

# CERTIFICATE OF CONFORMITY



1. **HAZARDOUS LOCATION ELECTRICAL EQUIPMENT PER CANADIAN REQUIREMENTS**
2. **Certificate No:** FM22CA0012X
3. **Equipment:** ISC40S-ab-cd-ef/g  
**(Type Reference and Name)** Inductive Conductivity Sensor
4. **Name of Listing Company:** YPA Europe BV
5. **Address of Listing Company:** Euroweg 2  
Amersfoort  
3825 HD  
Netherlands
6. The examination and test results are recorded in confidential report number:  
PR461853 dated 28<sup>th</sup> March 2022.
7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:  
CAN/CSA-C22.2 No. 60079-0:2019, CAN/CSA-C22.2 No. 60079-11:2014,  
CAN/CSA-C22.2 No. 61010-1:2015
8. If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.

## Certificate issued by:

J.E. Marquedant  
VP, Manager - Electrical Systems

28 March 2022

Date

To verify the availability of the Approved product, please refer to [www.approvalguide.com](http://www.approvalguide.com)

**THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE**

FM Approvals LLC. 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA  
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F 348 (Apr 21)



# SCHEDULE



Canadian Certificate Of Conformity No: FM22CA0012X

9. This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the product as examined, tested and Approved.

10. Equipment Ratings:

Intrinsically Safe for use in Class I, Division 1, Groups A, B, C, and D, Entity, in accordance with FF1-K1244QY, and Intrinsically Safe for use in and Class I, Zone 0, Ex ia, IIC, Entity, in accordance with FF1-K1244QY, hazardous (classified) locations.

11. The marking of the equipment shall include:

IS, CL I, DIV 1, GP ABCD; T4/T5/T6

CL I, ZN 0, Ex ia IIC T4/T5/T6 Ga

Ta = -30°C to 85°C/85°C/40°C

12. **Description of Equipment:**

**General**

Inductive Conductivity Sensor Model ISC40S series for connection to a certified associated Inductive Conductivity Transmitter which converts a measurement signal into an analogue or digital output signal.

Ambient and process temperature range:

-30°C to +85°C for temperature class T4, T5

-30°C to +40°C for temperature class T6

**ISC40S-ab-cd-ef/g Inductive Conductivity Sensor**

ab = Sensor type and sensor body material: GG (General Model, glass filled PEEK), GR (Retractable model, glass filled PEEK), GS (Shaft model, glass filled PEEK), TG (General model, PFA), TR (Retractable model, PFA), TS (Shaft model, PFA)

cd = Temperature sensor: T1 (PT1000)

ef = Connection type: XX (Permanent cable, length in meters (any number 01-99), VP (Variopin Connector)

g = Option specification not affecting intrinsic safety: Up to ten alphanumeric characters A to Z, 0 to 9 or a hyphen

Note: When T4 and Ta = 85°C, Process Temperature = 130°C maximum.

When T5 and Ta = 85°C, Process Temperature = 95°C maximum.

**Electrical data**

Sensor output circuits:

Entity parameters:  $U_i = 14.4V$ ;  $I_i = 88mA$ ;  $P_i = 0.32W$  and:

$C_i = 150nF$ ;  $L_i = 0.1mH$  (for permanently connected cable type),

$C_i = 0nF$ ;  $L_i = 0mH$  (for connector type),

or for connection to the certified intrinsically safe Yokogawa Inductive Conductivity Transmitter Model FLXA21 series, Model FLXA202 series or Model ISC202S series.

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# **SCHEDULE**



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**13. Specific Conditions of Use:**

1. The Sensor shall be installed and used so that dangers of ignition due to hazardous electrostatic charges cannot occur, especially in the case that the process medium is non-conductive.

**14. Test and Assessment Procedure and Conditions:**

This Certificate has been issued in accordance with FM Approvals Canadian Certification Scheme.

**15. Schedule Drawings**

A copy of the technical documentation has been kept by FM Approvals.

**16. Certificate History**

Details of the supplements to this certificate are described below:

| Date                        | Description     |
|-----------------------------|-----------------|
| 28 <sup>th</sup> March 2022 | Original Issue. |

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