

CERTIFICATE OF CONFORMITY



1. **HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS**
2. **Certificate No:** FM16US0219X
3. **Equipment:** V10 Immersion Sensor
(Type Reference and Name)
4. **Name of Listing Company:** SensoTech GmbH
5. **Address of Listing Company:** Steinfeldstraße 1
Magdeburg – Barleben 39179
Germany
6. The examination and test results are recorded in confidential report number:

3054678 dated 24th March 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 3615:2006, FM Class 3810:2005,
ANSI/NEMA 250:2003, ANSI/IEC 60529:2004
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:**

Explosionproof for Class I, Division 1, Groups A, B, C and D hazardous (classified) locations, indoors and outdoors (Type 4X and/or IP66) with an ambient temperature rating of T6* Ta = -20°C to 50°C, T1-T5* Ta -20°C to 60°C.

*See specific conditions of use for relationship between process temperature and temperature class.

Certificate issued by:

J. E. Marquedant
Manager, Electrical Systems

5 September 2016

Date

To verify the availability of the Approved product, please refer to 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; T6* Ta = -20°C to 50°C, T1-T5* Ta -20°C to 60°C; Type 4X

Class I Division 1, Groups A, B, C, D; T6* Ta = -20°C to 50°C, T1-T5* Ta -20°C to 60°C; IP65

12. **Description of Equipment:**

Construction - The Immersion Sensor V10 40-40 Ex and V10 40-40 Ex Pharma use a two compartment instrument housing. One compartment contains the electronics while the other compartment contains the terminal block. Both compartments are separated by a conductor bushing but since the conductor bushing has no Approval, the two separate compartments will be tested as one compartment. The sensor body (probe) is connected to the process thread which is part of the electronics compartment. The compartment of the sensor body is directly connected with the electronics compartment without any barrier. In this manner the sensor body and the electronic compartments build a common compartment.

Ratings - The Immersion Sensor V10 40-40 Ex and V10 40-40 Ex Pharma models are rated for a 24 Vdc, 3 Watt power supply. The probe assembly is rated for a process pressure of 100 bar. The transmitters are rated for use in an ambient temperature range of T6 Ta = -20°C to 50°C, T1-T5 Ta -20°C to 60°C. The transmitter probes are rated for use in a process temperature range listed in the table below.

**V10 40-40-ab. Immersion Sensor
Type 4X**

a = Model: 1 for Ex, 2 for Ex Pharma or 3 for CRN Ex.

b = Probe material: A, C, E, G, I, L, M.

**V10 40-40-ab. Immersion Sensor
IP65**

a = Model: 1 for Ex, 2 for Ex Pharma or 3 for CRN Ex.

b = Probe material: B, D, F, H, K, N.

13. **Specific Conditions of Use:**

<i>Relationship between process temperature and temperature class</i>	
*Temperature Class	Maximum Process Temperature [°C]
T1	450
T2	300
T3	200
T4	135
T5	100
T6	85

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

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

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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
24 th March 2016	Original Issue.
26 th July 2016	<u>Supplement 1:</u> Report Reference: – RR205716 dated 20 June 2016 Description of the Change: Addition of CRN version and minor document changes not affecting the safety of the product. The CRN version has less welds than Approved EX and EX Pharma versions.
5 th September 2016	<u>Supplement 2:</u> Report Reference: – RR206384 dated 5 th September 2016 Description of the Change: Correction of address for Listing Company.

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