

1 EU-TYPE EXAMINATION CERTIFICATE



2 Equipment or Protective systems intended for use in Potentially
Explosive Atmospheres - Directive 2014/34/EU

3 EU-Type Examination Certificate No: FM18ATEX0055X

4 Equipment or protective system: 2600T Series JDF300 Field Indicator
(Type Reference and Name)

5 Name of Applicant: ABB SpA

6 Address of Applicant: Via L Vaccani 4
Tremezzina Ossuccio Como 22016
Italy

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

8 FM Approvals Europe Ltd, notified body number 2809 in accordance with Article 17 of Directive 2014/34/EU of 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report number:

PR450563 dated 29th May 2019

9 Compliance with the Essential Health and Safety Requirements, with the exception of those identified in item 15 of the schedule to this certificate, has been assessed by compliance with the following documents:

EN 60079-0:2012+A11:2013, EN 60079-11:2012 and EN 60529:1991+A1:2000+A2:2013

10 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.

11 This EU-Type Examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

12 The marking of the equipment or protective system shall include:



II 1 G Ex ia IIC T6...T4 Ga

II 1 D Ex ia IIIC T85°C Da

Damien Mc Ardle
Certification Manager, FM Approvals Europe Ltd.

Issue date: 18th June 2019

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to EU-Type Examination Certificate No. FM18ATEX0055X

13 Description of Equipment or Protective System:

The Series 2600T model JDF300 Field Indicators are designed for remote indication in a Fieldbus system. The Multivariable Field Indicator Type JDF300 is an accessory device of the 2600T Series Transmitters and communicates with any host interface supporting Foundation Fieldbus protocols.

The JDF300 enclosure is the Type 2 ABB enclosure made of aluminium or stainless steel. The enclosure has an Ingress Protection rating of IP66/67.

Energy Limitation Parameters/Electrical Ratings

FF-816 $U_i = 24\text{Vdc}$, $I_i = 250\text{mA}$, $P_i = 1.2\text{W}$, $C_i \leq 5\text{nF}$, $L_i \leq 20\mu\text{H}$

FISCO $U_i = 17.5\text{Vdc}$, $I_i = 380\text{mA}$, $P_i = 5.32\text{W}$, $C_i \leq 5\text{nF}$, $L_i \leq 10\mu\text{H}$

T-Class: T4 @ $-50^\circ\text{C} < T_{\text{amb}} < +85^\circ\text{C}$ T5 @ $-50^\circ\text{C} < T_{\text{amb}} < +40^\circ\text{C}$ T6 @ $-50^\circ\text{C} < T_{\text{amb}} < +40^\circ\text{C}$
T85°C @ $-50^\circ\text{C} < T_{\text{amb}} < +75^\circ\text{C}$

Series 2600T model JDF300a3L1bS2c

a = Housing; A, B, S or T

b = Approvals: E1, EW, E7 or EU

c = Other options; Not relevant for Ex

14 Specific Conditions of Use:

1. When the manufacturer of the equipment has not identified the type of protection on the label, the user shall, on installation, mark the label with the type of protection used.
2. The JDF300 enclosure option a = A or B contains aluminium and is considered to present a potential risk of ignition by impact or friction. Care must be taken into account during installation and use to prevent impact or friction.
3. For areas subject to explosive dust atmospheres the painted surface of the JDF300 may store electrostatic charge and become a source of ignition in applications with a low relative humidity $< \sim 30\%$ relative humidity where the painted surface is relatively free of surface contamination such as dirt, dust, or oil. Guidance on protection against the risk of ignition due to electrostatic discharge can be found in IEC TS 60079-32-1. Cleaning of the painted surface shall only be done in accordance with the manufacturers instructions.

15 Essential Health and Safety Requirements:

The relevant EHSRs that have not been addressed by the standards listed in this certificate have been identified and assessed in the confidential report identified in item 8.

16 Test and Assessment Procedure and Conditions:

This EU-Type Examination Certificate is the result of testing of a sample of the product submitted, in accordance with the provisions of the relevant specific standard(s), and assessment of supporting documentation. It does not imply an assessment of the whole production.

Whilst this certificate may be used in support of a manufacturer's claim for CE Marking, FM Approvals Europe Ltd accepts no responsibility for the compliance of the equipment against all applicable Directives in all applications.

This Certificate has been issued in accordance with FM Approvals Europe Ltd's ATEX Certification Scheme.

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17 Schedule Drawings

A list of the significant parts of the technical documentation is annexed to this certificate and a copy has been kept by the Notified Body.

18 Certificate History

Details of the supplements to this certificate are described below:

Date	Description
18 th June 2019	Original Issue.

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Blueprint Report

ABB SpA (1000002443)

Class No 3610

Original Project I.D. 450563

Certificate I.D. FM18ATEX0055X

<u>Drawing No.</u>	<u>Revision Level</u>	<u>Drawing Title</u>	<u>Last Report</u>
3KXP000073U0109	-	2600T Series JDF300 Safety Plates	PR450563
3KXP000074U0109	18.05.2018	2600T Series JDF300 Multivariable Field Indicator - Control Drawing	PR450563
DS_JDF300-EN	A	2600T Series Data Sheet	PR450563
JDF 300 OI	A	2600T Series Operating Instructions	PR450563
PN3030-00	February 07	2600T Series Sensor Housing 264 IB - Machined	PR450563