

# CERTIFICATE OF CONFORMITY



1. **HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS**
2. **Certificate No:** FM16US0025
3. **Equipment:** Series 10 and 20 Proximity Switch  
**(Type Reference and Name)**
4. **Name of Listing Company:** TopWorx Inc
5. **Address of Listing Company:** 3300 Fern Valley Road  
Louisville, KY 40213  
USA
6. The examination and test results are recorded in confidential report number:  
  
3057132 dated 5<sup>th</sup> August 2016
7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:  
  
FM Class 3600:2011, FM Class 3611:2004, FM Class 3616:2011, FM Class 3810:2005
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:**  
  
Suitable for Class I, Division 1, Groups A, B, C and D; Nonincendive for Class I, Division 2, Groups A, B, C and D; Dust-ignitionproof for Class II, III, Division 1, Groups E, F and G; hazardous (classified) locations, with an ambient temperature rating of -50°C to +60°C for T6 and -50°C to +80°C for T4.

## Certificate issued by:



J.E. Marquedant  
Manager, Electrical Systems

11 July 2017

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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# SCHEDULE



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11. The marking of the equipment shall include:

Class I, Division 1, Groups A, B, C, D; T4 Ta = -50°C to +80°C; T6 Ta = -50°C to +60°C

Class I, Division 2, Groups A, B, C, D; T4 Ta = -50°C to +80°C; T6 Ta = -50°C to +60°C

Class II, III, Division 1, Groups E, F, G; T4 Ta = -50°C to +80°C; T6 Ta = -50°C to +60°C

12. **Description of Equipment:**

**General** - The Series 10 and 20 Proximity Switches are conduit-connected, magnetic devices which sense the presence or absence of ferrous materials and actuate an internal switching mechanism.

**Construction** - The enclosure is constructed of brass or stainless-steel material. It houses two magnets and a switching sub-assembly. Internal components used for switch control are encapsulated with an epoxy resin potting compound. The compartment, housing the switching mechanism, is hermetically sealed. The Series 10 and 20 devices are of substantially similar construction. Differences are with respect to location of conduit entry holes, sensitivity characteristics, physical size, electrical rating, contact configuration and/or the provision of four leads.

**Ratings** - The Series 10 and 20 Proximity Switches operate at 120/240/480VAC/24VDC and are rated for use over a temperature range of (T4) Ta = -50°C to +80°C; (T6) Ta = -50°C to +60°C.

**Series 10. Proximity Switch. Models 11-1abcd-e, 11-3abcd-e, 11-51bcd-e ABC-a-b-c-d.**

a = Sensing characteristic 1, 2 or 7

b = Conduit location 1, 2, 3, 4 or 5.

c = Housing material 1, 2, 3 or 4.

d\* = 0 (nonincendive and DIP), 4 (suitable for Class I, Division 1 and DIP for e = A, B, F wiring options) or 6 (nonincendive and DIP for e = A, B, F wiring options).

e = Lead length Ax, Bx, Fx (x = any digit designating length) or 00\* (not for Class I, Division 1).

**Series 20. Proximity Switch. Models 21-1abcd-Ae, 21-51bcd-Ae**

a = Sensing characteristic 1, 2 or 7.

b = Conduit location 1, 2, 3, 4 or 5.

c = Housing material 1, 2, 3 or 4.

d\* = 0 (nonincendive and DIP), 4 (suitable for Class I, Division 1 and DIP for e = A, B, F wiring options) or 6 (nonincendive and DIP for e = A, B, F wiring options).

e = Lead length Ax, Bx, Fx (x = any digit designating length) or 00\* (not for Class I, Division 1).

13. **Specific Conditions of Use:**

None

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

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

15. **Schedule Drawings**

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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
5 <sup>th</sup> August 2016	Original Issue.
22 <sup>nd</sup> May 2017	<u>Supplement 1:</u> Report Reference: RR209641 dated 22 <sup>nd</sup> May 2017 Description of the Change: Remove 30 series. Clarify product model code. Extend ambient temperature range for multiple T-codes.
11 <sup>th</sup> July 2017	<u>Supplement 2:</u> Report Reference: RR210337 dated 11 <sup>th</sup> July 2017 Description of the Change: Corrected upper ambient for T4 to +80°C.

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