient temperature of the application does not elevate the temperature inside the enclosure above the maximum ambient temperature rated for the transmitter which is 70 °C for temperature code T4 and 50 °C for temperature code T5.

Suitable rated cable glands or plugs shall be used to assure IP66/IP67 rating of the final installation.

Installations for models incorporating the Arrester Board shall consider that these models do not assure electrical insulation of minimum 500Vac between the input circuitry and enclosure.

In case of Ga application, sufficient actions shall be taken to avoid, even in case of rare fault, an ignition hazard due to impact or friction.

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

Covered by the standards listed at item (9).

(19) **Test documentation**

As listed in Report No. 216829300, issue 2.

(20) **Certificate history**

Issue 0 - 216826100

initial certificate

Issue 1 - 222308300

added new Foundation Fieldbus / FISCO versions and SIL versions; Assessed in accordance with latest edition of the standard; EN 60079-26 removed.

# CERTIFICATE

## (1) Type Examination

(2) **Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC**

(3) Type Examination Certificate Number: **DEKRA 13ATEX0221** Issue Number: **1**

(4) Equipment: **Electronic Pressure Transmitters Type FCX-AIII or FCX-AII**

(5) Manufacturer: **Fuji Electric Co., Ltd.**

(6) Address: **1, Fuji-machi, Hino-City, Tokyo 191-8502, JAPAN**

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

(8) DEKRA Certification B.V., certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems 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 no. 216827300.

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

**EN 60079-0 : 2012**

**EN 60079-15 : 2010**

**EN 60079-31 : 2009**

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This Type Examination Certificate relates only to the design, examination and tests of the specified equipment and not to the manufacturing process and supply of this equipment.

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



**II 3 G Ex nA IIC T5 Gc**  
**II 3 D Ex tc IIIC T100 °C Dc**

This certificate is issued on 18 April 2014 and, as far as applicable, shall be revised before the date of cessation of presumption of conformity of (one of) the standards mentioned above as communicated in the Official Journal of the European Union.

DEKRA Certification B.V.

R. Schuller  
Certification Manager



(15) **Description**

Electronic Pressure Transmitters Type FCX-AIII or FCX-AII are used to measure the differential, absolute or relative pressure of a liquid or a gas. The measurement signal is converted into an electrical analog and/or digital signal.

Optionally, the transmitter is provided with a digital display.

The enclosure of the transmitter provides a degree of ingress protection of at least IP66/67 in accordance with EN 60529.

Ambient temperature range -40 °C to +70 °C.

**Electrical data**

Supply:           U = 10.5 ... 45 Vdc  
                      I = 22.5 mA max.  
                      P ≤ 1.0125 W max

**Installation instructions**

The installation instructions as provided by the manufacturer shall be followed in detail in order to assure proper and safe functioning of the equipment, taking into account the local installation rules.

(16) **Test Report**

No. 216827300.

(17) **Special conditions for safe use**

None.

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

Covered by the standards listed at (9).

(19) **Test documentation**

As listed in Test Report No. 216827300.

# CERTIFICATE

## (1) EC-Type Examination

(2) **Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC**

(3) EC-Type Examination Certificate Number: **DEKRA 13ATEX0220 X** Issue Number: **1**

(4) Equipment: **Electronic Pressure Transmitters Type FCX-AIII or FCX-AII**

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

**Wuxi Kunlun Fuji Instruments Co., Ltd.**

(6) Address: **1, Fuji-machi, Hino-City, Tokyo 191-8502, Japan  
46, rue Georges Besse, 63039 Clermont Ferrand,  
France**

**B-5-C Wuxi National Hi-tech Industrial Development  
Zone, wuxi, Jiangsu 214028, China**

(7) This equipment 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 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems 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 216826100 issue 1.

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

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

**EN 60079-1 : 2007**

**EN 60079-31 : 2009**

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment according to the Directive 94/9/EC. Further requirements of the directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

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



**II 2 G Ex d IIC T5 / T6 Gb  
II 2 D Ex tb IIIC T85 °C / T100 °C Db**

This certificate is issued on 8 January 2015 and, as far as applicable, shall be revised before the date of cessation of presumption of conformity of (one of) the standards mentioned above as communicated in the Official Journal of the European Union.

DEKRA Certification B.V.

R. Schuller  
Certification Manager





(13) **SCHEDULE**

(14) **to EC-Type Examination Certificate DEKRA 13ATEX0220 X**

Issue No. 1

(15) **Description**

Electronic Pressure Transmitters Type FCX-AIII or FCX-AII are used to measure the differential, absolute or relative pressure of a liquid or a gas.

The measurement signal is converted into an electrical analogue and/or digital signal.

Optionally, the transmitter is provided with an analogue or digital display.

The enclosure of the transmitter provides a degree of protection of at least IP66/67 in accordance with EN 60529.

Ambient temperature range :   -40 °C to +85 °C for T5 / T100 °C.  
  -40 °C to +65 °C for T6 / T85 °C.

**Electrical data**

Power supply: 45 Vdc max.

Output: 4 ... 20 mA

**Installation instructions**

The installation instructions as provided by the manufacturer shall be followed in detail in order to assure proper and safe functioning of the equipment, taking into account the local installation rules.

(16) **Test Report**

No. 216826100 issue 1.

(17) **Special conditions for safe use**

In accordance with section 5.2.2 of EN 60079-1, the constructional gap (ic), being less than those required by table 1, have been specified in drawings TC305618 and TC305619 (Flame paths drawing) which are part of the test documentation as mentioned in (19).

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

Covered by the standards listed at (9).

(19) **Test documentation**

As listed in Test Report No. 216826100 issue 1.