IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	**IECEx FMG 14.0032X**	Page 1 of 4
Status:	**Current**	Issue No: 13
Date of Issue:	2022-12-05	

Applicant:
Temposonics LLC
3001 Sheldon Drive
Cary NC 27513
United States of America

Equipment: **Level Plus Transmitters**

Optional accessory: Level Plus Digital Level Transmitters, Level Plus Analog Level Transmitters. (Tank Slayer, RefineME, SoClean, Chambered, LevelLimit)

Type of Protection: **Intrinsic Safety "ia"**

Marking: Ex ia IIC T4 Ga

Ta=-50°C to 71°C; IP65

Approved for issue on behalf of the IECEx
Certification Body:

J.E.Marquedant

Position:

VP, Manager - Electrical Systems

Signature:
(for printed version)

Date:
(for printed version)

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.

Certificate issued by:

FM Approvals LLC
1151 Boston-Providence Turnpike
Norwood, MA 02062
United States of America

FM Approvals
Member of the FM Global Group

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Manufacturer:

Temposonics LLC
3001 Sheldon Drive
Cary NC 27513
United States of America

Manufacturing
locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements.This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :
The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017   Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-11:2011   Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

This Certificate **does not** indicate compliance with safety and performance requirements
other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

US/FMG/ExTR14.0035/00	US/FMG/ExTR14.0035/01	US/FMG/ExTR14.0035/02
US/FMG/ExTR14.0035/03	US/FMG/ExTR14.0035/04	US/FMG/ExTR14.0035/05
US/FMG/ExTR14.0035/06	US/FMG/ExTR14.0035/07	US/FMG/ExTR14.0035/08
US/FMG/ExTR14.0035/09	US/FMG/ExTR14.0035/10	US/FMG/ExTR14.0035/11
US/FMG/ExTR14.0035/12	US/FMG/ExTR14.0035/13	

Quality Assessment Report:

GB/FME/QAR14.0005/08

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

Level Plus *Digital Level Transmitters. (Tank Slayer, RefineME, SoClean, Chambered, LevelLimit)*

Level Plus *Analog Level Transmitters. (Tank Slayer, RefineME, SoClean, Chambered, LevelLimit)*

SPECIFIC CONDITIONS OF USE: YES as shown below:
X-Marking

1.   The apparatus enclosure contains aluminum or titanium and is considered to constitute a potential risk of ignition by impact or friction. Care must be taken into account during installation and use to prevent impact or friction. (*When installed in a Ga Approval*)

2.   The maximum permitted ambient temperature of the Level Plus Digital/Analog Level Transmitter is 71 °C. To avoid the effects of process temperature and other thermal effects care shall be taken to ensure the surrounding ambient and the ambient inside the transmitter housing does not exceed 71°C

3.   Some models contains non-metallic enclosure parts, to prevent the risk of electrostatic sparking the non-metallic surface should only be cleaned with a damp cloth.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Revised drawings to accommodate UKEX markings.

Annex:

Annex to certificate IECEx FMG 14.0032X.pdf

Annex to IECEx Certificate IECEx FMG 14.0032X

Level Plus Digital Level Transmitters. (Tank Slayer, RefineME, SoClean, Chambered)

Entity Parameters:
Supply: U_i = 28 V, I_i = 100 mA, C_i = 0 µF, L_i = 0 mH, P_i = 700mW
Rx/Tx-: U_i = 8.6 V, I_i = 10 mA, C_i = 0 µF, L_i = 0 mH, P_i = 21.5mW
Rx/Tx+: U_i = 8.6 V, I_i = 10 mA, C_i = 0 µF, L_i = 0 mH, P_i = 21.5mW

LPabcdefghijklmnop.
a = Unit: T, R, C or S
b = Output: M, D or U
c = Housing Type: A, B, C, D, E, L or Y
d = Electronics mounting: 1, 2, 3, 4, 5, 6, 7 or 8
e = Sensor Pipe: B, C, D, E, F, M, N, P, S, R, Y or X
f = Material of Construction: 1, 2, 3, A or 9
g = Process Connection Type: 1, 2, 4, 5, 6, 7, 8, A, B, C, D or X
h = Process Connection Size: A, B, C, D, E, F, G, H, J or X
i = Number of DT's: 0, 1, 5, K, M, P or X
j = DT Placement: F, C, B, E, K or X
k = Notified Body: I
l = Protection Method: I
m = Gas Group: 3
n = Units of Measure: F, M or U
o = Length: (numeric)
p = Special: S, E, R or F

Level Plus Analog Level Transmitters. (Tank Slayer, RefineME, SoClean, Chambered)

Entity Parameters:
Loop 1: U_i = 28Vdc, I_i = 120mA, P_i = 840mW, L_i = 5µH, C_i = 0µF
Loop 2: U_i = 28Vdc, I_i = 120mA, P_i = 840mW, L_i = 5µH, C_i = 0µF

LPabcdefghijklmnop.
a = Unit: T, R, C or S
b = Output: 1, 2, 3, 4, 5, 6 or 7
c = Housing Type: A, B, C, D, E, L or Y
d = Electronics mounting: 1, 2, 3, 4, 5, 6, 7 or 8
e = Sensor Pipe: B, C, D, E, F, M, N, P, S, R, Y or X
f = Material of Construction: 1, 2, 3, A or 9
g = Process Connection Type: 1, 2, 4, 5, 6, 7, 8, A, B, C, D or X
h = Process Connection Size: A, B, C, D, E, F, G, H, J or X
i = Number of DT's: 0, 1, 5, K, M, P or X
j = DT Placement: F, C, B, E, K or X
k = Notified Body: I
l = Protection Method: I
m = Gas Group: 3
n = Units of Measure: F, M or U
o = Length: (numeric)
p = Special: S, E, R or F

Level Plus Digital Level Transmitters. (LevelLimit)

Entity Parameters:
Supply: U_i = 28 V, I_i = 100 mA, C_i = 0 µF, L_i = 0 mH, P_i = 700mW
Rx/Tx-: U_i = 8.6 V, I_i = 10 mA, C_i = 0 µF, L_i = 0 mH, P_i = 21.5mW
Rx/Tx+: U_i = 8.6 V, I_i = 10 mA, C_i = 0 µF, L_i = 0 mH, P_i = 21.5mW
Switch: U_i = 28Vdc, I_i = 5mA, C_i = 0µF, L_i = 7.59mH, P_i = 140mW

LPLbcdefghijklmn
b = Output; M
c = Sensor Pipe; B, M, N, P or S
d = Process Connection Type; 1, 6, 7, 8, A, B, C, D, Z or X
e = Process Connection Size; A, B, D, E, F, G, H, J or X
f = Number of Digital Thermometers; 0, 1, 5, K, M, P or X
g = DT Placement; C, F or X
h = Notified Body; I
i = Protection Method; I
j = Gas Group; 3
k = Unit of Measure; F, M or U
l = Length; any 5 numerical digits
m = Special; S, E, R or F
n = HI Switch Position; any 5 numerical digits

Level Plus Analog Level Transmitters. (LevelLimit)

Entity Parameters:
Loop 1: U_i = 28Vdc, I_i = 120mA, P_i = 840mW, L_i = 5µH, C_i = 0µF
Loop 2: U_i = 28Vdc, I_i = 120mA, P_i = 840mW, L_i = 5µH, C_i = 0µF
Switch: U_i = 28Vdc, I_i = 5mA, P_i = 140mW, L_i = 7.59mH, C_i = 0µF

LPLbcdefghijklmn
b = Output; 1, 2, 5 or 7
c = Sensor Pipe; B, M, N, P or S
d = Process Connection Type; 1, 6, 7, 8, A, B, C, D, Z or X
e = Process Connection Size; A, B, D, E, F, G, H, J or X
f = Number of Digital Thermometers; 0, 1, 5, K, M, P or X
g = DT Placement; C, F or X
h = Notified Body; I
i = Protection Method; I
j = Gas Group; 3
k = Unit of Measure; F, M or U
l = Length; any 5 numerical digits
m = Special; S, E, R or F
n = HI Switch Position; any 5 numerical digits