



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 07.0044** issue No.:0 Certificate history:

Status: **Current**

Date of Issue: **2007-11-26** Page 1 of 3

Applicant: **Yokogawa Electric Corporation**
2-9-32 Naka-cho
Muasshini-shi
Tokyo
180-8750
Japan

Electrical Apparatus: **Temperature Transmitter type YTA...**
Optional accessory:

Type of Protection: **Ex d and Ex tD**

Marking: **Ex d IIC T6/T5
Ex tD A21 IP67 T70 °C, T90 °C
Tamb (Gas) -40 to +75 °C (T6) or -40 to +80 °C (T5)
Tamb (Dust) -40 to +65 °C (T70 °C)
or -40 to +80 °C (T90 °C)**

Approved for issue on behalf of the IECEx Certification Body: T. Pijpker

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:

KEMA Quality B.V.
Utrechtseweg 310
6812 AR Arnhem
The Netherlands





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

Manufacturing location(s):
Yokogawa Electric Corporation
2-9-32 Naka-cho
Musashino-shi
Tokyo
180-8750
Japan

Yokogawa electric Asia Pte. Ltd.
5 Bedok South Road
Singapore 469270
Singapore

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 : 2004 Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-1 : 2007-04 Edition: 6	Explosive atmospheres - Part : Equipment protection by flameproof enclosures "d"
IEC 61241-0 : 2004 Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements
IEC 61241-1 : 2004 Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 1: Protection by enclosures "tD"

*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/ExTR07.0051/00

Quality Assessment Report:

NL/KEM/QAR07.0008/00



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Temperature Transmitter type YTA..., with or without display, converts a measurement input signal of separately approved temperature sensors into an analogue and/or digital output signal. Ambient temperature range: -40 °C to +65 °C for maximum surface temperature T 70 °C-40 °C to +75 °C for temperature class T6-40 °C to +80 °C for maximum surface temperature T 90 °C and for temperature class T5. The enclosure provides a degree of protection of at least IP67 in accordance with IEC 60529.

CONDITIONS OF CERTIFICATION: NO



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Certificate No.: **IECEX KEM 09.0032X** issue No.:2

Status: **Current**

Date of Issue: **2011-11-18** Page 1 of 5

Certificate history:

Issue No. 2 (2011-11-18)
Issue No. 1 (2010-1-19)
Issue No. 0 (2009-8-28)

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

Electrical Apparatus: **Temperature Transmitter Model YTA series**
Optional accessory:

Type of Protection: **Ex i**

Marking: **Ex ia IIC T4 ... T5 Ga**
Ex ic IIC T4 ... T5 Gc

*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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Issue No.: 2

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

Manufacturing location(s):
**Yokogawa Electric Asia
Pte. Ltd.**
5 Bedok South Road
Singapore 469270
Singapore

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 product 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 identifying documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Edition: 6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-11 : 2011-06 Edition: 6.0	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

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/ExTR09.0037/00

NL/KEM/ExTR09.0037/01

NL/KEM/ExTR09.0037/03

Quality Assessment Report:

NL/DEK/QAR11.0026/01

NL/KEM/QAR08.0032/04



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Description

Temperature Transmitters Model YTA series convert the measurement signal of temperature sensors into a 4 - 20 mA current signal with digital communication.

Ambient temperature range:

-40 °C ... +50 °C for temperature class T5,

-40 °C ... +70 °C for temperature class T4.

CONDITIONS OF CERTIFICATION: YES as shown below:

"X" marking and this condition of certification only applies to the Temperature Transmitters in type of protection Ex ia IIC Ga:

Because the enclosure of the Temperature Transmitter is made of aluminium, if it is mounted in an area where the use EPL Ga apparatus is required, it must be installed such, that, even in the event of rare incidents, ignition sources due to impact and friction sparks are excluded.



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EQUIPMENT(continued):

Electrical data

Supply/output circuit (terminals C, + and -):

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

$U_i = 30 \text{ V}$, $I_i = 165 \text{ mA}$, $P_i = 900 \text{ mW}$, $C_i = 20 \text{ nF}$, $L_i = 730 \text{ }\mu\text{H}$;

or, in type of protection intrinsic safety Ex ic IIC, only for connection to a certified intrinsically safe circuit, with the following maximum values:

$U_i = 30 \text{ V}$, $I_i = \text{any}$, $P_i = \text{any}$, $C_i = 20 \text{ nF}$, $L_i = 730 \text{ }\mu\text{H}$.

Sensor input circuit (terminals 1, 2, 3, 4 and 5):

in type of protection intrinsic safety Ex ia IIC, or Ex ic IIC with the following maximum values:

$U_o = 9.0 \text{ V}$, $I_o = 40 \text{ mA}$, $P_o = 90 \text{ mW}$, $C_o = 0.7 \text{ }\mu\text{F}$, $L_o = 10 \text{ mH}$.



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

Issue 1:

Change of parameter values I_i and P_i to "any", for type of protection Ex ic, because the Temperature Transmitter has a built-in current limiting circuit.

X-marking is not applicable for Transmitters in type of protection Ex ic.

Issue 2:

Re-assessment according to the latest versions of the standards and assessment of additional electronics and change entity parameters.