

CERTIFICATE OF CONFORMITY



1. **HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS**
2. **Certificate No:** FM17US0311
3. **Equipment:** Series W Pressure and Temperature Switches
(Type Reference and Name)
4. **Name of Listing Company:** Beta BV
5. **Address of Listing Company:** Verrijn Stuartlaan 22
2288 EL Rijswijk
Netherlands
6. The examination and test results are recorded in confidential report number:

3028962 dated 29th August 2007
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 3615:2018, FM Class 3810:2005,
ANSI/ISA 60079-0:2005, ANSI/ISA 60079-1:2005, 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; Dust-ignitionproof for Class II/III, Division 1, Groups E, F and G; Flameproof for Class I, Zone 1, AEx d IIC hazardous (classified) locations, indoors and outdoors (Type 4X, IP66) with an ambient temperature rating of -40°C to +70°C (or +80°C).

Certificate issued by:

J.E. Marquedant
VP, Manager - Electrical Systems

20 November 2019

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

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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 = -40°C to 70°C, T5 Ta = -40°C to 80°C; Type 4X, IP66
Class II/III, Division 1, Groups E, F, G, T6 Ta = -40°C to 70°C, T5 Ta = -40°C to 80°C; Type 4X, IP66
Class I, Zone 1, AEx d IIC T6 Ta = -40°C to 70°C, T5 Ta = -40°C to 80°C; Type 4X, IP66

12. **Description of Equipment:**

General - The Series W Pressure and Temperature Switches consist of a micro-switch assembly mounted inside an explosionproof terminal housing. The micro-switch assembly is comprised of one or two micro-switches. The switch assembly is mechanically linked to the process-sensing element via an intermediate enclosure with venting valves which limit the pressure increase of the switch to within its stated operation limits.

Construction - The terminal housing is constructed of aluminium alloy or stainless steel. The housing consists of a base and threaded cover. The housing is provided with one ½-inch NPT, ¾-inch NPT or M20 conduit entry positioned 45° from the center line of the housing. The manufacturer offers the option of a second conduit entry of like size. The mechanical actuating pin of the micro-switch passes through a bushing which is threaded into the wall of the terminal housing. An o-ring seal is provided between the cover and the base to prevent the ingress of dust and water. External and internal ground terminals are provided on the terminal housing.

Wa-b-c-d-e-f Series Pressure and Temperature Switches.

a = Enclosure 3, 8, 9 or X.

b = Temperature/pressure range D302L, D304L, D306L, D309L, D352H, D354H, D356D, D356H, D358D, D359H, D402M, D404M, D406M, D408M, D506M, D508M, D608M, P301L, P302L, P304L, P306L, P308L, P402L, P402M, P404L, P404M, P406L, P406M, P408L, P408M, P502H, P502L, P502M, P504H, P504L, P504M, P506H, P506L, P506M, P508H, P508L, P508M, P578D, P706H, P706M, P708H, P708M, P709H, P808H, P809H, P904F, P904H, P906F, P906H, P908F, P908H, P909H, P918F, T528H, T548H, T568H, T588H, V301L, V304L, V404M, V406M or V506H.

c = Process connection A1B, A1N, A2B, A2N, A4B, A4B, A6B, A6N, A7B, A7N, A8B, A8N, B1B, B1N, B2B, B2N, B6B, B6N, B7B, B7N, B8B, B8N, BXB, BXX, C02, C03, C05, C10, CXX, D00, D02, DXX, H1B, H1N, H2B, H2N, H4B, H4N, H6B, H6N, H7B, H7N, HXX, M1B, M1N, M2B, M2N, M2X, M4B, M4N, M6B, M6N, M7B, M7N, MXX, P1B, P1N, P2B, P2N, P7B, P7N, PXN, S1B, S1N, S2B, S2N, S2P, S2X, S3B, S3N, S4B, S4N, S6B, S6N, S7B, S7G, S7N, S7X, S8B, S8N, SXB, SXN, SXX, X1B, X1N, X2B, X2N, XXN or XXX.

d = Process seal B1, E6, H1, H2, H3, H4, H5, H6, K5, M0, M1, M2, M5, N3, P1, P2, P4, P5, S0, S1, S2, S3, S4, S5, S6, SX, T1, T2, T3, T4, T5, V2, X2, X4, X5 or XX.

e = Switching element F1, F2, G1, H1, K1, L1, M1, M2, N1, N2, O1, O2, SR, U1, V1, X1, Y1, Y2, Z1 or Z2.

f = Options B, J, M, P, S, V or Y.

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.

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SCHEDULE



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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
29 th August 2007	Original Issue.
19 th October 2017	<u>Supplement 3:</u> Report Reference: RR210745 dated 19 th October 2017. Description of the Change: Minor documentation changes pertaining to ATEX/IECEX markings controlled by another agency. Model code changes (add NPT entry on SS housing; change notation on existing switch). Certificate updated to new format.
20 th November 2019	<u>Supplement 4:</u> Report Reference: RR221382 dated 20 th November 2019. Description of the Change: Section 3 of this certificate updated to reflect the correct product name. FM 3600 and 3615 updated to the 2018 editions as the changes from the previous editions are non-technical.

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