



# 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](http://www.iecex.com)

Certificate No.: **IECEX FTZU 15.0027X** Page 1 of 4 Certificate history:  
Status: **Current** Issue No: 3 Issue 2 (2019-10-18)  
Date of Issue: 2022-08-04 Issue 1 (2017-01-30)  
Issue 0 (2015-09-08)  
Applicant: **DELTA MOBREY LTD**  
Riverside Business Park, Dogflud Way, Farnham, Surrey  
GU9 7SS – UK  
**United Kingdom**  
Equipment: **Smart Pressure Transmitter type D21, Smart Differential Pressure Transmitters type D31, D35, D34, D47, D48,  
Smart Level Probe type D45, Smart Level Transmitter type D46**  
Optional accessory:  
Type of Protection: **Intrinsic safety "i"**  
Marking: Ex ia I Ma (version with enclosure ss316)  
Ex ia IIB T4/T5 Ga/Gb (version with teflon-shielded cable)  
(version with PTFE covered separator)  
Ex ia IIC T4/T5 Ga/Gb  
Ex ia IIIC T115°C Da

Approved for issue on behalf of the IECEx  
Certification Body:

**Dipl. Ing. Martin Gregor**

Position:

**Vice Head of Certification Body**

Signature:  
(for printed version)

Date:  
(for printed version)

1. This certificate and schedule may only be reproduced in full.
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Certificate issued by:

**Fyzikálne technický zkušební ústav  
(Physical -Technical Testing Institute)  
Pikartská 7, 71607 Ostrava - Radvanice  
Czech Republic**





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Manufacturer: **DELTA MOBREY LTD**  
Riverside Business Park, Dogflud Way, Farnham, Surrey  
GU9 7SS – UK  
**United Kingdom**

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:

[CZ/FTZU/ExTR15.0027/00](#)  
[CZ/FTZU/ExTR15.0027/03](#)

[CZ/FTZU/ExTR15.0027/01](#)

[CZ/FTZU/ExTR15.0027/02](#)

Quality Assessment Report:

[GB/BAS/QAR06.0033/10](#)



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## EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Smart Pressure Transmitter type D21, Smart Differential Pressure Transmitters type D31, D34, D35, D47, D48, Smart Level Probe type D45, Smart Level Transmitter type D46 are designed to convert process pressure measurements into a 4 to 20 mA current signal. The apparatus comprises a sensor, several printed circuit boards and liquid crystal display all housed in a light alloy enclosure or stainless steel enclosure. One of the housing cover contains a window. External connections are made via an integral terminal block. The Transmitters in housing with light alloy and stainless steel can be used in gas, and combustible dust atmospheres in Group II and III, but only with stainless steel housing in Group I applications.

Intrinsically safe input power supply parameters:

Linear power supply output characteristic:

$U_i = 30 \text{ V}$ ;  $I_i = 0.1 \text{ A}$ ;  $P_i = 0.75 \text{ W}$ ; temperature class T5

Trapezoidal power supply output characteristic:

$U_i = 24 \text{ V}$ ;  $I_i = 50 \text{ mA}$ ;  $P_i = 0.7 \text{ W}$ ; temperature class T5

Rectangular power supply output characteristic:

$U_i = 24 \text{ V}$ ;  $I_i = 25 \text{ mA}$ ;  $P_i = 0.6 \text{ W}$ ; temperature class T5

$U_i = 24 \text{ V}$ ;  $I_i = 50 \text{ mA}$ ;  $P_i = 1.2 \text{ W}$ ; temperature class T4

Intrinsically safe parameters

$C_i = 2.5 \text{ nF}$ ;  $L_i = 18 \text{ }\mu\text{H}$ ,

Range of permissible ambient temperature:  $T_a = -50 \text{ }^\circ\text{C}$  to  $+80 \text{ }^\circ\text{C}$  (for Group II)

Range of permissible ambient temperature:  $T_a = -40 \text{ }^\circ\text{C}$  to  $+80 \text{ }^\circ\text{C}$  (for Group I and Group III)

## SPECIFIC CONDITIONS OF USE: YES as shown below:

1. Versions of transmitter with surge arrester marked on plate "SA", do not meet the requirements of Section 10.3 of the standard EN 60079-11:2012 (500Vrms). This must be taken into account when installing the equipment.
2. Under certain extreme circumstances in dust explosive atmospheres, the device with painting of enclosure and with plastic tables and with elements of diaphragm seals covered by PTFE may store an ignition-capable level of electrostatic charge. The device shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge.
3. If the diaphragm seal contains titan parts, it must be protected against mechanical drops.
4. Galvanically separated part of apparatus placed into measuring head is electrically connected with mass of enclosure. It should be taken into account when installing the apparatus with remote measuring head on cable.



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## **DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)**

Mechanical modification of enclosure.

The surface temperature in dust explosive atmosphere is changed to T115 °C

Formerly marking Ex ia IIIC T105 °C Da is changed to Ex ia IIIC T115 °C Da

Changed or upgraded some PCBs and components.

Change of "mass" mounting technology from screwed to solder.

Minor mechanical changes in construction of pressure heads.

There are minor change in used electrical components and mechanical parts.

Added the possibility of 0,35 mm PTFE foil on separating membrane, only for Group IIB.

Introduction of the cable in a Teflon tube braided with steel sheathing.

Introduced 5x7 steel sheathed cable

Updating and correction of documentation.