

CERTIFICATE OF CONFORMITY



1. **HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS**

2. **Certificate No:** FM17US0302X
3. **Equipment:** EE300Ex-series
(Type Reference and Name) Humidity and Temperature Transmitter

4. **Name of Listing Company:** E+E ELEKTRONIK Ges.m.b.H

5. **Address of Listing Company:** Langwiesen 7
Engerwitzdorf 4209
Austria

6. The examination and test results are recorded in confidential report number:

3049300 dated 2nd October 2017

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 3610:2015, FM Class 3611:2016, FM Class 3810:2005, ANSI/ISA 61010-1:2012, ANSI/ISA 60079-0:2013, ANSI/ISA 60079-11:2014, 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:**

Intrinsically Safe for Class I, II, III Division 1, Groups A, B, C, D, E, F, and G hazardous (classified) locations in accordance with drawing M1_1309080, Nonincendive for Class I, II, III Division 2, Groups A, B, C, D, E, F, and G hazardous (classified) locations, Intrinsically Safe for Class I, Zone 0, Group IIC hazardous (classified) locations in accordance with drawing M1_1309080, Intrinsically Safe for Class II and III, Zone 20, Group IIIC hazardous (classified) locations in accordance with drawing M1_1309080, IP65 with an ambient temperature

Certificate issued by:

17 September 2019

J. E. Marquedant
VP, Manager, Electrical Systems

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

SCHEDULE



US Certificate Of Conformity No: FM17US0302X

rating of -40°C to +60°C.

11. The marking of the equipment shall include:

Equipment Group I: EE300Ex without display

Class I, II, III, Division 1, Groups A, B, C, D, E, F and G; T4 Ta = -40°C to +60°C; Entity – M1_1309080; IP65

Class I, II, III, Division 2, Groups A, B, C, D, E, F and G; T4 Ta = -40°C to +60°C

Class I, Zone 0, AEx ia IIC T4 Ta = -40°C to +60°C Ga; Entity – M1_1309080; IP65

Zone 20, AEx ia IIIC T131°C Ta = -40°C to +60°C Da; Entity – M1_1309080; IP65

Remote Probe:

Class I, II, III, Division 1, Groups A, B, C, D, E, F and G; T6...T1; Entity – M1_1309080; IP65

Class I, II, III, Division 2, Groups A, B, C, D, E, F and G; T6...T1

Class I, Zone 0, AEx ia IIC T6...T1 Ga; Entity – M1_1309080; IP65

Zone 20, AEx ia IIIC T80°C Da; Entity – M1_1309080; IP65

Equipment Group II: EE300Ex with display

Class I, Division 1, Groups C, and D; T4 Ta = -40°C to +60°C; Entity – M1_1309080

Class I, Division 2, Groups A, B, C and D; T4 Ta = -40°C to +60°C; Entity – M1_1309080

Class I, Zone 0, AEx ia IIB T4 Ta = -40°C to +60°C Ga; Entity – M1_1309080

Class I, Zone 1, AEx ia IIC T4°C Ta = -40°C to +60°C Gb; Entity – M1_1309080

Remote Probe:

Class I, II, III, Division 1, Groups A, B, C, D, E, F and G; T6...T1; Entity – M1_1309080; IP65

Class I, II, III, Division 2, Groups A, B, C, D, E, F and G; T6...T1

Class I, Zone 0, AEx ia IIC T6...T1 Ga; Entity – M1_1309080; IP65

Zone 20, AEx ia IIIC T80°C Da; Entity – M1_1309080; IP65

12. **Description of Equipment:**

General - The EE300Ex transmitter is designed for gauge measurements of temperature and humidity in air. All signal outputs are available on two 4 to 20 mA analog outputs.

Construction - The EE300Ex transmitter consists of a single compartment electronics housing. The enclosure is of stainless steel and has an integrated or remote humidity and/or temperature sensor.

The EE300Ex transmitter is designed for use with the Product Configuration Adapter (PCA) and Connection cable (HA011068) in non-hazardous locations for software configuration.

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

SCHEDULE



US Certificate Of Conformity No: FM17US0302X

Ratings - The EE300Ex transmitter operates at 6.4-28 Vdc (700mW). The transmitters are rated for use in an ambient temperature range of -40°C to +60°C. The transmitter probe is rated for use in a process temperature range of -70°C to +200°C.

Equipment Group I: EE300Ex without display

EE300EX-M1A6HS2T1D0aK0L50PA0bcEX3d

a = Electrical Connection; E2, E13, E15, E17, E18, E19, E20, E21, E22 or E32

b = Filter; F2, F4, F5, F9, F10, F11, F12 or F13

c = Sensor Protection; C0 or C1

d = Software Code: 22 to 44 Digits (Not Safety Relevant)

Entity parameters:

Terminals	Vmax or Ui	Imax or li	Pi	Li	Ci
CH 1: + and -	6.4Vdc ≤ Ui ≤ 28Vdc	100mA	0.7W	0mH	2.2nF
CH 2: + and -	6.4Vdc ≤ Ui ≤ 28Vdc	100mA	0.7W	0mH	2.2nF

EE300EX-M1A6HS2aD0bcdefgEX3h

a = Model; T7, T9, T10, T15 or T22

b = Electrical Connection; E2, E13, E15, E17, E18, E19, E20, E21, E22 or E32

c = Probe – Cable Length; K0.2, K0.5, K1, K2, K3, K5 or K10

d = Probe Length; L65, L100, L200, L300, L400, L600; L800 or L1000

e = Zone Feedthrough (probe fitting): PA0, PA20, PA21, PA22, PA28, PA23 or PA25

f = Filter; F2, F4, F5, F9, F10, F11, F12 or F13

g = Sensor Protection; C0 or C1

h = Software Code: 22 to 44 Digits (Not Safety Relevant)

Entity parameters:

Terminals	Vmax or Ui	Imax or li	Pi	Li	Ci
CH 1: + and -	6.4Vdc ≤ Ui ≤ 28Vdc	100mA	0.7W	0mH	2.2nF
CH 2: + and -	6.4Vdc ≤ Ui ≤ 28Vdc	100mA	0.7W	0mH	2.2nF

Remote probe - Temperature Code:

T-Code	Ambient Temperature
T6	-40°C < Ta < 60°C
T5	-40°C < Ta < 75°C
T4	-40°C < Ta < 110°C
T3	-40°C < Ta < 175°C
T2	-40°C < Ta < 180°C
T1	-40°C < Ta < 180°C

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@fmaprovals.com www.fmaprovals.com

SCHEDULE



Member of the FM Global Group

US Certificate Of Conformity No: FM17US0302X

EE300EX-M3A6HS2T1D0aKOL70PA0EX3b

a = Electrical Connection; E2, E13, E15, E17, E18, E19, E20, E21, E22 or E32
b = Software Code: 7 to 10 Digits (Not Safety Relevant)

Entity parameters:

Terminals	Vmax or Ui	I _{max} or I _i	P _i	Li	Ci
CH 1: + and -	6.4Vdc ≤ Ui ≤ 28Vdc	100mA	0.7W	0mH	2.2nF
CH 2: + and -	6.4Vdc ≤ Ui ≤ 28Vdc	100mA	0.7W	0mH	2.2nF

EE300EX-M3A6HS2aD0bcdeEX3f

a = Model; T24
b = Electrical Connection; E2, E13, E15, E17, E18, E19, E20, E21, E22 or E32
c = Probe – Cable Length; K0.2, K0.5, K1, K2, K3, K5 or K10
d = Probe length; L150
e = Zone Feedthrough (probe fitting): PA0, PA26 or PA27
f = Software Code: 7 to 10 Digits (Not Safety Relevant)

Entity parameters:

Terminals	Vmax or Ui	I _{max} or I _i	P _i	Li	Ci
CH 1: + and -	6.4Vdc ≤ Ui ≤ 28Vdc	100mA	0.7W	0mH	2.2nF
CH 2: + and -	6.4Vdc ≤ Ui ≤ 28Vdc	100mA	0.7W	0mH	2.2nF

Remote probe - Temperature Code:

T-Code	Ambient Temperature
T6	-70°C < Ta < 60°C
T5	-70°C < Ta < 75°C
T4	-70°C < Ta < 110°C
T3	-70°C < Ta < 175°C
T2	-70°C < Ta < 200°C
T1	-70°C < Ta < 200°C

Equipment Group II: EE300Ex with display

EE300EX-M1A6HS2T1D1aKOL50PA0bcEX3d

a = Electrical Connection; E2, E13, E15, E17, E18, E19, E20, E21, E22 or E32
b = Filter; F2, F4, F5, F9, F10, F11, F12 or F13
c = Sensor Protection; C0 or C1
d = Software Code: 22 to 44 Digits (Not Safety Relevant)

Entity parameters:

Terminals	Vmax or Ui	I _{max} or I _i	P _i	Li	Ci
CH 1: + and -	6.4Vdc ≤ Ui ≤ 28Vdc	100mA	0.7W	0mH	2.2nF
CH 2: + and -	6.4Vdc ≤ Ui ≤ 28Vdc	100mA	0.7W	0mH	2.2nF

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@fmaprovals.com www.fmaprovals.com

SCHEDULE



Member of the FM Global Group

US Certificate Of Conformity No: FM17US0302X

EE300EX-M1A6HS2aD1bcdefgEX3h

- a = Model; T7, T9, T10, T15 or T22
- b = Electrical Connection; E2, E13, E15, E17, E18, E19, E20, E21, E22 or E32
- c = Probe – Cable Length; K0.2, K0.5, K1, K2, K3, K5 or K10
- d = Probe Length; L65, L100, L200, L300, L400, L600; L800 or L1000
- e = Zone Feedthrough (probe fitting): PA0, PA20, PA21, PA22, PA28, PA23 or PA25
- f = Filter; F2, F4, F5, F9, F10, F11, F12 or F13
- g = Sensor Protection; C0 or C1
- h = Software Code: 22 to 44 Digits (Not Safety Relevant)

Entity parameters:

Terminals	Vmax or Ui	I _{max} or I _i	P _i	L _i	C _i
CH 1: + and -	6.4Vdc ≤ Ui ≤ 28Vdc	100mA	0.7W	0mH	2.2nF
CH 2: + and -	6.4Vdc ≤ Ui ≤ 28Vdc	100mA	0.7W	0mH	2.2nF

Remote probe - Temperature Code:

T-Code	Ambient Temperature
T6	-40°C < Ta < 60°C
T5	-40°C < Ta < 75°C
T4	-40°C < Ta < 110°C
T3	-40°C < Ta < 175°C
T2	-40°C < Ta < 180°C
T1	-40°C < Ta < 180°C

EE300EX-M3A6HS2T1D1aKOL70PA0EX3b

- a = Electrical Connection; E2, E13, E15, E17, E18, E19, E20, E21, E22 or E32
- b = Software Code: 7 to 10 Digits (Not Safety Relevant)

Entity parameters:

Terminals	Vmax or Ui	I _{max} or I _i	P _i	L _i	C _i
CH 1: + and -	6.4Vdc ≤ Ui ≤ 28Vdc	100mA	0.7W	0mH	2.2nF
CH 2: + and -	6.4Vdc ≤ Ui ≤ 28Vdc	100mA	0.7W	0mH	2.2nF

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@fmaprovals.com www.fmaprovals.com

SCHEDULE



US Certificate Of Conformity No: FM17US0302X

EE300EX-M3A6HS2aD1bcdeEX3f

- a = Model; T24
- b = Electrical Connection; E2, E13, E15, E17, E18, E19, E20, E21, E22 or E32
- c = Probe – Cable Length; K0.2, K0.5, K1, K2, K3, K5 or K10
- d = Probe length; L150
- e = Zone Feedthrough (probe fitting): PA0, PA26 or PA27
- f = Software Code: 7 to 10 Digits (Not Safety Relevant)

Entity parameters:

Terminals	Vmax or Ui	I _{max} or I _i	P _i	L _i	C _i
CH 1: + and -	6.4Vdc ≤ Ui ≤ 28Vdc	100mA	0.7W	0mH	2.2nF
CH 2: + and -	6.4Vdc ≤ Ui ≤ 28Vdc	100mA	0.7W	0mH	2.2nF

Remote probe - Temperature Code:

T-Code	Ambient Temperature
T6	-70°C < Ta < 60°C
T5	-70°C < Ta < 75°C
T4	-70°C < Ta < 110°C
T3	-70°C < Ta < 175°C
T2	-70°C < Ta < 200°C
T1	-70°C < Ta < 200°C

13. **Specific Conditions of Use:**

Equipment Group I: EE300Ex without display

1. Filter options F2, F5, F10, F11 and F12 are not allowed in Groups A or B for Division 1 and EPL Ga IIC for Zone 0.
2. The EE300Ex Remote Probe is approved for in air applications only.
3. The serial software configuration port of the EE300EX may only be used with the Product Configuration Adapter (PCA) and Connection cable (HA011068).

Equipment Group II: EE300Ex with display

1. The EE300Ex Remote Probe is approved for in air applications only.
2. The serial software configuration port of the EE300EX may only be used with the Product Configuration Adapter (PCA) and Connection cable (HA011068).

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.

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

SCHEDULE



Member of the FM Global Group

US Certificate Of Conformity No: FM17US0302X

16. Certificate History

Details of the supplements to this certificate are described below:

Date	Description
2 nd October 2017	Original Issue.
30 th November 2017	<u>Supplement 2:</u> Report Reference: – RR211141 dated 30 th November 2017. Description of the Change: Updated standard editions to the latest revisions, added options for electrical connections, added option for probe fitting and converted certificate to new format.
17 th September 2019	<u>Supplement 3:</u> Report Reference: – RR219895 17 th September 2019. Description of the Change: Change to model code structure, manual format, new model code for configuration connection cable and optional gasket for 300bar probe construction.

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@fmaprovals.com www.fmaprovals.com