

secom
here comes the light



ATEX
LIGHTING FAMILY

LUMINARIAS ATMÓSFERAS EXPLOSIVAS
LUMINAIRES EXPLOSIVE ATMOSPHERES



EXPLOSIVE ATMOSPHERES

What is meant by explosive atmosphere?

According to the applicable regulations (RD 681/2003), an explosive atmosphere is defined as a mixture with air, under atmospheric conditions, of flammable substances in the form of gases, vapors, mists or dusts, in which, after ignition, combustion spreads to the entire unburned mixture.

From this definition, from a preventive point of view, risk areas are considered to be those in which explosive atmospheres can form in such quantities that special precautions must be taken to protect the safety and health of the workers involved. In accordance with the applicable regulations, it is required to classify the areas with risk atmospheres; it is a way of categorizing the danger of the area, due to the presence of an explosive atmosphere, according to the greater or lesser frequency with which it occurs and its permanence, and to adopt the necessary measures to avoid any ignition that could lead to explosion.

Basic parameters on explosive atmospheres due to the presence of flammable gases, vapors or mists

The REBT technical instruction MIBT 026 defines an explosive atmosphere as “a mixture with air of flammable gases, vapors, mists, dusts or fibers, under atmospheric conditions, in which, after ignition, combustion spreads through the entire unconsumed mixture”. For ignition to occur at a point in space, the simultaneous presence of an explosive atmosphere with an energetic contribution is necessary.

The energy input may be in the form of flame, spark, electric arc or excessive temperature. The explosive atmosphere can be generated by dilution in air of flammable gases, vapors or mists, distinguishing two groups:

Group I: Mines (methane).



Group II: Industry other than mining.



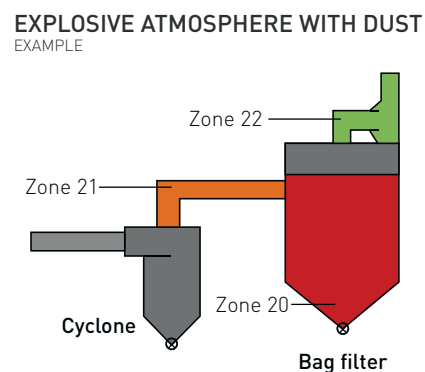
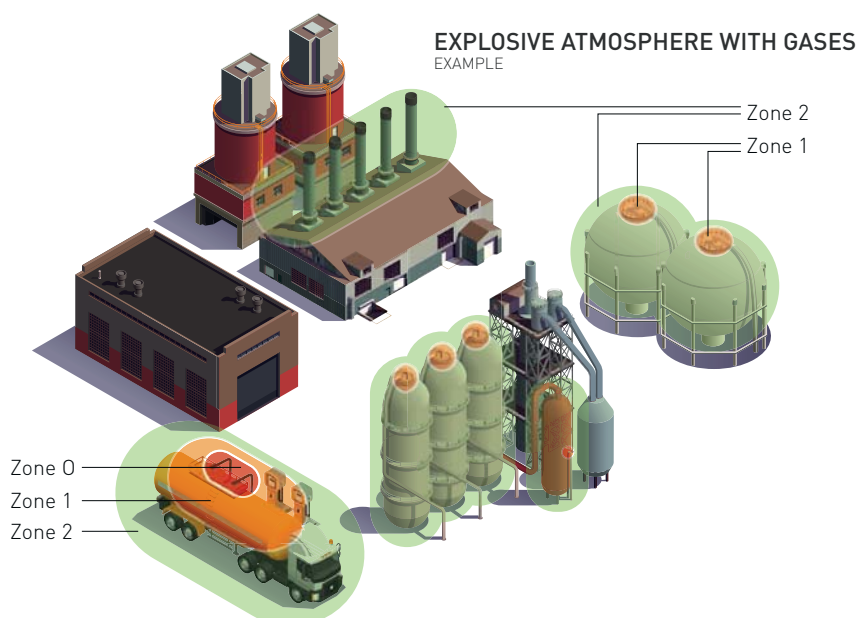
Both for the classification of these sites and to provide electrical equipment with an adequate protection mode to prevent the generation of ignition sources in an explosive atmosphere, it is important to take into account certain parameters that influence the risk of explosion and the mechanisms to prevent it from starting or to confine it once it has started.



CLASSIFICATION BY ZONE OF EXPLOSION

Explosion risk areas are classified according to the probability of the presence of an explosive atmosphere, based on a calculation of probabilities/hours per year, and are divided into three scenarios:

- Zone 0 (Gas) or Zone 20 (Dust): Very likely (Permanent or for long periods of time)
- Zone 1 (Gas) or Zone 21 (Dust): Probable (Occasional during normal operation)
- Zone 2 (Gas) or Zone 22 (Dust): Unlikely (Very occasional and short duration periods).



PRODUCT CATEGORY IDENTIFICATION BY ZONE

| Gases | | Dust | |
|-------|----------|------|----------|
| Zone | Category | Zone | Category |
| 0 | 1G | 20 | 1D |
| 1 | 2G | 21 | 2D |
| 2 | 3G | 22 | 3D |

EXAMPLES OF AREAS WITH RISK OF EXPLOSIVE ATMOSPHERES

- **Chemical industry:** Use of flammable liquids and gases.
- **Landfills and civil engineering:** Formation of flammable gases.
- **Energy production companies:** Coal dust generated during transport, grinding and drying.
- **Wastewater treatment companies:** Formation of flammable gases.
- **Woodworking industry:** Formation of wood dust.
- **Gas supply companies.**
- **Paint and enamel workshops:** Paint mists, solvents and powder pigments.
- **Manufacture of light material parts and metal carpentry workshops:** Explosive metal powders (aluminum, magnesium, etc.).
- **Agricultural facilities:** fodder dehydrators, almond shellers.
- **Fertilizers.**
- **Food industry:** Transportation, processing and storage of flour, starch, sugar, cocoa, milk and egg powder, spices and their derivatives.
- **Pharmaceutical industry:** Use of flammable liquids and gases.
- **Refineries.**
- **Textile industry:** Storage and treatment of cotton, linen and fibers.
- **Premises where flammable chemical products are used.**
- **Agricultural industries:** Silos for animal feed, cereals, starch and hay. Dryers.
- **Forestry industries:** Wood sawmills. Pulp and paper manufacturing.
- **Recycling companies.**



CE | 1282 |  | II | 3G | Ex nR | IIC | T5 | Gc

LL 105 2018 A

CE

CE Marking

1282

Notified Body Identification Number (in some cases)



Distinctive marking for equipment intended for use in explosive atmospheres

II

Group indication

3G

Category indication, showing whether the material is suitable for gas (G) or dust (D)

Indications for group, category and material protection levels

| Hazardous substance | Exposure time | Zone exposure time | Group | Category | Material protection level |
|---------------------|--|--------------------|-------|--------------|---------------------------|
| Gases Vapores | Present continuously or for long periods | Zone 0 | II | 1G | Ga |
| | Sporadically present | Zone 1 | II | 2G o 1G | Gb o Ga |
| | Rarely or never present | Zone 2 | II | 3G o 2G o 1G | Gc, Gb o Ga |
| Powders | Present continuously or for long periods | Zone 20 | II | 1D | Da |
| | Sporadically present | Zone 21 | II | 2D o 1D | Db o Da |
| | Rarely or never present | Zone 22 | II | 3D o 2D o 1D | Dc, Db o Da |
| Grisú | | Mining | I | M1 | Ma |
| | | Mining | I | M1 o M2 | Mb o Ma |

Ex nR

Protection modes

Protection modes

| Principle of protection | Type of protection | Marcado | Use in zone |
|---|---------------------------|---------|---------------|
| Contains the explosion | Anti-deflagrante wrapping | Ex d | Zona 1 y 2 |
| Prevents arcing, sparks and overheating | Mayor seguridad | Ex e | Zona 1 y 2 |
| Limits energy | Seguridad intrínseca | Ex i | Zona 0, 1 y 2 |
| Prevents explosive atmosphere from entering the enclosure | Presurización | Ex p | Zona 1 y 2 |
| Prevents explosive atmosphere from entering the enclosure | Encapsulation | Ex m | Zona 1 y 2 |
| Prevents explosive atmosphere from entering the enclosure | Immersion in oil | Ex o | Zona 1 y 2 |
| Prevents the propagation of a explosion to the outside | Dust filling | Ex q | Zona 1 y 2 |
| Prevents the equipment from sparking | anti sparks | Ex n | Zona 2 |

IIC

Gas group

* When complying with the IIC also meets the IIA and IIB

Gas and Vapor Division

| Gas group | Gas or steam type | | | | | |
|-----------|---|--|-------------------------------------|--------------|--|----------------|
| IIA | ammonia methane ethane propane | ethyl alcohol cyclohexane butane | hexane gasoline | acetaldehyde | | |
| IIB | gas city acrylic nitrile | ethylene ethylene oxide | ethylene glycol hydrogen sulfide | | | |
| IIC | hydrogen | acetylene | | | | carbon sulfide |

T5

Temperature class

* When reaching T5 also meets T1 / T2 / T3 / T4

Temperature classes

| T1 | T2 | T3 | T4 | T5 | T6 |
|-------|-------|-------|-------|-------|------|
| 450°C | 300°C | 200°C | 135°C | 100°C | 85°C |

Gc

Equipment Protection Level (EPL): Protection level assigned to the material based on its risk of becoming a source of ignition.

CE | 1282 |  | II | 3D | Ex tc | IIIC | 100°C | Dc

LL 105 2018 A

CE

CE Marking

1282

Notified Body Identification Number (in some cases)



Distinctive marking for equipment intended for use in explosive atmospheres

II

Group indication

3D

Category indication, showing whether the material is suitable for gas (G) or dust (D)

Indications for group, category and material protection levels

| Hazardous substance | Exposure time | Zone classification | Group | Category | Material protection level |
|---------------------|--|---------------------|-------|--------------|---------------------------|
| Gases Vapores | Present continuously or for long periods | Zone 0 | II | 1G | Ga |
| | Present sporadically | Zone 1 | II | 2G o 1G | Gb o Ga |
| | Present rarely or never | Zone 2 | II | 3G o 2G o 1G | Gc, Gb o Ga |
| Powders | Present continuously or for long periods | Zone 20 | II | 1D | Da |
| | Present sporadically | Zone 21 | II | 2D o 1D | Db o Da |
| | Present rarely or never | Zone 22 | II | 3D o 2D o 1D | Dc, Db o Da |
| Grisú | | Mining | I | M1 | Ma |
| | | Mining | I | M1 o M2 | Mb o Ma |

Ex tc

Protection modes

Protection modes


| Principle of protection | Type of protection | Marking | Use in zone |
|---|-----------------------------|-------------------------|------------------|
| Contains the explosion | Octopus wrapping | Ex ta | Zone 21 y 22 |
| | | Ex tb | |
| | | Ex tc | |
| Prevents the atmosphere from entering explosive in the envelope | Powder pressurization | Ex pb Ex pc | Zone 21 y 22 |
| Limits energy | Intrinsically safe for dust | Ex ia Ex ib Ex ic | Zone 20, 21 y 22 |
| Exclusion of explosive atmosphere and limitation of surface temperature | Encapsulation | Ex ma Ex mb Ex mc | Zone 20, 21 y 22 |

IIIC

Dust group

*By complying with IIIC also complies with IIIA and IIIB

Subdivisions of Group III

| IIIA | IIIB | IIIC |
|--|---------------------|-----------------|
| Combustible particles in suspension | Non-conductive dust | Conductive dust |
|  | | |
| Material marked IIIB is suitable for group IIIA applications. Material marked IIIC is suitable for Group IIIB and IIIA applications.. | | |

100°C

Maximum surface temperature reached by the luminaire

Dc

Equipment Protection Level (EPL): Level of protection assigned to the equipment based on its risk of becoming an ignition source to the material based on its risk of becoming an ignition source.

CE | 1282 |  | II | 2G | Ex db | IIB+H2 | T6 | Gb

INERIS 14 ATEX 0064X

INERIS: Acronym of the Notified Laboratory.
14: Year of Certification.
ATEX: Atex Directive.
0064X: Certificate identification number.

CE

CE Marking

1282

Notified Body Identification Number (in some cases)



Distinctive marking for equipment intended for use in explosive atmospheres

II

Group indication

2G

Category indication, showing whether the material is suitable for gas (G) or dust (D)

Indications for group, category and material protection levels

| Hazardous substance | Exposure time | Zone classification | Group | Category | Material protection level |
|---------------------|--|---------------------|-------|--------------|---------------------------|
| Gases Vapors | Present continuously or for long periods | Zone 0 | II | 1G | Ga |
| | Present sporadically | Zone 1 | II | 2G o 1G | Gb o Ga |
| | Present rarely or never | Zone 2 | II | 3G o 2G o 1G | Gc, Gb o Ga |
| Powders | Present continuously or for long periods | Zone 20 | II | 1D | Da |
| | Present sporadically | Zone 21 | II | 2D o 1D | Db o Da |
| | Present rarely or never | Zone 22 | II | 3D o 2D o 1D | Dc, Db o Da |
| Grisú | | Mining | I | M1 | Ma |
| | | Mining | I | M1 o M2 | Mb o Ma |

Ex db

Modos de protección

Protection modes

| Principle of protection | Type of protection | market | Use in zone |
|---|---------------------------|--------|---------------|
| Contains the explosion | Anti-deflagrante wrapping | Ex d | Zone 1 y 2 |
| Prevents arcing, sparks and overheating | Increased safety | Ex e | Zone 1 y 2 |
| Limits energy | Intrinsic safety | Ex i | Zone 0, 1 y 2 |
| Prevents explosive atmosphere from entering the enclosure | Pressurization | Ex p | Zone 1 y 2 |
| Prevents explosive atmosphere from entering the enclosure | Encapsulation | Ex m | Zone 1 y 2 |
| Prevents explosive atmosphere from entering the enclosure | Immersion in oil | Ex o | Zone 1 y 2 |
| Prevents the spread of an explosion outdoors | Dust filling | Ex q | Zone 1 y 2 |
| Prevents the equipment from sparking | Antichispa | Ex n | Zone 2 |

IIB

Gas group

*By complying with IIB also meets the IIA

Gases and vapors division

| Gas group | Type of gas or steam | | | | | |
|-----------|---|--|--|--------------|--|---------------------|
| IIA | ammonia methane ethane propane | ethyl alcohol cyclohexane butane | hexane gasolines | acetaldehyde | | |
| IIB | nitrile acrylic city gas | ethylene ethylene oxide | ethylene glycol hydrogen sulfide | | | |
| IIC | hydrogen | acetylene | | | | carbon disulfide |

T6

Temperature class

*When meeting T6 also meets T1/T2/T3/T4/T5

Temperature classes

| T1 | T2 | T3 | T4 | T5 | T6 |
|-------|-------|-------|-------|-------|------|
| 450°C | 300°C | 200°C | 135°C | 100°C | 85°C |

Gb

Equipment Protection Level (EPL): Level of protection assigned to the material based on its risk of becoming an ignition source material according to its risk of becoming an ignition source.

CE | 1282 |  | II | 2D | Ex tb | IIC | 85°C | Db

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ATEX: Atex Directive.
0064X: Certificate identification number.

CE

CE Marking

1282

Notified Body Identification Number (in some cases)



Distinctive marking for equipment intended for use in explosive atmospheres

II

Group indication

2D

Category indication, showing whether the material is suitable for gas (G) or dust (D)

Indications for group, category and material protection levels

| Hazardous substance | Exposure time | Zone classification | Group | Category | Material protection level |
|---------------------|--|---------------------|-------|--------------|---------------------------|
| Gases Vapors | Present continuously or for long periods | Zone 0 | II | 1G | Ga |
| | Sporadically present | Zone 1 | II | 2G o 1G | Gb o Ga |
| | Rarely or never present | Zone 2 | II | 3G o 2G o 1G | Gc, Gb o Ga |
| Powders | Present continuously or for long periods | Zone 20 | II | 1D | Da |
| | Sporadically present | Zone 21 | II | 2D o 1D | Db o Da |
| | Rarely or never present | Zone 22 | II | 3D o 2D o 1D | Dc, Db o Da |
| Grisú | | Mining | I | M1 | Ma |
| | | Mining | I | M1 o M2 | Mb o Ma |

Ex tb

Protection modes

Protection modes


| Principle of protection | Type of protection | Marking | Use in zone |
|---|-----------------------------|-------------------------|------------------|
| Contains the explosion | Dust cover | Ex ta | Zone 21 y 22 |
| | | Ex tb | |
| | | Ex tc | |
| Prevents explosive atmosphere from entering the enclosure | Powder pressurization | Ex pb Ex pc | Zone 21 y 22 |
| Limits energy | Intrinsically safe for dust | Ex ia Ex ib Ex ic | Zone 20, 21 y 22 |
| Exclusion of explosive atmosphere and limitation of surface temperature | Encapsulation | Ex ma Ex mb Ex mc | Zone 20, 21 y 22 |

IIC

Dust group

***By complying with IIC also complies with IIIA and IIIB**

Subdivisions of Group III

| IIIA | IIIB | IIC |
|--|---------------------|-----------------|
| Combustible particles in suspension | Non-conductive dust | Conductive dust |
|  | | |
| Material marked IIIB is suitable for group IIIA applications. Material marked IIC is suitable for group IIIB and IIIA applications. | | |

85°C

Maximum surface temperature reached by the luminaire

Db

Equipment Protection Level (EPL): Level of protection assigned to the equipment based on its risk of becoming an ignition source to the material based on its risk of becoming an ignition source.

GENERAL CONDITIONS

EXPLOSIVE ATMOSPHERES

TEAM CLASSIFICATION

Electrical apparatus operating in potentially explosive areas are classified into two groups and five categories.

The groups indicate the industrial environment where the equipment will be installed.

Group I: this group includes equipment and protection systems designed to operate in subway or surface mines where explosive mixtures of gases and combustion dusts may occur. or surface mines, where explosive mixtures of gases and oxidizing dusts may occur.

Group II: this group includes all other installations where explosive atmospheres may occur.
explosive atmospheres.

The categories mark, according to the safety level, the operating zone of the apparatus.

For Group I we have two categories (M1 and M2) and for Group II we have three (1, 2 and 3).

| | Category | Zone | Exposure time | Level of protection |
|----------|----------|------|--|---------------------|
| Group I | M1 | | Present continuously or for long periods | Very high |
| | M2 | | Present sporadically | High |
| Group II | 1 G | 0 | Present continuously or for long periods | Very high |
| | 1 D | 20 | | |
| | 2 G | 1 | Present sporadically | High |
| | 2 D | 21 | | |
| | 3 G | 2 | Present rarely or never | Normal |
| | 3 D | 22 | | |

PROTECTION MODES

| | Marking | Principle of protection | Type of protection | Use in zone | EN Standard |
|---|---------|---|---------------------------|------------------|-------------|
| G | Ex d | Contains the explosion | Anti-deflagrante wrapping | Zone 1 y 2 | EN 60079-1 |
| | Ex e | Prevents arcing, sparks and overheating | Increased safety | Zone 1 y 2 | EN 60079-7 |
| | Ex i | Limits energy ia = for use in zone 0, 1 and 2 ib = for use in zone 1 and 2 | Intrinsic safety | Zone 0, 1 y 2 | EN 60079-11 |
| | Ex p | Prevents explosive atmosphere from entering the enclosure px = for use in zones 1 and 2 py = para uso en zona 1 y 2 pz = for use in zone 1 and 2 | Pressurization | Zone 1 y 2 | EN 60079-2 |
| | Ex m | Prevents explosive atmosphere from entering the enclosure ma = for use in Zone 0, 1 and 2 mb = for use in zone 1 and 2 | Encapsulation | Zone 1 y 2 | EN 60079-18 |
| | Ex o | Prevents explosive atmosphere from entering the enclosure | Immersion in oil | Zone 1 y 2 | EN 60079-6 |
| | Ex q | Prevents the spread of an explosion outdoors | Relleno de polvo | Zone 1 y 2 | EN 60079-5 |
| | Ex n | Prevents the equipment from sparking nA = anti-sparks nC = anti-spark device, in which the contacts are protected nL = power-limited device | Anti-sprks | Zone 2 | EN 60079-15 |
| | Ex op | Limits the energy of the optical beam op is = inherent protection from optical radiation op pr = optical radiation protection op sh = optical radiation interlocking | Optical safety | Zone 1 y 2 | EN 60079-28 |
| D | Ex t | Contains the explosion ta = for use in zone 20 tb = for use in zone 21 tc = for use in zone 22 | Octopus wrapping | Zone 21 y 22 | EN 60079-31 |
| | Ex p | Prevents explosive atmosphere from entering the enclosure pb = for use in zone 21 pc = for use in zone 22 | Powder pressurization | Zone 21 y 22 | EN 61241-4 |
| | Ex i | Limits energy ia = for use in zones 20, 21 and 22 ib = for use in zone 21 and 22 ic = for use in zone 22 | Intrinsic safety for dust | Zone 20, 21 y 22 | EN 60079-11 |
| | Ex m | Prevents explosive atmosphere from entering the enclosure ma = for use in zones 20, 21 and 22 mb = for use in zones 21 and 22 mc = for use in zone 22 | Encapsulation | Zone 20, 21 y 22 | EN 60079-18 |

ATEX10/20/30/40/50 GAS MARKING

II 2 G Ex db IIC T6 Gb

ATEX CATEGORY SECOM LUMINAIRES

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CE | 1282 |  | II | 2G | Ex db | IIC | T6 | Gb

EMC 18 ATEX 2599

EMC: Acronym of the Notified Laboratory.
18: Year of Certification.
ATEX: Atex Directive.
2599: Certificate identification number.

CE

CE Marking

1282

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Distinctive marking for equipment intended for use in explosive atmospheres

II

Group indication

2G

Category indication, showing whether the material is suitable for gas (G) or dust (D)

Indications for group, category and material protection levels

| Hazardous substance | Exposure time | Zone classification | Group | Category | Material protection level |
|---------------------|--|---------------------|-------|--------------|---------------------------|
| Gases Vapors | Present continuously or for long periods | Zone 0 | II | 1G | Ga |
| | Present sporadically | Zone 1 | II | 2G o 1G | Gb o Ga |
| | Present rarely or never | Zone 2 | II | 3G o 2G o 1G | Gc, Gb o Ga |
| Powders | Present continuously or for long periods | Zone 20 | II | 1D | Da |
| | Present sporadically | Zone 21 | II | 2D o 1D | Db o Da |
| | Present rarely or never | Zone 22 | II | 3D o 2D o 1D | Dc, Db o Da |
| Grisú | | Mining | I | M1 | Ma |
| | | Mining | I | M1 o M2 | Mb o Ma |

Ex db

Protection modes

Protection modes

| Principle of protection | Type of protection | Marking | Use in zone |
|---|----------------------------|---------|---------------|
| Contiene la explosión | Envolvente antideflagrante | Ex d | Zona 1 y 2 |
| Prevents arcing, sparks and overheating | Increased safety | Ex e | Zona 1 y 2 |
| Limits energy | Intrinsic safety | Ex i | Zona 0, 1 y 2 |
| Prevents explosive atmosphere from entering the enclosure | Pressurization | Ex p | Zona 1 y 2 |
| Prevents explosive atmosphere from entering the enclosure | Encapsulation | Ex m | Zona 1 y 2 |
| Prevents the atmosphere from entering the enclosure | Immersion in oil | Ex o | Zona 1 y 2 |
| Prevents the spread of an explosion outdoors | Dust filling | Ex q | Zona 1 y 2 |
| Prevents the equipment from sparking | anti sparks | Ex n | Zona 2 |

IIC

Gas group

***By complying with the IIC also complies with the IIA and IIB**

División de gases y vapores

| Gas group | Tipo de gas o vapor | | | | | |
|-----------|---|--|--|--------------|--|---------------------|
| IIA | ammonia methane ethane propane | alcohol etílico ciclohexano butano | hexane gasolines | acetaldehyde | | |
| IIB | nitrile acrylic city gas | ethylene ethylene oxide | ethylene glycol hydrogen sulfide | | | |
| IIC | hydrogen | acetylene | | | | carbon disulfide |

T6

Temperature class

***When meeting T6 also meets T1/T2/T3/T4/T5**

Temperature classes

| T1 | T2 | T3 | T4 | T5 | T6 |
|-------|-------|-------|-------|-------|------|
| 450°C | 300°C | 200°C | 135°C | 100°C | 85°C |

Gb

Equipment Protection Level (EPL): Level of protection assigned to the material based on its risk of becoming an ignition source material according to its risk of becoming an ignition source.

* Color marking of Secom's Atex luminaire compliance specifications

ATEX10/20/30/40/50 MARKED POWDER

II 2 D Ex tb IIIC T80°C Db

ATEX CATEGORY SECOM LUMINAIRES

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CE | 1282 |  | II | 2D | Ex tb | IIIC | 80°C | Db

EMC 18 ATEX 2599

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ATEX: Atex Directive.
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II

Group indication

2D

Category indication, showing whether the material is suitable for gas (G) or dust (D)

Indications for group, category and material protection levels

| Hazardous substance | Exposure time | Zone classification | Group | Category | Material protection level |
|---------------------|--|---------------------|-------|--------------|---------------------------|
| Gases Vapors | Present continuously or for long periods | Zone 0 | II | 1G | Ga |
| | Present sporadically | Zone 1 | II | 2G o 1G | Gb o Ga |
| | Present rarely or never | Zone 2 | II | 3G o 2G o 1G | Gc, Gb o Ga |
| Powders | Present continuously or for long periods | Zone 20 | II | 1D | Da |
| | Present sporadically | Zone 21 | II | 2D o 1D | Db o Da |
| | Present rarely or never | Zone 22 | II | 3D o 2D o 1D | Dc, Db o Da |
| Grisú | | Mining | I | M1 | Ma |
| | | Mining | I | M1 o M2 | Mb o Ma |

Ex tb

Protection modes

Protection modes

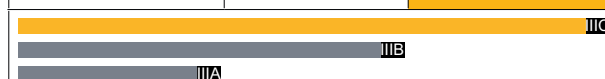
| Principle of protection | Type of protection | Marking | Use in zone |
|---|-----------------------------|-------------------------|------------------|
| Contains the explosion | Octopus wrapping | Ex ta | Zone 21 y 22 |
| | | Ex tb | |
| | | Ex tc | |
| Prevents explosive atmosphere from entering the enclosure | Powder pressurization | Ex pb Ex pc | Zone 21 y 22 |
| Limita la energia | Intrinsically safe for dust | Ex ia Ex ib Ex ic | Zone 20, 21 y 22 |
| Exclusion of explosive atmosphere and limitation of surface temperature | Encapsulation | Ex ma Ex mb Ex mc | Zone 20, 21 y 22 |

IIIC

Dust group

***By complying with IIIC also complies with IIIA and IIIB**

Subdivisions of Group III

| IIIA | IIIB | IIIC |
|---|---------------------|-----------------|
| Combustible particles in suspension | Non-conductive dust | Conductive dust |
|  | | |
| Material marked IIIB is suitable for group IIIA applications. Material marked IIIC is suitable for group IIIB and IIIA applications. | | |

80°C

Maximum surface temperature reached by the luminaire

Db

Equipment Protection Level (EPL): Level of protection assigned to the equipment based on its risk of becoming an ignition source to the material based on its risk of becoming an ignition source.

LUMINAIRES WITH COMPLIANCE ATEX DIRECTIVE

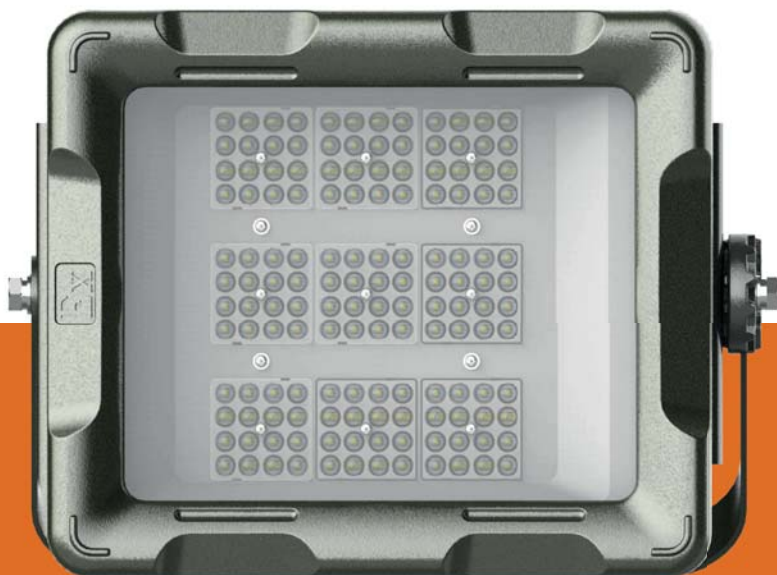
Secom's ATEX family of luminaires are designed to operate in areas with risk of explosion, complying with the ATEX directive 2014/34/EU, issued and applicable in the European Union.

Atex Directive
Number: 2014/34/UE
ECM 18 ATEX 2599

Atex Category
II 2 G Ex db IIC T6 Gb
II 2 D Ex tb IIIC T80°C Db

CE Standards
UNE-EN 60598-1:2015+A1:2018
UNE-EN 60598-2-5:2016

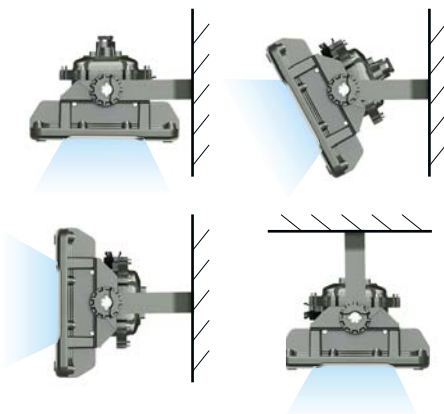
Atex Standards
EN 60079-0:2012+A11:2013
EN 60079-1:2014
EN 60079-28:2015
EN 60079-31:2014



Luminaires manufactured with high quality materials
high quality, giving them resistance and robustness.

Reinforced aluminum structure and safety glass diffuser.

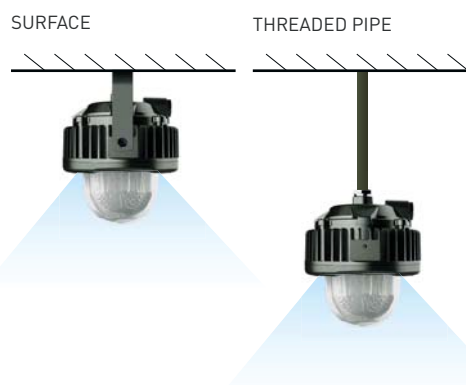
Angle of orientation: Up to 180°.



Installation systems:

Surface: by means of loop (included in product).

Suspension: by means of threaded tube
(threaded pipe not included).





WATERTIGHT SCREEN WATERTIGHT TUBE SCREEN



ATEX908

PANTALLA ESTANCA / WATERPROOF SCREEN


new

Color Secundario
Secondary Colour


58

Categoría ATEX gas: II 3G Ex nR IIC T5 Gc
Categoría ATEX polvo: II 3D Ex tc IIIC T100°C Dc


ZONA 2-22




Superficie
Surface




LED
W




Driver
Incluido
Included




120°




K




CRI




50.000h.




ATEX




IP
66




IK
08




+50°
-20°



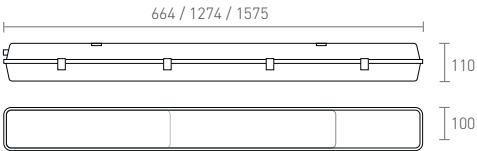
Kg.
ATEX 16w
1,5



Kg.
ATEX 32w
3



Kg.
ATEX 40w
3,5



ATEX908/

PANTALLA ESTANCA / WATERPROOF SCREEN

| Ref. | Color / Colour | Medidas / Measures | W | (83) lm 3000k | *[84] lm 4000k | (85) lm 5000k |
|---------------|----------------|--------------------|----|------------------|-------------------|------------------|
| ATEX908 16 84 | Gris / Gray | 664x100x110 | 16 | 2560 | 2670 | 2670 |
| ATEX908 32 84 | Gris / Gray | 1274x100x110 | 32 | 5120 | 5340 | 5340 |
| ATEX908 40 84 | Gris / Gray | 1575x100x110 | 40 | 6310 | 6700 | 6700 |

*Estándar / *Standard

ATEX909

PANTALLA TUBO ESTANCA / WATERPROOF TUBE SCREEN

new

Color Secundario

Secondary Colour

58

Categoría ATEX gas: II 2G Ex db IIB+H2 T6 Gb

Categoría ATEX polvo: II 2D Ex tb IIIC T85°C Db

ZONA 1-21 y ZONA 2-22

Superficie
Surface

LED
W

28w
55w
70w

Driver
Incluido
Included

120°

K

4000
5000

CRI

>80

50.000h.

ATEX

IP
66

IK
10

+50°
-20°

Kg.

ATEX 16w
9,7

Kg.

ATEX 32w
11,5

Kg.

ATEX 40w
12,3



BRIDAS

CLAMPS



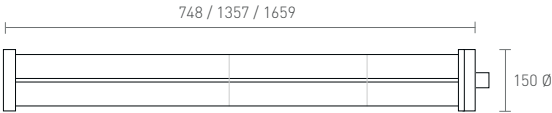
TAPÓN Ex db

PLUG Ex db



PRESANSAESTOPA Ex db

CABLEGLAND Ex db



ATEX909/

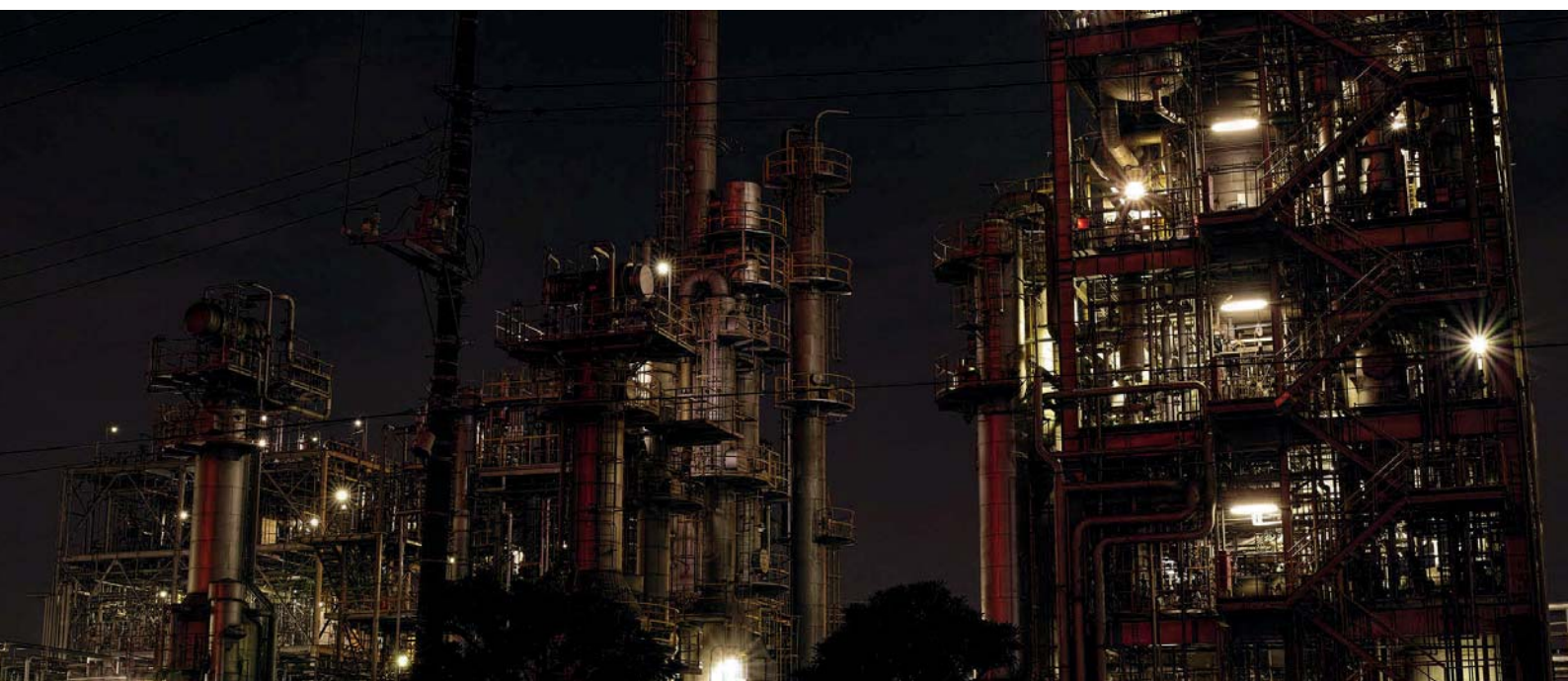
PANTALLA TUBO ESTANCA / WATERPROOF SCREEN

| Ref. | Color / Colour | Medidas / Measures | W | *[84] lm 4000k | [85] lm 5000k |
|---------------|----------------|--------------------|----|-------------------|------------------|
| ATEX909 28 84 | Gris / Gray | 748x150 | 28 | 4300 | 4300 |
| ATEX909 55 84 | Gris / Gray | 1357x150 | 55 | 8600 | 8600 |
| ATEX909 70 84 | Gris / Gray | 1659x150 | 70 | 10740 | 10740 |

*Estándar / *Standard



PROJECTORS BELLS



ATEX 40/50

PROYECTOR / FLOOD LIGHT

Color Secundario
Secondary Colour



new



Superficie
Surface



LED
W
30w 100w
50w 150w
70w 200w



Driver
Incluido
Included



90°
60°



5700



CRI
>70



100.000h.



ATEX



IP
66



IK
08



WF2

Grado
anticorrosión
Anticorrosion
grade



+50°
-30°



Kg.



Kg.



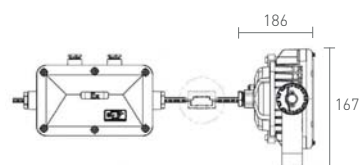
Kg.

ATEX40
9

ATEX50
8,8



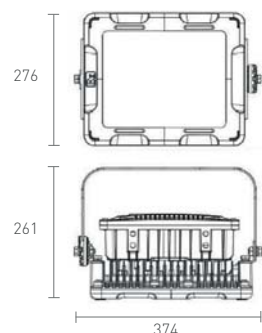
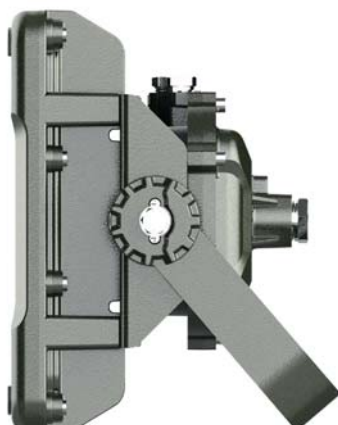
EMERGENCIA / EMERGENCY



ATEX40 / PROYECTOR CON EMERGENCIA (KE) / FLOOD LIGHT WITH EMERGENCY (KE) / 90°

| Ref. | Color / Colour | W | W Emergencia / Emergency | *[85] lm 5700k |
|-----------|----------------|----|-----------------------------|-------------------|
| ATEX40 30 | Gris / Gray | 30 | 13,5 | 3600 |
| ATEX40 50 | Gris / Gray | 50 | 13,5 | 6000 |
| ATEX40 70 | Gris / Gray | 70 | 13,5 | 8400 |

*Estándar / *Standard



ATEX50 / PROYECTOR / HIGH BAY / 60°

| Ref. | Color / Colour | W | *[85] lm 5700k |
|-----------|----------------|-----|-------------------|
| ATEX50 10 | Gris / Gray | 100 | 12000 |
| ATEX50 15 | Gris / Gray | 150 | 18000 |
| ATEX50 20 | Gris / Gray | 200 | 24000 |

*Estándar / *Standard

ATEX 10/20/30

CAMPANAS / HIGH BAY

new

Color Secundario
Secondary Colour



58



Tubo roscado
Threaded tube



Superficie
Surface



LED
W
10w 20w 30w 40w



Driver
Incluido
Included



120°
140°
95°



5700



>70



100.000h.



ATEX



IP
66



IK
08



WF2



Grado anticorrosión
Anticorrosion grade



+50°
-30°



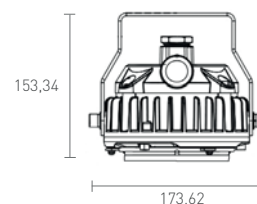
ATEX10
3,2



ATEX20
3,2



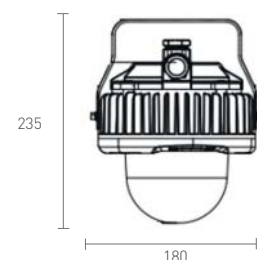
ATEX30
8,8



ATEX10 / MINI CAMPANA - PORYECTOR / MINI HIGH BAY - FLOOD LIGHT / 120°

| Ref. | Color / Colour | W | *[85] lm 5700k |
|-----------|----------------|----|-------------------|
| ATEX10 10 | Gris / Gray | 10 | 1200 |
| ATEX10 20 | Gris / Gray | 20 | 2400 |
| ATEX10 30 | Gris / Gray | 30 | 3600 |

*Estándar / *Standard



ATEX20 / MINI CAMPANA GRAN APERTURA / LARGE OPENING MINI HIGH BAY / 140°

| Ref. | Color / Colour | W | *[85] lm 5700k |
|-----------|----------------|----|-------------------|
| ATEX20 20 | Gris / Gray | 20 | 2400 |
| ATEX20 30 | Gris / Gray | 30 | 3600 |
| ATEX20 40 | Gris / Gray | 40 | 4800 |

*Estándar / *Standard



ATEX30 / CAMPANA / HIGH BAY / 95°

| Ref. | Color / Colour | W | *[85] lm 5700k |
|-----------|----------------|-----|-------------------|
| ATEX30 10 | Gris / Gray | 100 | 12000 |
| ATEX30 15 | Gris / Gray | 150 | 18000 |

*Estándar / *Standard



Los beneficios de las luminarias de LEDs de secom.

Ahorro energético por su alta eficiencia.
Ahorro en mantenimiento de luminarias.
Reproducción cromática (IRC) 80.
Amplia gama en temperaturas de color.
Amplia gama de medidas y de colores.
Posibilidad de regular las luminarias.
Ópticas de alto rendimiento.
Fácil montaje e instalación.

¿Por qué trabajar con secom?

Fabricación nacional de todas sus luminarias de LEDs.
Disponibilidad de todos los componentes de las luminarias de LEDs (disipadores, LEDs, circuitos, drivers, etc) para reposición.
El mejor servicio en luminarias de LEDs, debido a la fabricación nacional y al gran stocks de componentes.
Gran versatilidad en diseño, posibilidad de personalizar luminarias.
Productos que cumplen la normativa europea vigente.
LEDs Osram / Samsung.
Estricto control de calidad.
Gran inversión en I+D+i para el desarrollo de flujos lumínicos y tecnologías de disipación de temperatura.
PCB con fechador para verificar la vida media útil garantizada.

The benefits of secom LED lighting fittings.

Energy-saving because of his high efficiency.
Saving in maintenance.
Cromatic reproduction (IRC) 80.
Wide range of colour temperature.
Wide range of measures and colours.
Possibility of dimming the lighting fitting.
High output optics.
Easy installation.

Why should you work with secom?

Own production of all our LED light fitting.
Availability of all components of LEDs fittings (heat sink, LEDs, drivers, etc.) for replacement.
The best service in the LEDs fitting due to the production in our own production plants of and a large stock of components.
Flexibility in design and possibility of customize the fittings.
The products comply with European standards.
Components are Osram / Samsung.
Strict quality control.
Big investment in R&D on development of luminus fluxes and temperature dissipation technologies.
PCB with its production date for life span control.



secom
here comes the light

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