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 KEM 10.0086	Issue No: 2	Certificate history:
			Issue No. 3 (2012-09-06)
Status:	**Current**	Page 1 of 4	Issue No. 2 (2012-02-03)
			Issue No. 1 (2011-11-09)
Date of Issue:	**2012-02-03**		Issue No. 0 (2010-10-04)

Applicant: **Yokogawa Electric Corporation**
2-9-32, Nakacho
Musashino-shi
Tokyo, 180-8750
Japan

Electrical Apparatus: **Temperature transmitter Type YTA70-E/SS2, Type YTA70-E/Z and Type YTA70/J**

Optional accessory:

Type of Protection: **Ex ia IIC; Ex ia IIIC; Ex ia I**

Marking:
Ex ia IIC T6 ... T4 Ga
Ex ia IIIC Da
Ex ia I Ma

Approved for issue on behalf of the IECEx Certification Body: C.G. van Es

Position: Certification Manager

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:

DEKRA Certification B.V.
Utrechtseweg 310
6812 AR Arnhem
The Netherlands[
All testing, inspection, auditing and certification activities of the former KEMA Quality are an integral part of the DEKRA Certification Group.]

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Manufacturer: **Yokogawa Electric Corporation**
2-9-32, Nakacho
Musashino-shi
Tokyo, 180-8750
Japan

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 : 2007-10 Edition:5	Explosive atmospheres - Part 0:Equipment - General requirements
IEC 60079-11 : 2006 Edition:5	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-26 : 2006 Edition:2	Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga
IEC 61241-11 : 2005 Edition:1	Electrical apparatus for use in the presence of combustible dusts - Part 11: Protection by intrinsic safety 'iD'

*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:

NL/KEM/ExTR10.0093/00 NL/KEM/ExTR10.0093/01 NL/KEM/ExTR10.0093/02

Quality Assessment Report:

NL/KEM/QAR07.0008/03 NL/KEM/QAR07.0009/03

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

For details, refer to the Attachment.

CONDITIONS OF CERTIFICATION: NO

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

- Addition of YTA70-J with HART 7 protocol
- Standards update as stated above
- Product evaluation according to IEC 60079-11: 2006 for the mine application; for details, refer to the Attachment.

Annex:

Attachment to IECEx KEM 10.0086, Issue 02.pdf

Attachment 1 to IECEx KEM 10.0086, Issue 02

General product information:

Temperature Transmitters, Type YTA70-E/SS2 with HART 5 protocol, Type YTA70-E/Z with HART 6 protocol and Type YTA70/J with HART 7 protocol, are used to convert temperature measurement signals from a temperature sensor or a mV signal into a 4 ... 20 mA current signal with digital communication (HART).

The transmitter is suitable for mounting in an enclosure form B according to DIN 43729, or equivalent.

Type of protection Ex ia IIC Ga
The transmitter shall be mounted in an enclosure that provides a degree of protection of at least IP20 according to IEC 60529.

Ambient temperature range: -40 °C to +45 °C for temperature class T6
-40 °C to +85 °C for temperature class T4

Type of protection Ex ia I Ma
The transmitter shall be mounted in an enclosure that provides a degree of protection of at least IP54 according to IEC 60529, that is suitable for the application and is correctly installed.

Ambient temperature range: -40 °C to +85 °C

Type of protection Ex ia IIIC Da
The transmitter shall be mounted in an enclosure that provides a degree of protection of at least IP6X according to IEC 60529 eg. a form B enclosure according to DIN 43729. The surface temperature of the enclosure is equal to the ambient temperature +20 K for a dust layer with a maximum thickness of 5 mm.

Electrical data

Supply and output circuit (terminals 1 and 2):
In type of protection intrinsic safety Ex ia IIC, Ex ia IIIC or Ex ia I, only for connection to a certified intrinsically safe circuit, with the following maximum values:
U_i = 30 V; I_i = 120 mA; P_i = 0.84 W; C_i = 1 nF; L_i = 10 µH.

Sensor circuit (terminals 3 ... 6):
In type of protection intrinsic safety Ex ia IIC, Ex ia IIIC or Ex ia I, with following maximum values:
U_o = 9.6 V; I_o = 28 mA; P_o = 67 mW; C_o = 3.5 µF; L_o = 35 mH.

The sensor circuit is not infallibly galvanically isolated from the supply and output circuit.
However, the galvanic isolation between the circuits is capable of withstanding a test voltage of 500 Vac during 1 minute.