



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.:	IECEX INE 07.0004X	Issue No: 2	Certificate history:
Status:	Current	Page 1 of 4	Issue No. 2 (2016-08-22)
Date of Issue:	2016-08-22		Issue No. 1 (2012-05-29)
Applicant:	BIFFI ITALIA s.r.l. Loc. Caselle S.Pietro I-29017 FIORENZUOLA D'ARDA Italy		Issue No. 0 (2007-06-20)
Equipment:	Enclosure for integrated monitoring valve system Type IMVS2000 and IMVS2000V2		
Optional accessory:			
Type of Protection:	d ia tb		
Marking:	Ex d ia IIC T4 Gb Ex d ia IIB T4 Gb Ex tb IIIC T135°C Db IP66/68		

Approved for issue on behalf of the IECEx
Certification Body:

Olivier COTTIN

Position:

Head of Equipment and Corporate Services Unit

Signature:
(for printed version)

Date:

2016.08.22

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 the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

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

INERIS is accredited by COFRAC under number 5-0045 for certification of products and services (scope of accreditation is available on COFRAC website www.cofrac.fr)

The certification rules are available on the INERIS website www.ineris.fr.



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Manufacturer: **BIFFI ITALIA s.r.l.**
Loc. Caselle S.Pietro
I-29017 FIORENZUOLA D'ARDA
Italy

Additional Manufacturing location(s):

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 electrical apparatus 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 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2007-04 Edition:6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-11 : 2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

*This Certificate **does not** indicate compliance with electrical 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 Report:

[FR/INE/ExTR07.0005/00](#)

[FR/INE/ExTR07.0005/01](#)

[FR/INE/ExTR07.0005/02](#)

Quality Assessment Report:

[FR/INE/QAR08.0005/07](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The IMVS mark identifies an electronic-mechanical device to provide Operational (PST and FST) and Diagnostics functions through a suitable actuator mounted on valve.

The enclosure for IMVS is composed by three main pieces:

- a base cover with a glass window to display a mechanical local indication or with a "BEACON" indicator;
- a local interface cover with three push-buttons and a glass window to show the indication of an internal display;
- a sensor manifold to allocate the pneumatic/hydraulic sensors with relevant connections and cable entries for electrical wirings.

All the above components are made or in Aluminium alloy AC-46100 or in SS ASTM A351/A351M grade CF3M.

The enclosure gets the degree of protection IP66/68 according to the IEC 60529.

The verification of the protection degree IPX8 corresponds to an immersion under 10 meters of water during 48 hours.

CONDITIONS OF CERTIFICATION: YES as shown below:

The gap and diametrical clearance of the different flameproof joints are lower than the values specified in the tables of the IEC 60079-1 standard.

The width of the flameproof joint is greater than those specified in tables of IEC 60079-1 standard.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

For the issue n°1:

-Application of the standards:

- IEC 60079-0: 2011
- IEC 60079-1: 2007
- IEC 60079-11: 2006
- IEC 60079-31 2008

-Introduction of a new version of IMVS 2000 with "BEACON INDICATOR".

-Possibility to make the enclosure in stainless steel ASTM A351/A3521M grade CF3M.

-Introduction of a new type of diode stipulated on 6.3 of the DT1658 for the IS part.

For the issue n°2:

-Addition of a new version of the electric equipment, called IMVS2000V2

-Application of the standards IEC 60079-0:2011, IEC 60079-1:2007, IEC 60079-11:2011, IEC 60079-31:2013

-Update of the IS electronic boards

-Update of the equipment description

-Update of the technical documentation

-Addition of a new version of cable entries

Annex:

[IECEX INE 07.0004X Issue No. 2_annex.pdf](#)



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Annexe: IECEX INE 07.0004X_Annex.pdf

PARAMETERS RELATING TO THE SAFETY

IMVS2000

Rated voltage: 24 VDC $\pm 10\%$

Maximum absorbed power: 5 W

Output contact rating:

1,5A at 48VDC (SOV contacts)

0,5A at 60VDC/30VAC (digital output)

IMVS2000V2

Rated voltage: 24 to 48 VDC $\pm 20\%$

Maximum absorbed power: 5 W

Output contact rating:

1A at 57,6VDC (SOV contacts)

0,5A at 57,6VDC (digital output)

MARKING

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

- BIFFI ITALIA s.r.l
- I - 29017 Fiorenzuola d'Arda (PC)
- IMVS2000** or IMVS2000V2** (*)
- IECEX INE 07.0004X
- (Serial number)
- Ex d ia IIB or IIC T4 Gb
- Ex tb IIIC T135°C Db
- IP66/68
- T.Amb : -40°C to 75°C
- T. cable : 90°C
- CABLE ENTRY: SEE INSTRUCTIONS

WARNINGS:

- DO NOT OPEN WHEN ENERGIZED.
- DO NOT OPEN IF AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT

(*) Type is completed by numbers corresponding to alternatives of execution.



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ROUTINE EXAMINATIONS AND TESTS

Light alloy version:

In accordance with clause 16.2 of the IEC 60079-1 standard, the base of the enclosure defined above is exempted of routine test due to the fact that it has undergone a static type test at 4 times the reference pressure under 43 bar.

The covers of the enclosure remain subjected to the routine test under 16.1 bar.

Stainless steel version:

In accordance with clause 16.1 of the IEC 60079-1 standard each apparatus defined above has to have successfully passed, before delivery, an overpressure test of a period comprised between 10 and 60 seconds under 16.1 bar.