



Member of the FM Global Group

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CERTIFICATE OF COMPLIANCE

HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT

This certificate is issued for the following equipment:

YTA50-A/DS2 Temperature Transmitter.

IS / I / 1 / ABCD / T6 Ta = 60°C; T4 Ta = 85°C — 5300Q602; Entity;
I/O/AEx ia / IIC / T6 Ta=60°C, T4 Ta=85°C 5300Q602; Entity;
NI / I / 2 / ABCD / T6 Ta = 60°C; T4 Ta = 85°C;
ANI / I / 2 / ABCD — 5300Q602 Nonincendive Field Wiring

Entity Parameters:

V_{Max} = 30 V, I_{Max} = 120 mA, P_{Max} = 0.84 W, C_i = 0 µF, L_i = 10 µH.

NI Field Circuit Parameters:

V_{Max} = 35 V, C_i = 0 µF, L_i = 10 µH

Special Condition for Use:

1. The Transmitter shall be installed in compliance with the enclosure, mounting, and spacing, and segregation requirement of the ultimate application.

YTA70-E/DS2, YTA70-E/SS2, YTA70-E/Z. Temperature Transmitter.

IS / I / 1 / ABCD / T6 Ta = 60°C; T4 Ta = 85°C — 5300Q602; Entity;
I/O/AEx ia / IIC / T6 Ta=60°C, T4 Ta=85°C 5300Q602; Entity;
NI / I / 2 / ABCD / T6 Ta = 60°C; T4 Ta = 85°C;
ANI / I / 2 / ABCD — 5300Q602 Nonincendive Field Wiring

Entity Parameters:

V_{Max} = 30 V, I_{Max} = 120 mA, P_{Max} = 0.84 W, C_i = 0 µF, L_i = 10 µH.

V_t=9.6V, I_t=28 mA, C_a=3,5 µF, L_a=35mH, P_o=67,2mW

NI Field Circuit Parameters:

V_{Max} = 35 V, C_i = 0 µF, L_i = 10 µH

Special Condition for Use:

1. The Transmitter shall be installed in compliance with the enclosure, mounting, and spacing, and segregation requirement of the ultimate application.



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Equipment Ratings:

Intrinsically safe, with entity parameters, for use in Class I, Division 1, Groups A, B, C, and D in accordance with manufacturing's Control Drawing No. 5300Q602; Nonincendive for Class I, Division 2, Groups A, B, C, D Hazardous (Classified) Locations

FM Approved for:

Yokogawa Electric Corporation
Tokyo, Japan



This certifies that the equipment described has been found to comply with the following Approval Standards and other documents:

Class 3600	1998
Class 3610	2010
Class 3611	1999
Class 3810	1989

Original Project ID: 3024107

Approval Granted: May 28, 1999

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
050616	June 30, 2005		
060811	September 7, 2006		
3042053	March 23, 2011		
3042781	June 21, 2011		

FM Approvals LLC

Timothy Adam
Technical Team Manager

June 21, 2011
Date

(1) EC-TYPE EXAMINATION CERTIFICATE

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

(3) EC-Type Examination Certificate Number: **KEMA 06ATEX0191** Issue Number: **2**

(4) Equipment: **Temperature Transmitter Type YTA50-A / KS2 and YTA50-A / DS2**

(5) Manufacturer: **Yokogawa Electric Corporation**

(6) Address: **2-9-32, Nakacho, Musashino-shi, Tokyo, 180-8750 Japan**

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

(8) KEMA Quality 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 213338900/1.

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

EN 60079-0 : 2006
EN 61241-0 : 2006

EN 60079-11 : 2007
EN 61241-11 : 2006

EN 60079-26 : 2007

(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 1 G Ex ia IIC T4 or T6
II 1 D Ex iaD

This certificate is issued on April 15, 2010 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.

KEMA Quality B.V.


C.G. van Es
Certification Manager

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Integral publication of this certificate and adjoining reports is allowed. This Certificate may only be reproduced in its entirety and without any change.

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(13) **SCHEDULE**

(14) **to EC-Type Examination Certificate KEMA 06ATEX0191**

Issue No. 2

(15) **Description**

The Temperature Transmitter Type YTA50-A / KS2 and YTA50-A / DS2, suitable for mounting in an enclosure form B according to DIN 43729, is used to convert the temperature measurement signal of a temperature sensor or a mV signal into a 4 ... 20 mA current signal.

The relation between ambient temperature range and temperature class is shown in the table below.

Ambient temperature range	Temperature class
-40 °C ... +85 °C	T4
-40 °C ... +60 °C	T6

Electrical data

Supply and output circuit (terminals 1 and 2):

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

$U_i = 30 \text{ V}$; $I_i = 120 \text{ mA}$; $P_i = 0,84 \text{ W}$; $C_i = 1 \text{ nF}$; $L_i = 10 \text{ }\mu\text{H}$

Sensor circuit, Thermocouple, RTD, resistance or mV (terminals 3, 4, 5 and 6):

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

$U_o = 9,6 \text{ V}$; $I_o = 25 \text{ mA}$; $P_o = 60 \text{ mW}$; $C_o = 2,4 \text{ }\mu\text{F}$; $L_o = 33 \text{ mH}$

Installation instructions

The instructions, provided by the manufacturer, shall be followed in detail to assure safe operation of the equipment.

(16) **Test Report**

KEMA No. 213338900/1.

(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. 213338900/1.

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