UK Type Examination Certificate CML 21UKEX3992X Issue 0

United Kingdom Conformity Assessment

1 Product or Protective System Intended for use in Potentially Explosive Atmospheres UKSI 2016:1107 (as amended) – Schedule 3A, Part 1

2 Equipment **Soliswitch FTE20/OFTE20 Level Limit Switch**

3 Manufacturer **Endress+Hauser Wetzer GmbH+Co. KG**

4 Address **Obere Wank 1**
D-87484 Nesselwang
Germany

5 The equipment is specified in the description of this certificate and the documents to which it refers.

6 Eurofins E&E CML Limited, Newport Business Park, New Port Road, Ellesmere Port, CH65 4LZ, United Kingdom, Approved Body Number 2503, in accordance with Regulation 43 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), 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 Schedule 1 of the Regulations.

The examination and test results are recorded in the confidential reports listed in Section 12.

7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to specific conditions of use (affecting correct installation or safe use). These are specified in Section 14.

8 This UK Type Examination certificate relates only to the design and construction of the specified equipment. Further requirements of the Regulations apply to the manufacturing process and supply of the product. These are not covered by this certificate.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

EN IEC 60079-0:2018 EN 60079-31:2014 EN 60529:1991+A1:2000+A2:2013

10 The equipment shall be marked with the following:

Refer to attached certificate FM 14ATEX0040X, Issue 0, Supplement 4 for specific marking of explosion protection symbols.

Refer to attached certificate FM 14ATEX0040X, Issue 0, Supplement 4 for marked code and ambient temperature range.

A. M. Good
Certification Officer

11 Description

For product description refer to attached certificate FM 14ATEX0040X, Issue 0, Supplement 4.

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	20 Oct 2021	R14537A/00	Issue of the prime certificate. FM 14ATEX0040X, Issue 0, Supplement 4 is attached and shall be referred to in conjunction with this certificate.

Note: Drawings that describe the equipment are listed or referred to in the Annex.

13 Conditions of Manufacture

For conditions of manufacture, refer to attached certificate FM 14ATEX0040X, Issue 0, Supplement 4.

Any routine tests/verifications required by the ATEX certification shall be conducted.

14 Specific Conditions of Use

For specific conditions of use, refer to attached certificate FM 14ATEX0040X , Issue 0, Supplement 4.

Certificate Annex

Certificate Number	**CML 21UKEX3992X**
Equipment	**Soliswitch FTE20/OFTE20 Level Limit Switch**
Manufacturer	**Endress+Hauser Wetzer GmbH+Co. KG**

The following documents describe the equipment defined in this certificate:

Issue 0

For drawings describing the equipment, refer to attached certificate FM 14ATEX0040X. In addition to the drawings listed on FM 14ATEX0040X, the following drawings include the additional marking required for this UK Type Examination certification:

Drawing No	Sheets	Rev	Approved date	Title
10000012823	1 of 1	-	20 Oct 2021	Nameplate Component units for Category 1 or 2

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:** **FM14ATEX0040X**

4 **Equipment or protective system: (Type Reference and Name)** **Soliswitch FTE20/OFTE20 Level Limit Switch**

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

6 **Address of Applicant:** **Obere Wank 1**
D-87484 Nesselwang
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 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:

3046971 dated 6th June 2014

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, EN 60079-31:2014 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 special conditions for safe 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 D Ex ta IIIC T110°C Da (Process connection in the vessel)

II 2 D Ex tb IIIC T110°C Db (Electronics enclosure in Zone 21 & 22)

Tamb = -20°C to +60°C

Digitally signed by Richard Zammitt
Foxit PhantomPDF Version: 10.1.4

Richard Zammitt
Certification Manager, FM Approvals Europe Ltd.

Issue date: 28th July 2021

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SCHEDULE

to EU-Type Examination Certificate No. FM14ATEX0040X

13 **Description of Equipment or Protective System:**

The Soliswitch, type FTE20 and OFTE20 are paddle type level limit switches for granular solids. They operate on the principle of a rotating paddle that when in contact with the process will stop rotating and operate a switch contact. The Type, OFTE20, is identical to FTE20, with identical mechanical dimension and material but with a different color additive.

The equipment enclosure has an ingress protection rating of IP66.

Operation Temperature Ranges:
The ambient operating temperature range of the Soliswitch FTE20/OFTE20 is -20°C to 60°C. Process temperature range is -20°C to +60°C.

Electrical data:
20...28VDC; 24VAC; 115VAC and 230VAC, 50/60Hz, 3.5VA

FTE20-Blbcdefgh. Soliswitch Level Limit Switch.

b = Process connection Material: 11 (Thread NPT 1 ½; PBT), 12 (Thread NPT 1 ¼; PBT), 13 (Thread G1 ½; PBT), 14 (Thread NPT 1 ½; 3034), 15 (Thread NPT 1 ¼; 3034), 16 (Thread G1 ½; PBT)
c = Version, Length: AA (Shaft, 75mm), AB (Shaft, 100mm), AC (Shaft, 120mm), AD (Shaft, 200mm), AE (Shaft, 300mm), AF (Rope, 2000mm, shortable), YY (shaft, up to 600 mm).
d = Power Supply: 1 (20 – 28VDC), 2 (24VAC), 3 (115VAC), 4 (230VAC)
e = Paddle Material: 1 (Standard; 304), 2(Fold-away; 304)
f = Additional Option: CA (Rotation monitoring)
g = Accessory Mounted: Not allowed
h = Accessory Enclosed: PA (weather protection cover)

OFTE20-Blbcdefghi. Soliswitch Level Limit Switch.

b = Process connection Material: 11 (Thread NPT 1 ½; PBT), 12 (Thread NPT 1 ¼; PBT), 13 (Thread G1 ½; PBT), 14 (Thread NPT 1 ½; 303), 15 (Thread NPT 1 ¼; 303), 16 (Thread G1 ½; PBT)
c = Version, Length: AA (Shaft, 75mm), AB (Shaft, 100mm), AC (Shaft, 120mm), AD (Shaft, 200mm), AE (Shaft, 300mm), AF (Rope, 2000mm, shortable), YY (shaft, up to 600 mm).
d = Power Supply: 1 (20 – 28VDC), 2 (24VAC), 3 (115VAC), 4 (230VAC)
e = Paddle Material: 1 (Standard; 304), 2(Fold-away; 304)
f = Customer: NN (Neutral, light grey (RAL7035)
g = Additional Option: CA (Rotation monitoring)
h = Accessory Mounted: Not allowed
i = Accessory Enclosed: PA (weather protection cover)

14 **Specific Conditions of Use:**

1. To prevent the risk of electrostatic sparking, non-metallic surfaces should be cleaned with a damp cloth.

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.

SCHEDULE

to EU-Type Examination Certificate No. FM14ATEX0040X

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.

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
12th June 2014	Original Issue.
28th April 2015	Supplement 1: Report Reference: 3053910 dated 20th April 2015. Description of the Change: Addition of Model OFTE20 which has the same electronics with an additional polymeric enclosure of the same material and dimensions but in a different color. All documentation has been updated with new drawing identification numbering as a result of Endress+Hauser's new documentation system requirements.
18th April 2019	Supplement 2: Report Reference: RR218141 dated 1st April 2019. Description of the Change: Certificate transferred from FM Approvals Ltd., notified body no. 1725, to FM Approvals Europe Ltd., notified body no. 2809. EN60079-0:2012 is updated to EN60079-0:2012 + A11:2013. EN60079-31:2009 (Ed 1) is updated to EN60079-31:2014 (Ed 2). EN60529:1991 + A1:2000 (Ed 2.1) is updated to EN60529:1991 + A1:2000 + A2:2013 (Ed 2.2).
09th March 2021	Supplement 3: Report Reference: RR225462 dated 05th March 2021. Description of the Change: Added Specific Condition of Use and "X" to certificate number. Added Tamb to Section 12. Added Model code options, including c = YY (shaft, up to 600 mm). EN60079-0:2012+A11:2013 is updated to EN IEC 60079-0:2018.
28th July 2021	Supplement 4: Report Reference: RR228590 dated 27th July 2021. Description of the Change: Removed non-technical document from critical document list.

Blueprint Report

Endress+Hauser Wetzer GmbH+Co KG (1000008070)

Class No 3616

Original Project I.D. 3046971

Certificate I.D. FM14ATEX0040X

Drawing No.	Revision Level	Drawing Title	Last Report
10000005112	B	Safety Instructions XA01034F/09/A3/xx.xx, XA01355O/09/A3/xx.xx	RR225462
10000005113	B	Nameplate IECEx_ATEX	RR225462
10000005114	A	FTE20_G3_4_0048	3053910
10000005570	A	Control Drawing FM XA01331F/09/EN/xx.xx	3053910
CAE000036-XXXXX-410	A	CircuitDiagram(APP) FTE20 Standard Board 24VDC	3053910
CAE000036-XXXXX-411	A	CircuitDiagram(APP) FTE20 Standard Board AC	3053910
CAE000036-XXXXX-600	A	AssemblyPlan (APP) A FTE20 Standard Board 24VDC	3053910
CAE000036-XXXXX-601	A	AssemblyPlan (APP) A FTE20 Standard Board AC	3053910
CAE000036-XXXXX-620	A	AssemblyPlan (APP) B FTE20 Standard Board 24VDC	3053910
CAE000036-XXXXX-621	A	AssemblyPlan (APP) B FTE20 Standard Board AC	3053910
CAE000036-XXXXX-801	A	ConductivePattern(APP) A1 FTE20 Standard Board	3053910
CAE000036-XXXXX-802	A	ConductivePattern(APP) B1 FTE20 Standard Board	3053910
CAE000043-XXXXX-410	B	CircuitDiagram(APP) FTE20 Option Board 24VDC	3053910
CAE000043-XXXXX-411	B	CircuitDiagram(APP) FTE20 Option Board 24VAC	3053910
CAE000043-XXXXX-412	B	CircuitDiagram(APP) FTE20 Option Board 48VAC	3053910
CAE000043-XXXXX-413	B	CircuitDiagram(APP) FTE20 Option Board 110VAC	3053910
CAE000043-XXXXX-414	B	CircuitDiagram(APP) FTE20 Option Board 230VAC	3053910
CAE000043-XXXXX-600	B	AssemblyPlan (APP) A FTE20 Option Board 24VDC	3053910
CAE000043-XXXXX-601	B	AssemblyPlan (APP) A FTE20 Option Board 24VAC	3053910
CAE000043-XXXXX-602	B	AssemblyPlan (APP) A FTE20 Option Board 48VAC	3053910
CAE000043-XXXXX-603	B	AssemblyPlan (APP) A FTE20 Option Board 110VAC	3053910
CAE000043-XXXXX-604	B	AssemblyPlan (APP) A FTE20 Option Board 230VAC	3053910
CAE000043-XXXXX-620	B	AssemblyPlan (APP) B FTE20 Option Board 24VDC	3053910
CAE000043-XXXXX-621	B	AssemblyPlan (APP) B FTE20 Option Board 24VAC	3053910
CAE000043-XXXXX-622	B	AssemblyPlan (APP) B FTE20 Option Board 48VAC	3053910
CAE000043-XXXXX-623	B	AssemblyPlan (APP) B FTE20 Option Board 110VAC	3053910
CAE000043-XXXXX-624	B	AssemblyPlan (APP) B FTE20 Option Board 230VAC	3053910
CAE000043-XXXXX-801	D	ConductivePattern(APP) A1 FTE20 OPtion Board	3053910
CAE000043-XXXXX-802	D	ConductivePattern(APP) B1 FTE20 OPtion Board	3053910
QUD_F0048_descriptionATEX_IECEx	6	Technical description for ATEX / IECEx	RR225462