



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.: issue No.: Certificate history:

Status:

Date of Issue: Page 1 of 3

Applicant: **FEAM**
Via Mario Pagano, 3
I - 20090 Trezzano sul Naviglio (MI)
Italy

Electrical Apparatus: **Increased Safety Enclosures type GWR** or GWRCS****
Optional accessory:

Type of Protection: **e and tb for enclosure and e, d, ia, ib, mb for components**

Marking: **Ex d e ia/ib ia ib mb IIC T6 or T5 Gb**
Ex tb IIIC T85°C or T100°C Db IP65 or IP 66

Approved for issue on behalf of the IECEx
Certification Body:

Thierry HOUÉIX

Position:

Ex Certification Officer

Signature:
(for printed version)

Date:

2013-10-29



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 Verneuil-En-Halatte
France



IECEx Certificate of Conformity

Certificate No.: IECEx INE 13.0058
Date of Issue: 2013-10-29 Issue No.: 0
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Manufacturer: **FEAM**
Via Mario Pagano, 3
I - 20090 Trezzano sul Naviglio (MI)
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 60079-18 : 2009 Edition: 3	Explosive atmospheres Part 18: Equipment protection by encapsulation "m"
IEC 60079-31 : 2008 Edition: 1	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'
IEC 60079-7 : 2006-07 Edition: 4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

*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/ExTR13.0058/00](#)

Quality Assessment Report:
[IT/CES/QAR09.0003/03](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

These enclosures of different sizes made in polyester reinforced with fiber glass are covered by IECEx INE 13.0021U certificate. They are protected by increased safety "e" for gas atmosphere and protected by enclosure "tb" for dust atmosphere. These enclosures are intended to receive terminals only or terminals and some electrical components covered by an IECEx certificate.

Enclosures, protected by enclosure "tb" are intended to receive the same equipments listed above and/or electrical components not covered by an IECEx certificate and listed in the documentation.

The list of the component is defined on the technical documentation.

These enclosures get the degrees of protection IP65 or IP66 (depending of components installed on the enclosure) according to the IEC 600529 standard.

CONDITIONS OF CERTIFICATION: NO



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Date of Issue: 2013-10-23

Issue No.: 0

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Annexe: IECEx INE 13.0058_Annex.pdf

PARAMETERS RELATING TO THE SAFETY

These enclosures are intended to be used in the following ranges of ambient temperature, in accordance with the temperature class T6/T85°C or T5/T100°C, the thermal stability of the terminals and the range of ambient temperature of the component installed in the enclosure:

- minimum ambient temperature from -20°C to -40°C
- maximum ambient temperature from +40°C to +55°C

Enclosures "Ex tb" with internal component and/or terminals:

Maximum power dissipated : see table below

Type of enclosure	Temperature class : T85 °C		Temperature class : T100 °C	
	Tamb :+40°C	Tamb :+55°C	Tamb :+40°C	Tamb :+55°C
GWR...09	11 W	7 W	16 W	11 W
GWR...11	16 W	10 W	23 W	16 W
GWR...14	22 W	14 W	32 W	22 W
GWR...21	24 W	15 W	34 W	24 W
GWR...22	38 W	24 W	54 W	38 W
GWR...42	46 W	28 W	63 W	46 W
GWR...44	91 W	56 W	125 W	91 W
GWR...84	166 W	101 W	229 W	166 W
Cable temperature	80 °C		90 °C	

The maximum supply voltage, number of the terminals and the permissible rated current depend of the size of the enclosure, the range of ambient temperature and the temperature class. These parameters are described on the descriptive documents.



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Enclosures "Ex e" with internal component and/or terminals:

Maximum power dissipated : see table below

Type of enclosure	Temperature class : T6		Temperature class : T5	
	Tamb :+40°C	Tamb :+55°C	Tamb :+40°C	Tamb :+55°C
GWR...09	5 W	3 W	7 W	5 W
GWR...11	8 W	5 W	11 W	8 W
GWR...14	11 W	6 W	15 W	11 W
GWR...21	11 W	7 W	16 W	11 W
GWR...22	18 W	11 W	25 W	18 W
GWR...42	23 W	14 W	32 W	23 W
GWR...44	46 W	28 W	64 W	46 W
GWR...84	61 W	38 W	84 W	61 W
Cable temperature	NA			

The maximum supply voltage, number of the terminals and the permissible rated current depend of the size of the enclosure, the range of ambient temperature and the temperature class. These parameters are described on the descriptive documents.

MARKING

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

A- Enclosure "Ex tb" for dust protection :

- FEAM
- I - 20090 Trezzano sul Naviglio (MI)
- GWR**or GWRCS** (1)
- IECEx INE 13.0058
- (Serial number)
- Ex tb IIIC T85°C or T100°C Db IP65 or IP66
- ...°C ≤ Tamb ≤ ...°C (2)
- (Rated voltage and rated current and/or rated power)
- Warning: DO NOT OPEN WHEN ENERGIZED

(1) Type is completed by numbers corresponding to the size of the enclosure.

(2) Indication of the range of ambient temperature if different from -20°C to +40°C



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B- Enclosure "Ex e" and "Ex tb" fitted with terminals and components:

- FEAM
- I - 20090 Trezzano sul Naviglio (MI)
- GWR** or GWRCs** (1)
- IECEx INE 13.0058
- (Serial number)
- Ex (2) e IIC T6 or T5 Gb
- Ex tb IIIC T85°C or T100°C Db IP65 or IP66
- ...°C ≤ Tamb ≤ ...°C (3)
- T. cable = (4)
- (Rated voltage and rated current and/or rated power)
- Warning: DO NOT OPEN WHEN ENERGIZED

(1) Type is completed by numbers corresponding to the size of the enclosure.

(2) The marking code Ex is completed by the indication of the type of protection of the component installed in the enclosure in the alphabetical order.

(3) Indication of the range of ambient temperature if different from -20°C to +40°C

(4) Indication when the temperature is higher than 70°C (See table above)

ROUTINE EXAMINATIONS AND TESTS

In accordance with clause 7.1 of the IEC 60079-7 standard, a dielectric strength test on each of the different circuits of the connection units, performed according to the relevant standards, the supply voltage shall be applied during one minute.



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

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Certificate No.: IECEx INE 13.0058X Issue No: 1 Certificate history:
Status: Current Page 1 of 4 [Issue No. 1 \(2016-07-29\)](#)
Date of Issue: 2016-07-29 [Issue No. 0 \(2013-10-29\)](#)
Applicant: FEAM
Via Mario Pagano, 3
I - 20090 Trezzano sul Naviglio (MI)
Italy
Equipment: Increased safety enclosures type GWR** or GWRCS** or GWRPS**
Optional accessory:
Type of Protection: e and tb for enclosure and e, d, ia, ib, mb for components
Marking: Ex d e ia/ib ia ib mb IIC T6 or T5 or T4 Gb
Ex tb IIIC T85°C or T100°C or T135°C Db IP65 or IP 66

Approved for issue on behalf of the IECEx
Certification Body:

Dominique CHARPENTIER

Position:

Certification division manager

Signature:
(for printed version)



Date:

2016-07-29

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Certificate issued by:

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Institut National de l'Environnement Industriel
et des Risques
BP n2
Parc Technologique ALATA
F-60550 Verneuil-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.



IECEX Certificate of Conformity

Certificate No: IECEX INE 13.0058X

Issue No: 1

Date of Issue: 2016-07-29

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Manufacturer: **FEAM**
Via Mario Pagano, 3
I - 20090 Trezzano sul Naviglio (MI)
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 60079-18 : 2009 Edition:3	Explosive atmospheres Part 18: Equipment protection by encapsulation "m"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2006-07 Edition:4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

*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/ExTR13.0058/00](#)

[FR/INE/ExTR13.0058/01](#)

Quality Assessment Report:

[IT/CES/QAR09.0003/06](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

These enclosures GWR**, GWRCS** and GWRPS** made in polyester reinforced by fiber glass are protected by increased safety "e" for gas atmosphere and protected by enclosure "tb" for dust atmosphere. The empty enclosure is covered by the component certificate IECEx INE 13.0021U.

The enclosures type GWR**, for application in gas hazardous area, are intended to receive terminals only.

The enclosures type GWRCS**, for application in gas hazardous area, are intended to receive terminals and some electrical devices, covered by separated IECEx certificates (full conformity or component) using different types of protection as "Ex d e", "Ex ia", "Ex ib", "Ex d ia/ib", "Ex e mb", "Ex d e mb", "Ex d e mb ia". The conditions and restrictions of uses of these devices are specified in the technical documentation of the manufacturer. The terminals and devices covered by component certificates are listed in the Annex of this certificate.

The enclosures type GWR**, GWRCS**, for application in dust hazardous area, are intended to receive the same equipment specified above and/or electrical components not covered by an IECEx certificate and listed in the documentation.

The enclosures type GWRPS**, for application in gas and dust hazardous area, are intended to receive terminals and to be fitted with the plugs and sockets covered by the IECEx certificate IECEx LCI 09.0006 (type DXN3), IECEx LCI 09.0005X (type DXN1) and IECEx LCI 09.0007 (type DXN6). The conditions and restrictions of uses of these devices are specified in the technical documentation of the manufacturer.

These enclosures get the degrees of protection IP65 or IP66 according to the IEC 60529 standard and in accordance with degrees of protection of the component installed on the enclosure

CONDITIONS OF CERTIFICATION: YES as shown below:

- The enclosures could be used in different ambient temperatures ranges comprised from -50°C up to +60°C following the components fitted on the enclosures and in accordance with the descriptive documents.
- During the installation, the user will take into consideration that the enclosures type GWRPS** underwent only a shock corresponding to an energy of a low risk.
- During the installation, the user will take into consideration that the enclosures type GWR** - GWRCS** - GWRPS** underwent only a shock corresponding to an energy of a low risk for ambient temperature down to -50°C (Normal mechanical risk until -40°C for all types excepted for GWRPS**)
- The special conditions for safe use are complemented by those described into the examination certificates of each device constitutive of the final equipment. The other conditions of use are stipulated in the instructions.



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

Purpose of the issue 1:

- Extension of the range of ambient temperature from "-40°C to +55°C" to "-50°C to +60°C"
- Introduction of a new type of enclosures : GWRPS** composed of enclosures fitted with Plugs and sockets
- Application of the IEC 60079-31:2013
- Update of the applicable standard versions in accordance with the devices that could be fitted on the enclosures.
- "X" added at the end of the certificate number for introduction of special conditions of use

Annex:

[IECEX INE 13.0058-01_Annex.pdf](#)



IECEX Certificate of Conformity

Certificate No.: IECEx INE 13.0058X

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PARAMETERS RELATING TO THE SAFETY

The enclosures GWR** or GWRCS** are intended to be used in the following ranges of ambient temperature, in accordance with the temperature class T6/T85°C or T5/T100°C, the thermal stability of the terminals and the range of ambient temperature of the component installed in the enclosure:

- minimum ambient temperature from -20°C to -50°C
- maximum ambient temperature from +40°C to +60°C

Enclosures GWR** or GWRCS** intended for dust hazardous area with internal component and/or terminals:

Maximum power dissipated : see table below

Type of enclosure	Ambient temperature :					
	Temperature class : T85 °C			Temperature class : T100 °C		
	+40 °C	+55 °C	+60 °C	+40 °C	+55 °C	+60 °C
GWR...09	11 W	7 W	6 W	16 W	11 W	10 W
GWR...11	16 W	10 W	8 W	23 W	16 W	15 W
GWR...14	22 W	14 W	11 W	32 W	22 W	20 W
GWR...21	24 W	15 W	12 W	34 W	24 W	22 W
GWR...22	38 W	24 W	19 W	54 W	38 W	34 W
GWR...42	46 W	28 W	23 W	63 W	46 W	39 W
GWR...44	91 W	56 W	45 W	125 W	91 W	78 W
GWR...84	166 W	101 W	83 W	229 W	166 W	146 W
Cable temperature	80 °C			90 °C		95 °C

The maximum supply voltage, number of the terminals and the permissible rated current depend of the size of the enclosure, the range of ambient temperature and the temperature class. These parameters are described on the descriptive documents.



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Enclosures GWR or GWRCS** intended for gas only or for gas and dust hazardous area with internal component and/or terminals:**

Maximum power dissipated : see table below

Type of enclosure	Ambient temperature :					
	Temperature class : T6/T85 °C			Temperature class : T5/T100 °C		
	+40 °C	+55 °C	+60 °C	+40 °C	+55 °C	+60 °C
GWR...09	5 W	3 W	3 W	7 W	5 W	5 W
GWR...11	8 W	5 W	4 W	11 W	8 W	7 W
GWR...14	11 W	6 W	5 W	15 W	11 W	9 W
GWR...21	11 W	7 W	6 W	16 W	11 W	10 W
GWR...22	18 W	11 W	9 W	25 W	18 W	16 W
GWR...42	23 W	14 W	12 W	32 W	23 W	20 W
GWR...44	46 W	28 W	23 W	64 W	46 W	40 W
GWR...84	61 W	38 W	30 W	84 W	61 W	53 W
Cable temperature	N/A					

The maximum supply voltage, number of the terminals and the permissible rated current depend of the size of the enclosure, the range of ambient temperature and the temperature class. These parameters are described on the descriptive documents.

List of components that could be mounted on the enclosure and statement of the assessments regarding the older editions of the standard:

Manufacturer	Type operating devices	Code	IECEX Certificate number	Statement of the older editions of the standard
BARTEC GmbH	Control and signaling device adapters	05-0003-00**/****	IECEX PTB 08.0037U	(1)
BARTEC GmbH	Circuit module and control circuit switch	07-3321-1... 07-3323-1... 07-3331-1...	IECEX PTB 07.0046U	(1)
BARTEC GmbH	Lamp and illuminated indicator module	07-335*-*..	IECEX PTB 00.0014U	(1)
BARTEC GmbH	illuminated push button	07-336*-*..	IECEX PTB 00.0014U	(1)



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Manufacturer	Type operating devices	Code	IECEX Certificate number	Statement of the older editions of the standard
CEAG GmbH	Moving-iron amperemeter Moving-coil amperemeter (only intrinsic safety protection)	AM 72	IECEX BKI 07.0016U	(1)
CEAG GmbH	Moving-iron voltmeter	VM 72	IECEX BKI 07.0016U	(1)
STAHL GmbH	Push button for panel	8003/1.2*** 8003/1.4***	IECEX PTB 06.0066U	(1)
STAHL GmbH	Control switch / switch-Disconnecter	8008/2-***	IECEX PTB 06.0010U	(1)
STAHL GmbH	Indicator light for panel	8010/***	IECEX PTB 06.0016U	(1)
STAHL GmbH	Indicator light for panel	8013/2-**-* 8013/4-**-*	IECEX PTB 07.0012U	(1)
STAHL GmbH	Contact element / isolating terminal	8082/1-**-**	IECEX PTB 06.0011U	(1)
STAHL GmbH	Command and signalling adapters	8602/**-*	IECEX PTB 06.0014U	(1)
STAHL GmbH	Control units with resistor	8453/**	IECEX PTB 06.0031U	(1)
Pepperl & Fuchs GmbH	Multifunctional terminal	MFT-***	IECEX BKI 08.0008U	(1)
STAHL GmbH	Potentiometer for panel	8455/4	IECEX PTB 07.0001U	(1)
STAHL GmbH	Control unit (potentiometer)	8208/**-**-**	IECEX PTB 06.0032U	(1)
STAHL GmbH	Amperemeter Voltmeter	8403/2-*** 8404/4-*** 8405/2-***	IECEX PTB 06.0017U	(1)
NUOVA ASP	Ammeter	AM**	IECEX LCIE 13.0008U	(1)
NUOVA ASP	Explosion-proof control switch	IRE-*	IECEX LCIE 13.0004U	(1)
NUOVA ASP	Flameproof button	PBE-*	IECEX LCIE 13.0006U	(1)
NUOVA ASP	Explosion proof indicator	LIE-*	IECEX LCIE 13.0017U	(1)
FEAM	Ammeter	AM**	IECEX LCIE 13.0009U	(1)



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Manufacturer	Type operating devices	Code	IECEX Certificate number	Statement of the older editions of the standard
FEAM	Explosion-proof control switch	IRE-*	IECEX LCIE 13.0005U	(1)
FEAM	Flameproof button	PBE-*	IECEX LCIE 13.0007U	(1)
FEAM	Explosion proof indicator	LIE-*	IECEX LCIE 13.0018U	(1)
Quintex GmbH	Explosion proof switch module	QX0201	IECEX EPS 11.0011U	(1)
Quintex GmbH	Explosion proof signal lamp module	QX0202	IECEX EPS 11.0012U	(1)
Quintex GmbH	Explosion proof potentiometer module	QX0203	IECEX EPS 11.0013U	(1)
Quintex GmbH	Explosion proof ammeter module	QX0205	IECEX EPS 11.0014U	(1)
Quintex GmbH	Explosion proof signal lamp with button module	QX0212	IECEX EPS 11.0015U	(1)
Peppers Cable Glands Ltd	Breathers drains	ACDP	IECEX SIR 09.0132U	(1)
NUOVA ASP	Beathing and draining valve	ECD***	IECEX EXA 14.0005U	(1)
FENEx	Beathing and draining valve	ECD***	IECEX EXA 14.0006U	(1)
FEAM	Beathing and draining valve	ECD***	IECEX EXA 14.0004U	(1)

(1) : No applicable Technical Differences

The enclosures GWRPS** are intended to be used in the range of ambient temperature from -40°C to +60°C. The electrical input parameters of the plugs and sockets fitted on the enclosure must be in accordance with those specified in their own certificates. The maximum number of Plugs and sockets that could be fitted on an enclosure, the maximum number of terminals allowed inside the enclosure are defined in the descriptive documents of the manufacturer.



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MARKING

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

A- Enclosure GWR or GWRCS** for dust hazardous area only:**

- FEAM
 - I - 20090 Trezzano sul Naviglio (MI)
 - GWR**or GWRCS** (1)
 - IECEx INE 13.0058X
 - (Serial number)
 - Ex tb IIIC T85°C or T100°C Db IP65 or IP66
 - ...°C ≤ Tamb ≤ ...°C (2)
 - T. cable = (3)
 - (Rated voltage and rated current and/or rated power)
 - Warning: DO NOT OPEN WHEN ENERGIZED
- (1) Type is completed by numbers corresponding to the size of the enclosure.
- (2) Indication of the range of ambient temperature if different from -20°C to +40°C
- (3) Indication when the temperature is higher than 70°C (See table above)

B- Enclosure GWR or GWRCS** for gas and/or dust hazardous area fitted with terminals and components:**

- FEAM
 - I - 20090 Trezzano sul Naviglio (MI)
 - GWR**or GWRCS** (1)
 - IECEx INE 13.0058X
 - (Serial number)
 - Ex (2) e IIC T6 or T5 Gb
 - Ex tb IIIC T85°C or T100°C Db IP65 or IP66
 - ...°C ≤ Tamb ≤ ...°C (3)
 - (Rated voltage and rated current and/or rated power)
 - Warning: DO NOT OPEN WHEN ENERGIZED
- (1) Type is completed by numbers corresponding to the size of the enclosure.
- (2) The marking code Ex is completed by the indication of the type of protection of the component installed in the enclosure in the alphabetical order.
- (3) Indication of the range of ambient temperature if different from -20°C to +40°C



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C- Enclosure GWRPS for gas and dust hazardous area :**

- FEAM
 - I - 20090 Trezzano sul Naviglio (MI)
 - GWRPS** (1)
 - IECEx INE 13.0058X
 - (Serial number)
 - Ex d e IIC T6 or T5 or T4 Gb
 - Ex tb IIIC T85°C or T100°C or T135°C Db IP65 or IP66
 - ...°C ≤ Tamb ≤ ...°C (2)
 - (Rated voltage and rated current and/or rated power)
 - Warning: DO NOT OPEN WHEN ENERGIZED
- (1) Type is completed by numbers corresponding to the size of the enclosure.
- (2) Indication of the range of ambient temperature if different from -20°C to +40°C

ROUTINE EXAMINATIONS AND TESTS

In accordance with clause 7.1 of the IEC 60079-7 standard, a dielectric strength test on each of the different circuits of the connection units, performed according to the relevant standards, the supply voltage shall applied during one minute.



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 13.0058X** Page 1 of 4 Certificate history:
Status: **Current** Issue No: 2 [Issue 1 \(2016-07-29\)](#)
[Issue 0 \(2013-10-29\)](#)
Date of Issue: 2021-12-23
Applicant: **BARTEC F.N. S.R.L.**
Via M. Pagano, 3
I - 20090 Trezzano sul Naviglio (MI)
Italy
Equipment: **Increased Safety Enclosures type GWR** or GWRCS** or GWRPS****
Optional accessory:
Type of Protection: **e and tb for enclosure and e, d, ia, ib, mb for components**
Marking: Ex d e ia/ib ia ib mb IIC T6 or T5 or T4 Gb
Ex tb IIIC T85°C or T100°C or T135°C Db IP65 or IP 66

Approved for issue on behalf of the IECEX
Certification Body:

Position:

Signature:
(for printed version)

Date:



Thierry HOUEIX

Ex Certification Officer

Signé électroniquement
Digitally signed by
Thierry HOUEIX
Ex Certification Officer
Délégué Certification

2021-12-23

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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



IECEX Certificate of Conformity

Certificate No.: **IECEX INE 13.0058X**

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Date of issue: 2021-12-23

Issue No: 2

Manufacturer: **BARTEC F.N. S.R.L.**
Via M. Pagano, 3
I - 20090 Trezzano sul Naviglio (MI)
Italy

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 60079-0:2011](#) Explosive atmospheres - Part 0: General requirements
Edition:6.0

[IEC 60079-1:2007-04](#) Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:6

[IEC 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

[IEC 60079-18:2009](#) Explosive atmospheres Part 18: Equipment protection by encapsulation "m"
Edition:3

[IEC 60079-31:2013](#) Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

[IEC 60079-7:2006-07](#) Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:4

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/ExTR13.0058/00](#)

[FR/INE/ExTR13.0058/01](#)

[FR/INE/ExTR13.0058/02](#)

Quality Assessment Report:

[IT/CES/QAR09.0003/14](#)



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Date of issue: 2021-12-23

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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

These enclosures GWR**, GWRCs** and GWRPS** made in polyester reinforced by fiber glass are protected by increased safety "e" for gas atmosphere and protected by enclosure "tb" for dust atmosphere. The empty enclosure is covered by the component certificate IECEX INE 13.0021U.

The enclosures type GWR**, for application in gas hazardous area, are intended to receive terminals only.

The enclosures type GWRCs**, for application in gas hazardous area, are intended to receive terminals and some electrical devices, covered by separated IECEX certificates (full conformity or component) using different types of protection as "Ex d e", "Ex ia", "Ex ib", "Ex d ia/ib", "Ex e mb", "Ex d e mb", "Ex d e mb ia". The conditions and restrictions of uses of these devices are specified in the technical documentation of the manufacturer. The terminals and devices covered by component certificates are listed in the Annex of this certificate.

The enclosures type GWR**, GWRCs**, for application in dust hazardous area, are intended to receive the same equipment specified above and/or electrical components not covered by an IECEX certificate and listed in the documentation.

The enclosures type GWRPS**, for application in gas and dust hazardous area, are intended to receive terminals and to be fitted with the plugs and sockets covered by the IECEX certificate IECEX LCI 09.0006 (type DXN3), IECEX LCI 09.0005X (type DXN1) and IECEX LCI 09.0007 (type DXN6). The conditions and restrictions of uses of these devices are specified in the technical documentation of the manufacturer.

These enclosures get the degrees of protection IP65 or IP66 according to the IEC 60529 standard and in accordance with degrees of protection of the component installed on the enclosure.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The enclosures could be used in different ambient temperatures ranges comprised from -50°C up to +60°C following the components fitted on the enclosures and in accordance with the descriptive documents.
- During the installation, the user will take into consideration that the enclosures type GWRPS** underwent only a shock corresponding to an energy of a low risk.
- During the installation, the user will take into consideration that the enclosures type GWR** - GWRCs** - GWRPS** underwent only a shock corresponding to an energy of a low risk for ambient temperature down to -50°C (Normal mechanical risk until -40°C for all types excepted for GWRPS**)
- The special conditions for safe use are complemented by those described into the examination certificates of each device constitutive of the final equipment. The other conditions of use are stipulated in the instructions.



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Certificate No.: **IECEX INE 13.0058X**

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Date of issue: 2021-12-23

Issue No: 2

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Purpose of the issue 2:

- Change of the name and address of the applicant and manufacturer
- Update of the marking plates

Purpose of the issue 1:

- Extension of the range of ambient temperature from “-40°C to +55°C” to “-50°C to +60°C”
- Introduction of a new type of enclosures : GWRPS** composed of enclosures fitted with Plugs and sockets
- Application of the IEC 60079-31:2013
- Update of the applicable standard versions in accordance with the devices that could be fitted on the enclosures.
- “X” added at the end of the certificate number for introduction of special conditions of use

Annex:

[IECEX INE 13.0058X-02_Annex.pdf](#)



IECEx Certificate of Conformity

Certificate No.: IECEx INE 13.0058X

Issue No.: 02

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Annex: IECEx INE 13.0058X-02_Annex.pdf

PARAMETERS RELATING TO THE SAFETY

The enclosures GWR** or GWRCS** are intended to be used in the following ranges of ambient temperature, in accordance with the temperature class T6/T85°C or T5/T100°C, the thermal stability of the terminals and the range of ambient temperature of the component installed in the enclosure:

- minimum ambient temperature from -20°C to -50°C
- maximum ambient temperature from +40°C to +60°C

Enclosures GWR** or GWRCS** intended for dust hazardous area with internal component and/or terminals:

Maximum power dissipated : see table below

Type of enclosure	Ambient temperature :					
	Temperature class : T85°C			Temperature class : T100°C		
	+40°C	+55°C	+60°C	+40°C	+55°C	+60°C
GWR...09	11 W	7 W	6 W	16 W	11 W	10 W
GWR...11	16 W	10 W	8 W	23 W	16 W	15 W
GWR...14	22 W	14 W	11 W	32 W	22 W	20 W
GWR...21	24 W	15 W	12 W	34 W	24 W	22 W
GWR...22	38 W	24 W	19 W	54 W	38 W	34 W
GWR...42	46 W	28 W	23 W	63 W	46 W	39 W
GWR...44	91 W	56 W	45 W	125 W	91 W	78 W
GWR...84	166 W	101 W	83 W	229 W	166 W	146 W
Cable temperature	80°C			90°C		95°C

The maximum supply voltage, number of the terminals and the permissible rated current depend of the size of the enclosure, the range of ambient temperature and the temperature class. These parameters are described on the descriptive documents.

Enclosures GWR** or GWRCS** intended for gas only or for gas and dust hazardous area with internal component and/or terminals:

Maximum power dissipated : see table below

Type of enclosure	Ambient temperature :					
	Temperature class : T6/T85°C			Temperature class : T5/T100°C		
	+40°C	+55°C	+60°C	+40°C	+55°C	+60°C
GWR...09	5 W	3 W	3 W	7 W	5 W	5 W
GWR...11	8 W	5 W	4 W	11 W	8 W	7 W
GWR...14	11 W	6 W	5 W	15 W	11 W	9 W
GWR...21	11 W	7 W	6 W	16 W	11 W	10 W
GWR...22	18 W	11 W	9 W	25 W	18 W	16 W
GWR...42	23 W	14 W	12 W	32 W	23 W	20 W
GWR...44	46 W	28 W	23 W	64 W	46 W	40 W
GWR...84	61 W	38 W	30 W	84 W	61 W	53 W
Cable temperature	N/A					

The maximum supply voltage, number of the terminals and the permissible rated current depend of the size of the enclosure, the range of ambient temperature and the temperature class. These parameters are described on the descriptive documents.



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Certificate No.: IECEx INE 13.0058X

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Annex: IECEx INE 13.0058X-02_Annex.pdf

Enclosure GWRPS for gas and dust hazardous area**

The enclosures GWRPS** are intended to be used in the range of ambient temperature from -40°C to +60°C. The electrical input parameters of the plugs and sockets fitted on the enclosure must be in accordance with those specified in their own certificates. The maximum number of Plugs and sockets that could be fitted on an enclosure, the maximum number of terminals allowed inside the enclosure are defined in the descriptive documents of the manufacturer.

MARKING

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

A- Enclosure GWR or GWRCs** for dust hazardous area only:**

- BARTEC FN (1)
- I – 20090 Trezzano sul Naviglio (MI)
- GWR** or GWRCs** (2)
- IECEx INE 13.0058X
- (Serial number)
- Ex tb IIIC T85°C or T100°C Db IP65 or IP66
- ...°C ≤ Tamb ≤ ...°C (3)
- T. cable = (4)
- (Rated voltage and rated current and/or rated power)
- Warning: DO NOT OPEN WHEN ENERGIZED

- (1) Optional Brands "BARTEC FEAM" or "BARTEC NASP" can be added in the marking with the sentence "manufactured by BARTEC FN".
- (2) Type is completed by numbers corresponding to the size of the enclosure.
- (3) Indication of the range of ambient temperature if different from -20°C to +40°C
- (4) Indication when the temperature is higher than 70°C (See table above)

B- Enclosure GWR or GWRCs** for gas and/or dust hazardous area fitted with terminals and components:**

- BARTEC FN (1)
- I – 20090 Trezzano sul Naviglio (MI)
- GWR** or GWRCs** (2)
- IECEx INE 13.0058X
- (Serial number)
- Ex (3) e IIC T6 or T5 Gb
- Ex tb IIIC T85°C or T100°C Db IP65 or IP66
- ...°C ≤ Tamb ≤ ...°C (4)
- (Rated voltage and rated current and/or rated power)
- Warning: DO NOT OPEN WHEN ENERGIZED

- (1) Optional Brands "BARTEC FEAM" or "BARTEC NASP" can be added in the marking with the sentence "manufactured by BARTEC FN".
- (2) Type is completed by numbers corresponding to the size of the enclosure.
- (3) The marking code Ex is completed by the indication of the type of protection of the component installed in the enclosure in the alphabetical order.
- (4) Indication of the range of ambient temperature if different from -20°C to +40°C



IECEX Certificate of Conformity

Certificate No.: IECEx INE 13.0058X

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C- Enclosure GWRPS** for gas and dust hazardous area :

- BARTEC FN (1)
- I – 20090 Trezzano sul Naviglio (MI)
- GWRPS** (2)
- IECEx INE 13.0058X
- (Serial number)
- Ex d e IIC T6 or T5 or T4 Gb
- Ex tb IIIC T85°C or T100°C or T135°C Db IP65 or IP66
- ...°C ≤ Tamb ≤ ...°C (3)
- (Rated voltage and rated current and/or rated power)
- Warning: DO NOT OPEN WHEN ENERGIZED

(1) Optional Brands “BARTEC FEAM” or “BARTEC NASP” can be added in the marking with the sentence “manufactured by BARTEC FN”.

(2) Type is completed by numbers corresponding to the size of the enclosure.

(3) Indication of the range of ambient temperature if different from -20°C to +40°C

ROUTINE EXAMINATIONS AND TESTS

In accordance with clause 7.1 of the IEC 60079-7 standard, a dielectric strength test on each of the different circuits of the connection units, performed according to the relevant standards, the supply voltage shall applied during one minute.

LIST OF THE COMPONENT INTENDED TO BE INSTALLED ON THE MOTOR AND/OR TERMINAL BOXES

Manufacturer	Type operating devices	Code	IECEX Certificate number	Statement of the older editions of the standard
BARTEC GmbH	Control and signaling device adapters	05-0003-00**/****	IECEX PTB 08.0037U	(1)
BARTEC GmbH	Circuit module and control circuit switch	07-3321-1... 07-3323-1... 07-3331-1...	IECEX PTB 07.0046U	(1)
BARTEC GmbH	Lamp and illuminated indicator module	07-335*-*..	IECEX PTB 00.0014U	(1)
BARTEC GmbH	illuminated push button	07-336*-*..	IECEX PTB 00.0014U	(1)
CEAG GmbH	Moving-iron amperemeter Moving-coil amperemeter (only intrinsic safety protection)	AM 72	IECEX BKI 07.0016U	(1)
CEAG GmbH	Moving-iron voltmeter	VM 72	IECEX BKI 07.0016U	(1)
STAHL GmbH	Push button for panel	8003/1.2*** 8003/1.4***	IECEX PTB 06.0066U	(1)
STAHL GmbH	Control switch / switch-Disconnecter	8008/2-***	IECEX PTB 06.0010U	(1)
STAHL GmbH	Indicator light for panel	8010/***	IECEX PTB 06.0016U	(1)
STAHL GmbH	Indicator light for panel	8013/2-*** 8013/4-***	IECEX PTB 07.0012U	(1)
STAHL GmbH	Contact element / isolating terminal	8082/1-**-**	IECEX PTB 06.0011U	(1)
STAHL GmbH	Command and signalling adapters	8602/-*	IECEX PTB 06.0014U	(1)
STAHL GmbH	Control units with resistor	8453/*	IECEX PTB 06.0031U	(1)
Pepperl & Fuchs GmbH	Multifunctional terminal	MFT-***	IECEX BKI 08.0008U	(1)
STAHL GmbH	Potentiometer for panel	8455/4	IECEX PTB 07.0001U	(1)



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Manufacturer	Type operating devices	Code	IECEX Certificate number	Statement of the older editions of the standard
STAHL GmbH	Control unit (potentiometer)	8208/**-**	IECEX PTB 06.0032U	(1)
STAHL GmbH	Amperemeter Voltmeter	8403/2-*** 8404/4-*** 8405/2-***	IECEX PTB 06.0017U	(1)
NUOVA ASP	Ammeter	AM**	IECEX LCIE 13.0008U	(1)
NUOVA ASP	Explosion-proof control switch	IRE-*	IECEX LCIE 13.0004U	(1)
NUOVA ASP	Flameproof button	PBE-*	IECEX LCIE 13.0006U	(1)
NUOVA ASP	Explosion proof indicator	LIE-*	IECEX LCIE 13.0017U	(1)
FEAM	Ammeter	AM**	IECEX LCIE 13.0009U	(1)
FEAM	Explosion-proof control switch	IRE-*	IECEX LCIE 13.0005U	(1)
FEAM	Flameproof button	PBE-*	IECEX LCIE 13.0007U	(1)
FEAM	Explosion proof indicator	LIE-*	IECEX LCIE 13.0018U	(1)
Quintex GmbH	Explosion proof switch module	QX0201	IECEX EPS 11.0011U	(1)
Quintex GmbH	Explosion proof signal lamp module	QX0202	IECEX EPS 11.0012U	(1)
Quintex GmbH	Explosion proof potentiometer module	QX0203	IECEX EPS 11.0013U	(1)
Quintex GmbH	Explosion proof ammeter module	QX0205	IECEX EPS 11.0014U	(1)
Quintex GmbH	Explosion proof signal lamp with button module	QX0212	IECEX EPS 11.0015U	(1)
Peppers Cable Glands Ltd	Breathers drains	ACDP	IECEX SIR 09.0132U	(1)
NUOVA ASP	Beathing and draining valve	ECD***	IECEX EXA 14.0005U	(1)
FENEx	Beathing and draining valve	ECD***	IECEX EXA 14.0006U	(1)
FEAM	Beathing and draining valve	ECD***	IECEX EXA 14.0004U	(1)

(1) : No applicable Technical Differences