

# CERTIFICATE OF CONFORMITY



1. **HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS**
2. **Certificate No:** FM20US0143X
3. **Equipment:** Soliswitch FTE20/OFTE20 Level Limit Switch  
(Type Reference and Name)
4. **Name of Listing Company:** Endress+Hauser Wetzer GmbH+Co. KG
5. **Address of Listing Company:** Obere Wank 1  
D-87484 Nesselwang  
Germany
6. The examination and test results are recorded in confidential report number:  
  
3046971 dated 6<sup>th</sup> June 2014
7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:  
  
FM Class 3600:2018, FM Class 3616:2011, FM Class 3810:2018,  
ANSI/IEC 60529:2004, ANSI/UL 61010-1:2017
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.
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:**  
  
Dust-ignitionproof for Class II, Division 1, Groups E, F and G; hazardous (classified) locations, indoors and outdoors (IP66) with an ambient temperature rating of -20°C to +60°C.
11. The marking of the equipment shall include:

## Certificate issued by:

J.E. Marquedant  
VP, Manager - Electrical Systems

5 March 2021

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  
T: +1 (1) 781 762 4300 F: +1 (1) 781 762 9375 E-mail: [information@fmapprovals.com](mailto:information@fmapprovals.com) [www.fmapprovals.com](http://www.fmapprovals.com)

# SCHEDULE



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Class II, Division 1, Groups E, F, G, Class III, Division 1; T4 Ta = -20°C to +60°C; IP66

## 12. Description of Equipment:

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.

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-FCbcdefgh. Soliswitch Level Limit Switch.**

b = Process connection Material: 11 (Thread NPT 1 1/2; PBT), 12 (Thread NPT 1 1/4; PBT), 13 (Thread G1 1/2; PBT), 14 (Thread NPT 1 1/2; 3034), 15 (Thread NPT 1 1/4; 3034), 16 (Thread G1 1/2; 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-FCbcdefghi. Soliswitch Level Limit Switch.**

b = Process connection Material: 11 (Thread NPT 1 1/2; PBT), 12 (Thread NPT 1 1/4; PBT), 13 (Thread G1 1/2; PBT), 14 (Thread NPT 1 1/2; 303), 15 (Thread NPT 1 1/4; 303), 16 (Thread G1 1/2; 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)

## 13. Specific Conditions of Use:

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

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# **SCHEDULE**



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

This Certificate has been issued in accordance with FM Approvals US Certification Requirements.

**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
6 <sup>th</sup> June 2014	Original Issue.
5 <sup>th</sup> March 2021	<b>Supplement 2:</b> Report Reference: RR225462 dated 5 <sup>th</sup> March 2021. Description of the Change: Certificate transferred to new format. Added Specific Condition of Use. Model code option c = YY (shaft, up to 600 mm) added. Standards are updated as follows: FM3600:2011 is updated to 2018. FM3810:2005 is updated to 2018. ANSI/ISA 61010-1:2004 is updated to ANSI/UL 61010-1:2015

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