



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 INE 06.0002	Page 1 of 6	<u>Certificate history:</u>
Status:	Current	Issue No: 5	Issue 4 (2019-03-29)
Date of Issue:	2021-06-08		Issue 3 (2014-07-25)
Applicant:	TELEDYNE OLDHAM SIMTRONICS SAS Rue Orfila, ZI EST ARRAS Cedex F-62027 France		Issue 2 (2013-02-21)
Equipment:	Gaz Detector types BM25, BM25A, BM25W and BM25AW		Issue 1 (2010-06-30)
Optional accessory:			Issue 0 (2006-10-25)
Type of Protection:	"d" and "i"		
Marking:	Ex ia IIC T4 Ga or Ex ia IIB T4 Ga or Ex ia IIC T4 Gb Ex ia I Ma or Ex ia I Mb Ex db ia IIC T4 Gb Ex db ia I Mb		

Approved for issue on behalf of the IECEx
Certification Body:

Thierry HOUEIX

Position:

Ex Certification Officer

Signature:
(for printed version)

Date:

2021-06-08

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:

INERIS
Institut National de l'Environnement Industriel et des Risques
BP n2 / Parc Technologique ALATA
F-60550 Verneuil-en-Halatte
France



controlling risks
for sustainable development



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Manufacturer: **TELEDYNE OLDHAM SIMTRONICS SAS**
Rue Orfila, ZI EST
ARRAS Cedex F-62027
France

Additional
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 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
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:

[FR/INE/ExTR06.0002/01](#)
[FR/INE/ExTR06.0002/04](#)

[FR/INE/ExTR06.0002/02](#)
[FR/INE/ExTR06.0002/05](#)

[FR/INE/ExTR06.0002/03](#)

Quality Assessment Report:

[FR/INE/QAR06.0006/11](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Gaz Detector is portable and self-contained apparatus which can get the simultaneous detection of several gases in explosible atmosphere in I and IIC groups with an ambient temperature range from -20°C to $+55^{\circ}\text{C}$.

This Gaz Detector may be fitted with detection cells which are protected by flameproof enclosure.

According to this equipment, four types of Gaz Detector are defined in the descriptive documents:

- Type BM25,
- Type BM25A,
- Type BM25W,
- Type BM25AW.

SPECIFIC CONDITIONS OF USE: NO



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue 1

- Possibility of using the module sensor type PID-TECH Sensor plus (ZPP6018**)
- Possibility of using the infrared sensor module type S4 IR.
- Possibility of using the piezoelectric pushbutton type BPS16NS.
- Addition of two protection feet on the base.
- Possibility of using the sensor's model type 4B-LEL.
- Change in Group I of the mode of protection for the BM25A
- Change of name for the manufacturer and the applicant: OLDHAM S.A. becomes INDUSTRIAL SCIENTIFIC OLDHAM S.A.S:
- Change of marking:

INDUSTRIAL SCIENTIFIC OLDHAM S.A.S or logo OLDHAM
62 ARRAS CEDEX

WARNING - DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT.
WARNING - POTENTIAL ELECTROSTATIC CHARGING HAZARD - SEE INSTRUCTIONS
(Serial number)

Tamb. : -20°C to +55°C ; IP66.

For the type BM25: Ex ia IIC T4 and / or Ex ia I

For the le type BM25A: Ex ia d IIC T4 and / or Ex ia I

For the types BM25 and BM25A with using IR flameproof cell or IR sensor module type S4 IR:

Ex ia d IIC T4 and / or Ex d ia I

Issue 2

- The following IEC standards are updated:
 - IEC 60079-0 : 2004 updated to 2007
 - IEC 60079-1 : 2003 updated to 2007
 - IEC 60079-26 : 2004 updated to 2006
- Possibility of using the infrared sensor module type S4-IR-MSH- with MSHia-P sensor from Dynament.

Issue 3

- The following IEC standards are updated:
 - IEC 60079-0 : 2007 updated to 2011
 - IEC 60079-11 : 2007 updated to 2011
- New types for the gas Detector, the types BM25A and BM25AW
- Change of name for the manufacturer and the applicant: INDUSTRIAL SCIENTIFIC OLDHAM S.A.S becomes OLDHAM S.A.S.
- Change of marking.

Issue 4

- Change of name for the manufacturer OLDHAM SAS becomes OLDHAM SIMTRONICS SAS
- The following IEC standards are updated:
 - IEC 60079-1 : 2007 updated to 2014
 - IEC 60079-26 : 2007 updated to 2014
- Removal of PANASONIC HHR 450A accumulators.
- Introduction of two new resins used for the battery pack and wireless module.
- Introduction of new infrared sensors module IR (IR sensor short pins).
- Introduction new infrared cell board (IR sensor short pins).



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Issue 5

- Introduction of a second source of wireless communication module for the wireless slot present on BM25W and BM25AW detectors. Wireless module can be now one of the following references:
 - RF200PD1
 - F220SU
- The following IEC standards are updated:
 - IEC 60079-0:2011 updated to IEC 60079-0:2017.
- Change of name for the manufacturer and the applicant: OLDHAM SIMTRONICS SAS becomes TELEDYNE OLDHAM SIMTRONICS SAS.



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Additional information:

PARAMETERS RELATING TO THE SAFETY

The power supply consists of an assembly in a pack of twelve elements formed by two packs of 6 elements in parallel, the accumulators used are as follows :

- 1.2V - 4500 mAh NiMH type GP450LAH
- 1.2V - 4500 mAh NiMH type SANYO HR-4/3 FAU.

Safeguard Lithium Cells :

- 3.6V - 1AH type SAFT LS14250.
- 3.6V - 1AH type SONNENSCHNEIN SL350.
- Input / output characteristics for BM25, BM25A, BM25W and BM25AW:
 - The detector can only be recharged in a non hazardous area. The maximum input characteristics on the charge connector are: $U_i = 30V$; $I_i = 30A$.
 - The detector can be supplied by two independent intrinsically safe power supply through the trickle charge connector. The maximum input characteristics on trickle charge connector for each IS power supply are: $U_i = 30V$; $I_i = 160 mA$.
 - The detector provide two solid state relays outputs through the relay connector. The Input characteristics for each static relay are: $U_i = 30V$; $I_i = 150 mA$.
 - The detector provide two digital inputs through the input connector. The output characteristics for each digital output are : $U_o = 5V$; $I_o = 50 mA$; $L_o = 8 mH$; $C_o = 7 \mu F$.

MARKING

Marking has to be readable and indelible; it has to include the following indications:

- TELEDYNE OLDHAM SIMTRONICS S.A.S
- BM25 or BM25A or BM25W or BM25AW
- IECEX INE 06.0002
- For BM25 without IR module: Ex ia IIC T4 Ga and / or Ex ia I Ma
- For BM25A without IR module: Ex db ia IIC T4 Gb and / or Ex ia I Ma
- For BM25 and BM25A using IR module: Ex db ia IIC T4 Gb and / or Ex db ia I Mb
- For BM25W without IR module: Ex ia IIB T4 Ga or Ex ia IIC T4 Gb and / or Ex ia Ma or Ex ia I Mb
- For BM25W using IR module: Ex db ia IIC T4 Gb and / or Ex db ia I Mb
- For BM25WA without IR module: Ex db ia IIC T4 Gb and / or Ex ia I Ma
- For BM25WA using IR module: Ex db ia IIC T4 Gb and / or Ex db ia I Mb
- IP66
- Tamb. : -20°C to +55°C
- Warning:
 - Do not open when an explosive atmosphere is present.
 - Potential electrostatic charging hazard - see instructions.