

CESI

CESI
Centro Elettrotecnico
Sperimentale Italiano
Giacinto Motta SpA

Via R. Rubattino 54
20134 Milano - Italia
Telefono +39 022125.1
Fax +39 0221255440
www.cesi.it

Capitale sociale 8 550 000 €
interamente versato
Codice fiscale e numero
iscrizione CCIAA 00793580150

Registro Imprese di Milano
Sezione Ordinaria
N. R.E.A. 429222
P.I. IT00793580150

Schema di certificazione

ATEX CESI

Il CESI è stato autorizzato
dal governo italiano ad
operare quale organismo di
certificazione di apparecchi
e sistemi destinati a essere
utilizzati in atmosfera
potenzialmente esplosiva
con D.M. 1/3/1983, D.M.
19/6/1990, D.M. 20/7/1998
e D.M. 27/9/2000

ATEX E C-02

CERTIFICATE

1 0 3 4



EC-TYPE EXAMINATION CERTIFICATE

[1]

[2]

Equipment or Protective System intended for use
in potentially explosive atmospheres
Directive 94/9/EC

[3]

EC-Type Examination Certificate number:

CESI 02 ATEX 073

[4]

Equipment: Command and control units and interface units series CCF and EJB .

[5]

Manufacturer: **COR.TEM S.p.A.**

[6]

Address: Via Aquileia 10, Villesse (Gorizia - Italy)

[7]

This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8]

CESI, notified body n. 0722 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report n. EX-A2/025632.

[9]

Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50014: 1997 + A1..A2 EN 50018: 2000 EN 50020:2002 EN 50281-1-1:1999

[10]

If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

[11]

This EC-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

[12]

The marking of the equipment or protective system shall include the following:



II 2(1) G EEx d [ia] IIB T6 o T5



II 2(1) GD EEx d [ia] IIB T6 o T5 IP 65 o IP 66/67 T85°C o T100°C

This certificate may only be reproduced in its entirety and without any change, schedule included.

Date August 6th, 2002

translation issued on August 6th, 2002

Prepared
Mirko Balaz

Approved
Ulisse Colombo

CESI

CENTRO ELETTROTECNICO SPERIMENTALE ITALIANO

Business Unit Certificazione

Il Responsabile

[13]

Schedule

[14] EC-TYPE EXAMINATION CERTIFICATE n. CESI 02 ATEX 073

[15] Description of equipment

Command and control units and interface units series CCF and EJB.

In the interface units only associated apparatus are installed for the connection to intrinsic safety circuits.

In the command and control units both electrical and electronic components with command and control functions and associated apparatus for interface with intrinsic safety circuits are installed.

The associated apparatus are subject of separate certification with type of protection [Ex ia] IIB or IIC.

As regards the protection against combustible gases the type of protection is:

- EEx d [ia] IIB T6 for the interface units
- EEx d [ia] IIB T6 or T5 for the command and control units

As regards the protection against combustible dusts, the CCF and EJB enclosures are made in two versions with different degree of protection IP:

- enclosures with silicone grease placed between body and cover: IP 65
- enclosures with sealing gasket placed between body and cover: IP 66/67

The enclosures of these units are made in aluminium or stainless steel.

The characteristics of the electrical and electronic components which can be installed inside the enclosures are reported in the technical note A4-4249 annexed to this certificate.

The empty enclosures series CCF and EJB are subject of the component certificate CESI 00 ATEX 036 U. All the constructional details of the enclosures are reported in the documents annexed to the above mentioned component certificate.

Command and signalling operators type M-0..., subject of the component certificate CESI 01 ATEX 025U, can be mounted on the units subject of this certificate. In this case the degree of protection of the enclosures is IP 66.

Electrical characteristics

Rated voltage	24 ÷ 1000 V a.c.	12 ÷ 250 V d.c.
Rated frequency	50 ÷ 60 Hz	----
Max. current in fuses and contacts	400 A	400 A

Ambient temperature	- 20 ÷ + 40 °C
	- 20 ÷ + 55 °C

Temperature class of the units of category II 2(1) G and II 2(1) GD:	T6 or T5
Maximum surface temperature of the units of category II 2(1) GD:	T85°C or T100°C

Maximum dissipated power: the maximum power which can be dissipated inside each enclosure is reported in the technical note A4-4249 annexed to this certificate, as a function of the enclosure dimensions, of the temperature class and of the ambient temperature.

Intrinsic safety circuits

The electrical characteristics of the intrinsic safety circuits are reported on the label of the associated apparatus used.

This certificate may only be reproduced in its entirety and without any change, schedule included.

[13]

Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 02 ATEX 073**

[15] **Description of equipment** (follows)

The accessories used for cable entries and for closing unused apertures in the units of category II 2(1) G shall be certified according to the standards EN 50014 and EN 50018.

The accessories used for cable entries and for closing unused apertures in the units of category II 2(1) GD shall be certified according to the standards EN 50014, EN 50018 and EN 50281-1-1 and shall guarantee a degree of protection IP at least equal to that of the enclosure.

The service temperature of the command and signalling operators shall not be higher than 100 °C.

Warning label

"Use screws of quality A2-70 according UNI 7323 with ultimate tensile strength of at least 700 N/mm²".

Additional warnings

In case of enclosures including capacitors:

"After de-energizing, wait 10 minutes before opening"

In case of enclosures of temperature class T5:

"Use cables suitable for a temperature of 100 °C:

[16] **Report n. EX-A2/025632**

Routine tests

The manufacturer shall carry out the routine tests prescribed at clause 24 of the EN 50014 standard.

The routine overpressure test shall be carried out with the static method (clause 15.1.3.1 of EN 50018 standard) at the pressure of:

- 11.9 bar for enclosure size from 1 to 5
- 11.5 bar for enclosure size 6

Descriptive documents (prot. EX-A2/025634)

- | | |
|---|------------------|
| - n. A4-4249 Rev. 0 (10 p.) | dated 08.03.2002 |
| - n. A1-4239 Rev. 0 (2 p.) | dated 08.03.2002 |
| - Safety instructions F-270 Rev. 0 (7 p.) | dated 08.03.2002 |
| - EC declaration of conformity n. CE/0032 | dated 08.03.2002 |

One copy of all documents is kept in CESI files.

[17] **Special conditions for safe use**

None.

[18] **Essential Health and Safety Requirements**

Covered by standards.

EXTENSION n. 01/07

to EC-Type Examination Certificate CESI 02 ATEX 073



Equipment: Command and control units and interface units series CCF and EJB

Manufacturer: CORTEM S.p.A.

Address: Via Aquileia, 10 Villesse (Gorizia), Italia

Admitted variation

- Conformity to EN 60079-0 (2006), EN60079-1 (2004), EN 60079-11 (2007), 60079-26 (2004), EN 61241-0 (2006), EN 61241-1 (2004), EN 61241-11 (2006) Standards
- Update of nameplate
- Execution IIB + H₂
- Add new boxes:
 - EJB-01, AQS-1
 - EJB-55, EJB-55B
 - EJBX7 (only for stainless steel material)

Equipment identification and description

The marking of the equipment shall include the following:

- | | | |
|--|------------|--|
| | II 2(1) G | Ex d [ia] IIB T6 or T5 |
| | II 2(1) G | Ex d [ia] IIB+H ₂ T6 or T5 |
| | II 2(1) GD | Ex d[ia] IIB T6 or T5 ; Ex tD[iaD] A21 IP65 or IP66/67 T85 °C or T100°C |
| | II 2(1) GD | Ex d[ia] IIB+H ₂ T6 or T5 ; Ex tD[iaD] A21 IP65 or IP66/67 T85 °C or T100°C |

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 02ATEX073.

This document may only be reproduced in its entirety and without any change.

date 20 November 2007 - translation issued the 21 November 2007

prepared Nicoletta Penati

verified Mirko Balaz

approved Fiorenzo Bregani

Nicoletta Penati
Mirko Balaz
Fiorenzo Bregani

CESI S.p.A.
 Divisione Energia
 "Area Tecnica Certificazione"
 Il Responsabile

page 1/3

EXTENSION n. 01/07

to EC-Type Examination Certificate CESI 02 ATEX 073

Electrical characteristics

Unchanged

Intrinsic safety circuits

The electrical characteristics of the intrinsic safety circuits are reported on the label of the associated apparatus used.

Constructive characteristics

The execution IIB+H₂ and the new boxes:

- EJB-01, AQS-1
- EJB-55, EJB-55B
- EJBX7 (only for stainless steel material)

Are subject of the component certificate CESI 00 ATEX 036U. All the constructional details of the enclosures are reported in the documents annexed to the above mentioned component certificate.

Cable entries

The accessories used for cable entries and for unused holes shall be subject of separate certification:

- in the unit of category II 2(1)G shall be certified according to the standards: EN 60079-0 (2006); EN 60079-1 (2004);
- in the unit of category II 2(1)GD shall be certified according to the standards: EN 60079-0 (2006); EN 60079-1 (2004); EN 61241-0 (2006); EN 61241-1 (2004) and shall guarantee a degree of protection IP66 according to EN 60529 (1991) Standard.

Warning label

For the enclosures with temperature class T5, when the temperature under rated condition is higher than 70°C at the cable entry point or 80°C at the branching point of the conductors:
"use cables suitable for temperatures of 90°C"

Report n. EX- A70030707

Routine tests

The manufacturer shall carry out the routine tests prescribed at par. 27 of the EN 60079-0 (2006) and at par. 24 of the EN 61241-0 (2006) Standards.

The overpressure routine test shall be carried out with static method, at the pressure of

- 11.9 bar for enclosure size from 1 to 5
- 11.5 bar for enclosure size 6
- 10 bar for enclosure size 7

in conformity to the par. 15.1.3.1 of the EN 60079-1 Standard

EXTENSION n. 01/07

to EC-Type Examination Certificate CESI 02 ATEX 073

Descriptive documents (prot. EX-A7030715)

- Technical Note n. A4-4981 Rev. 0 (2 pages)	dated	23 March 2007
- Drawing A1-4239 Rev. 1 (2 sheets)	dated	23 March 2007
- Drawing A4-4951 Rev. 0	dated	02 April 2007
- Drawing A4-4952 Rev. 0	dated	02 April 2007
- EC Declaration of Conformity	dated	23 March 2007
- Safety instructions F-270 Rev. 2 (8 pages)	dated	23 March 2007

One copy of all documents is kept in CESI files.

Essential Health and Safety Requirements

The Health and Safety Requirements are assured by compliance with the following Standards:

- EN 60079-0 : 2006: Electrical apparatus for explosive gas atmospheres.
General requirements
- EN 60079-1 : 2004 Flamoproof enclosures "d".
- EN 60079-11: 2007 Electrical apparatus for explosive gas atmospheres – intrinsically safety "i"
- EN 60079-26: 2004 Special requirements for construction, test and marking of electrical apparatus of equipment group II, category 1G
- EN 61241-0 : 2006 Electrical apparatus for use in the presence of combustible dust.
General requirements
- EN 61241-1 : 2004 Protection by enclosures "tD"
- EN 61241-11: 2006 Dust protection – type of protection "iD"



EXTENSION n. 02/10

to EC-Type Examination Certificate CESI 02 ATEX 073

Equipment: Command and control units and interface units series CCF and EJB

Manufacturer: **COR.TEM S.p.A.**

Address: Via Aquileia, 10 – 34070 Villesse (GO) - Italy


Admitted variation


- Conformity to new edition of EN60079-1: 2007, EN 60079-26: 2007 standard;
- New type of protection for group I (only for stainless steel boxes);
- Modification of the minimum ambient temperature for enclosures of group II;
- Add new enclosures in aluminium alloy type: EJB-7 and EJB-7B.


Conformity to new edition of the harmonized European standards and types of protection

The equipment subject of the certificate CESI 02 ATEX 073 and annexed extension are conform to the standards: EN 60079-0: 2006, EN 60079-1: 2007, EN 60079-11: 2007, EN 60079-26: 2007, EN 61241-0: 2006, EN 61241-1: 2004, EN 61241-11: 2006

The equipment shall be marked as follows:

 II 2(1)G Ex d[ia] IIB T6 or T5 or Ex d[ia] IIB+H₂ T6 or T5

 II 2(1)GD Ex d[ia] IIB T6 or T5 or Ex d[ia] IIB+H₂ T6 or T5
Ex tD[iaD] A21 IP 65 or IP66/67 T85 °C or T100 °C

 I M2 Ex d[ia] I

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 02 ATEX 073.


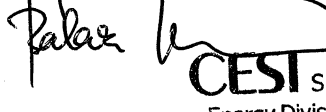
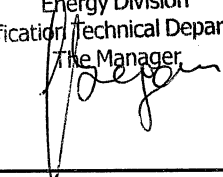
This document may only be reproduced in its entirety and without any change.

date 31st May 2010 - translation issued the 31st May 2010

prepared Damiano Cavanna

verified Mirko Balaz

approved Fiorenzo Bregani



CESI S.p.A.
Energy Division
"Certification Technical Department"
The Manager


page 1/3

EXTENSION n. 02/10

to EC-Type Examination Certificate CESI 02 ATEX 073

Identification and description of the equipment

The command and control units and interface units series CCF and EJB have identification and constructional characteristics conform to those indicated in the certificate CESI 02 ATEX 073 and annexed extensions with addition of new characteristics and admitted variation as indicated in this extension.

Admitted constructional modifications

The series of enclosures in subject increase of two new enclosures size in aluminium alloy named EJB-7 and EJB-7B. The constructional characteristics of all enclosures series CCF and EJB are detailed in the certificate CESI 00 ATEX 036U.

Ambient temperature

The equipments of group II can be realized for a minimum ambient temperature of -50°C .

All the components and electrical devices used into Ex-d enclosures shall be suitable for the minimum service temperature; the intrinsically safe associated apparatus shall be subject of separate certification according to EN 60079-11, EN 60079-26 and/or EN 61241-11 and suitable for the minimum service temperature.

The other electrical characteristics are unchanged compared to those indicated in the certificate CESI 02 ATEX 073 and annexed extension.

Cable entries

The accessories used for cable entries and for unused holes shall be subject of separate certification for service temperature of use and type of protection:

- Ex d IIB, according to EN 60079-0 and EN 60079-1 standards, for enclosure in execution Ex-d group IIB;
- Ex d IIC, according to EN 60079-0 and EN 60079-1 standards, for enclosure in execution Ex-d group IIB+H₂;
- Ex d I, according to EN 60079-0 and EN 60079-1 standards, for enclosure in execution Ex-d group I;

For the enclosure in execution Ex-tD the accessories shall be certified according to EN 61241-1 and shall guarantee a minimum degree of protection IP 66 or IP 67 also.

Rapporto n. EX-B0016192

Prove individuali

The manufacturer shall carry out the routine tests prescribed at paragraph 27 of 60079-0: 2006 standard, at paragraph 16 of the EN 60079-1: 2007 standard and paragraph 24 of EN 61241-0: 2006 standard.

The routine overpressure test shall be carried out on empty enclosure with the static method (paragraph 15.1.3.1 of EN 60079-1 standard), at:

- 13.7 bar on all Ex-d enclosures of group II for minimum ambient temperature until -50°C ;
- 11.9 bar on Ex-d enclosures size 1÷5 for minimum ambient temperature until -20°C
- 11.5 bar on Ex-d enclosures size 6 for minimum ambient temperature until -20°C
- 10.0 bar on Ex-d enclosures size 7 for minimum ambient temperature until -20°C

This document may only be reproduced in its entirety and without any change..

EXTENSION n. 02/10

to EC-Type Examination Certificate CESI 02 ATEX 073

Descriptive documents (prot. EX-B0016193)

- Technical note A4-5325 (pg. 4)	dated	19.10.2009
- Safety Instruction mod. F-270 rev. 3 (pg. 8)	dated	19.10.2009
- Drawing N. A1-4239 rev. 2 (2 sheets)	dated	19.10.2009

One copy of all documents is kept in CESI files.

Essential Health and Safety Requirements

The Essential Health and Safety Requirements are assured by compliance to the following standards:

- EN 60079-0: 2006 - Electrical apparatus for explosive gas atmosphere - General requirements.
- EN 60079-1: 2007 - Equipment protection by flameproof enclosure “d”
- EN 60079-11: 2007 - Intrinsic safety “i”
- EN 60079-26: 2007 – Electrical apparatus for group II, category 1G
- EN 61241-0: 2006 - Electrical apparatus for use in the presence of combustible dust - General requirements
- EN 61241-1: 2004 - Protection by enclosures “tD”
- EN 61241-11: 2006 – Type of protection “iD”

This document may only be reproduced in its entirety and without any change..

**EXTENSION n. 03/12**

to EC-Type Examination Certificate CESI 02 ATEX 073

Equipment: Command and control units and interface units series CCF and EJB**Manufacturer:** COR.TEM S.p.A.**Address:** Via Aquileia, 10 – 34070 Villesse (GO) – Italy.**Admitted variation**




- Update to new edition of EN 60079-0: 2009, EN 60079-1: 2007, EN 60079-11: 2007, EN 60079-26: 2007 and EN 60079-31: 2009 standards.
- Removed the use of silicon grease on flange joint for IP protection degree.
- New size of enclosure EJB-55B has been added.
- Codes upgrades for EJB-55 and EJB-55C types due to the introduction of the new model.

Conformity to new edition of the harmonized European standard

The equipment subject of the certificate CESI 02 ATEX 073 and annexed extension are conform to the standards:

EN 60079-0: 2009 EN 60079-1: 2007 EN 60079-11: 2007 EN 60079-26: 2007 EN 60079-31: 2009

and shall be marked as follows:

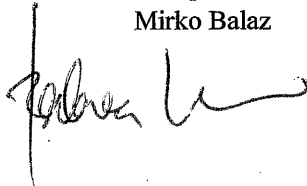
	II2(1)G	Ex d[ia Ga] IIB T6, T5 Gb	<i>or</i>	Ex d[ia Ga] IIB+H2 T6, T5 Gb
	I M2	Ex d[ia Ma] I Mb	<i>(Stainless Steel enclosures only)</i>	
	II2(1)GD	Ex d[ia Ga] IIB T6, T5 Gb	<i>or</i>	Ex d[ia Ga] IIB+H2 T6, T5 Gb
		Ex tb[ia Da] IIIC T85°C, T100°C Db		Ex tb[ia Da] IIIC T85°C, T100°C Db
		IP66/67	<i>(IP66 with operators)</i>	IP66/67 <i>(IP66 with operators)</i>

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 02 ATEX 073.

This document may only be reproduced in its entirety and without any change.

Date 18th April 2012 - translation issued the 18th April 2012**Prepared**

Mirko Balaz


Approved

Fiorenzo Bregani

CESI S.p.A.
 Testing & Certification Division
 Business Area Certification
 Il Responsabile

Fiorenzo Bregani

Page 1/3



PRD N. 018B
 Membro degli Accordi di Mutuo
 Riconoscimento EA, IAF e ILAC
 Signatory of EA, IAF and ILAC
 Mutual Recognition Agreements

CESI S.p.A.

Via Rubattino 54

I-20134 Milano - Italy

Tel: +39 02 21251

Fax: +39 02 21255440

e-mail: info@cesi.it

www.cesi.it

Capitale sociale € 8.550.000 interamente versato

C.F. e numero iscrizione Reg. Imprese di Milano 00793580150

P.I. IT00793580150

N. R.E.A. 429222

EXTENSION n. 03/12

to EC-Type Examination Certificate CESI 02 ATEX 073

Description of equipment

The EJB-.. and EJBX-.. and type AQS-1 flameproof enclosures series employed as command, control and interface units, are subject of the component certificate CESI 00 ATEX 036U. The certificate annexed documents contains all constructional details of enclosures.

The EJB-..and EJBX-.. and type AQS-1 command, control and interface units series have unchanged characteristics respect to those indicated into CESI 02 ATEX 073 certificate and relatives extensions.

Admitted constructional modifications

- The command, control and interface units EJB-.. and EJBX-.. and type AQS-1 series are realized with O-ring gasket placed in the cover (enclosure internal side) for IP guaranty on flanged joint.

- To the series of command, control and interface units is added a new size of aluminium alloy enclosure EJB-55, with the modification of the height of enclosure. The codes upgrades have been made for EJB-55B (new size), EJB-55 and EJB-55C due to the introduction of the new model.

Electrical characteristics for new EJB-55B size

Rated Voltage	24 ÷ 1000Vac	12 ÷ 250Vdc
Max. current on the contacts	650 A	
Rated frequency	50/60 Hz	
Max. power on the lamps	5W (for T _{amb} + 40 °C) 3W (for T _{amb} + 55 °C)	
Temperature class / max. surface temperature: max. T _{amb} + 40 °C	Max. Dissipated Power (W) with signalling	
T6 / T85°C	210	(signalling LED only)
T5 / T100°C	210	(signalling LED and lamps)
max. T _{amb} + 55 °C	Max. Dissipated Power (W) with signalling	
T6 / T85°C	160	(signalling LED only)
T5 / T100°C	160	(signalling LED and lamps)
Intrinsic safety circuits: The electrical characteristics of the intrinsic safety circuits are reported on the label of the associated apparatus used.		

Electrical characteristics for all other sizes

Unchanged.

Ambient temperature for all sizes

- 20 ÷ + 40°C.

- 20 ÷ + 55°C.

- 50 ÷ + 40°C.

- 50 ÷ + 55°C.

All the components and electrical devices used into Ex-d enclosures shall be suitable for the minimum service temperature; the intrinsically safe associated apparatus shall be subject of separate certification according to EN 60079-11, EN60079-26 and/or EN 60079-31 and suitable for the minimum service temperature.

Cable entries

The accessories used for cable entries and plugs for not used holes shall be subject of separate certification, suitable for type of enclosure execution, according to the applicable standards.

Temperature class for all other sizes

For category 2(1)G apparatus: T6 or T5 is a function of the enclosure dimension, ambient temperature and power dissipated inside the enclosure.

Maximum surface temperature for all other sizes

For category 2(1)D apparatus: T85 °C or T100°C is a function of the enclosure dimension, ambient temperature and power dissipated inside the enclosure.

This document may only be reproduced in its entirety and without any change

EXTENSION n. 03/12

to EC-Type Examination Certificate CESI 02 ATEX 073

Warning label

- *"Use screws of quality A2-70 according UNI 7323 with ultimate tensile strength of at least 700 N/mm²".*
- For enclosures with capacitors:
"After de-energizing. Wait 10 minutes before opening".
- For enclosures with temperature class T5:
"Use cables suitable for temperatures of 90°C".

Report n. EX-B2012966

Routine tests

The manufacturer shall carry out the routine tests prescribed at paragraph 27 of EN 60079-0 standard, at paragraph 16 of the EN 60079-1 standard and paragraph 6 of EN 60079-31 standard.

The routine overpressure test shall be carried out on empty enclosure with the static method (paragraph 15.1.3.1 of EN 60079-1 standard), at:

- 13.7 bar on all Ex-d empty enclosure of group II for minimum ambient temperature until -50 °C;
- 11.9 bar on Ex-d empty enclosure size 1÷5 for minimum ambient temperature until -20 °C;
- 11.5 bar on Ex-d empty enclosure size 6 for minimum ambient temperature until -20 °C;
- 10.0 bar on Ex-d empty enclosure size 7 for minimum ambient temperature until -20 °C.

Descriptive documents (prot. EX- B2012974)

- | | | | |
|---|-------|-------|------------|
| - Technical note A4-5653 (pg. 5) | rev.0 | dated | 04.04.2012 |
| - Safety Instruction F-270 (pg. 8) | rev.4 | dated | 04.04.2012 |
| - EC Declaration of Conformity no. 0032 (pg. 1) | rev.0 | dated | 04.04.2012 |

One copy of all documents is kept in CESI files.

Special conditions for safe use (X)

None.

Essential Health and Safety Requirements

The Essential Health and Safety Requirements are assured by compliance to the following standards:

- | | |
|-------------------|--|
| EN 60079-0: 2009 | Explosive atmospheres – Part 0: Equipment - General requirements; |
| EN 60079-1: 2007 | Explosive atmospheres – Part 1: Equipment protection by flameproof enclosure "d"; |
| EN 60079-11: 2007 | Explosive atmospheres – Part 11: Equipment protection by intrinsic safety "i"; |
| EN 60079-26: 2007 | Electrical apparatus for explosive gas atmospheres - Part 26: Construction, test and marking of Group II Category 1G electrical apparatus; |
| EN 60079-31: 2009 | Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t". |