

1 **UNITED KINGDOM CONFORMITY ASSESSMENT**
UK-TYPE EXAMINATION CERTIFICATE



2 **Equipment or Protective systems intended for use in Potentially Explosive Atmospheres –**
UKSI 2016:1107 (as amended) – Schedule 3A, Part 1

3 **UK-Type Examination Certificate No:** FM21UKEX0100X

4 **Equipment or protective system:** FTL825 Nivotester Liquiphant FailSafe
(Type Reference and Name) Power Supply & Level Limit Detection Device

5 **Name of Applicant:** Endress+Hauser SE+Co. KG

6 **Address of Applicant:** Hauptstrasse 1
Postfach 1261
Maulburg
D79689, Germany

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 Ltd, Approved Body number 1725, in accordance with Regulation 42 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Schedule 1 of the Regulations.

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

3044839 – RR228342 dated 12th July 2021

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 IEC 60079-0:2018 and EN 60079-11:2012

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 UK-Type Examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance with the Regulations. Further requirements of the Regulations apply to the manufacturing process and supply of this product. These are not covered by this certificate.

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



II (1) G [Ex ia Ga] IIC

II (1) D [Ex ia Da] IIIC



Victor Aluko-Oginni
Certification Manager, FM Approvals Ltd.

Issue date: 15th July 2021

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

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13 Description of Equipment or Protective System:

The Nivotester Liquiphant FailSafe Type FTL825 is a power supply and level limit detection device for intrinsically safe level limit switch Liquiphant FailSafe FTL8x with electronic insert FEL85 (NAMUR output signal). The Nivotester is an associated intrinsically safe apparatus for installation outside the explosion hazardous area. The connected transmitters may be located in hazardous locations.

The Type FTL825 is housed in a polymeric electronic enclosure meeting the requirements of IP20 designed for mounting on a "top hat rail" or DIN rail. The intrinsic outputs (terminal 82, 83 and 91, 92) are located at the top of the module and all non-intrinsically safe terminals are located at the bottom of the module thereby meeting the separation requirements. The FTL825 is designed to be mounted in an enclosure meeting the requirements of IP65.

Ambient temperature range at the FTL825 is -20°C to 60°C when mounted alone or -20°C to 50°C when mounted next to other modules or mounted in the field enclosure.

Electrical data:

Intrinsically Safe Output circuit (terminals 82 and 83 or 91 and 92):

$U_o \leq 22V_{dc}$; $I_o \leq 166mA$; $P_o \leq 970mW$; $C_o \leq 0.165\mu F$; $L_o \leq 2.8mH$;

Input circuit (AC version):

Supply voltage 85...253VAC, 50/60Hz, $\leq 3.8VA$ (AC supplied) or 85...253Vdc $\leq 2.0W$ (dc supplied)

Input circuit (DC version):

Supply voltage 20...30VAC, 50/60Hz, $\leq 3.6VA$ (AC supplied) or 20...60Vdc, $\leq 2.5W$ (dc supplied)

Relay outputs:

AC – 250VAC 2A, $\leq 500VA$;

DC – 40Vdc 2A, $\leq 80W$

Model Codes:

FTL825-abcdefg. Nivotester Liquiphant FailSafe

a = Approvals: (U2 or 8U)

b = Housing: (3 or 9(different color))

c = Power Supply: (A or E)

d = Switch output: (4)

e = Addition Approvals: (LC, LE, LF, LV, LG and LH)

f = Accessory Enclosed: (PA)

g = Tagging: (Z1)

14 Specific Conditions of Use:

1. To achieve an ingress protection of at least IP55: Protect the device from dust and humidity, e.g. in control rooms, or located in a suitable protective housing.

15 Essential Health and Safety Requirements:

In addition to the Essential Health and Safety Requirements covered by the standards listed at item 9, all other requirements are demonstrated in the confidential report identified in item 8.

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16 Test and Assessment Procedure and Conditions:

This UK-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 UKCA Marking, FM Approvals Ltd accepts no responsibility for the compliance of the equipment against all applicable Regulations in all applications.

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

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 Approved Body.

18 Certificate History

Details of the supplements to this certificate are described below:

Date	Description
15 th July 2021	Original Issue.

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