


ATEX Directive 2014/34/EU

Add value.
Inspire trust.



1

“Ex” symbol

The symbol  or the marking “Ex” indicates that the equipment falls under the scope of the ATEX Directive 2014/34/EU.

2

Equipment group I:

Intended for use in underground mines and surface installations of such mines, liable to be endangered by firedamp and/or combustible dust.

Equipment group II:

Intended for use in other places liable to be endangered by explosive atmospheres.

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Equipment category

Equipment category 1 = Very high level of protection – suitable for use in zones 0/20, 1/21, 2/22

Equipment category 2 = High level of protection – suitable for use in zones 1/21, 2/22

Equipment category 3 = Normal level of protection – suitable for use in zones 2/22

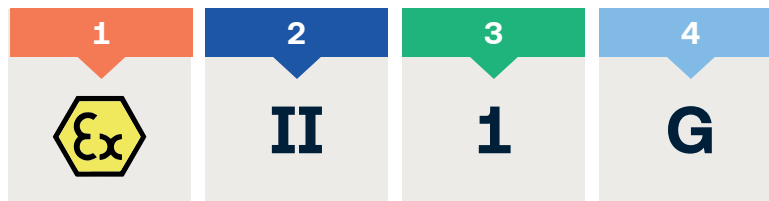
4

Type of explosive atmosphere:

G = Mixture of air and gases, vapours or mists

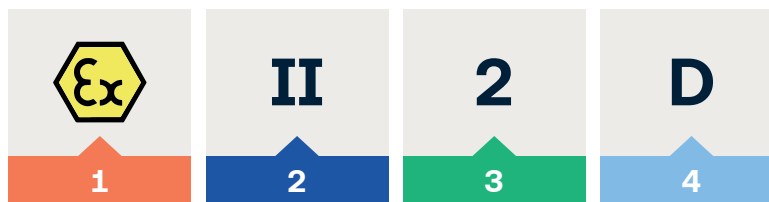
D = Mixture of air and dust or flyings

Group II: Gas



Labelling according to the requirements of the Directive

Group III: Dust



Labelling according to standard requirements



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Types of protection

Types of protection	Symbol	Standard
Basic standard electrical		EN 60079-0
Flameproof enclosure	d	EN 60079-1
Pressurised enclosure	p	EN 60079-2
Powder filling	q	EN 60079-5
Oil immersion	o	EN 60079-6
Increased safety	e	EN 60079-7
Intrinsic safety	i	EN 60079-11
Electrical apparatus type of protection “n”	n	EN 60079-15
Encapsulation	m	EN 60079-18
Equipment using optical radiation	op	EN 60079-28
Protection by enclosure	t	EN 60079-31
Basic standard non-electrical		EN ISO 80079-36
Constructional safety “c”	h	EN ISO 80079-37
Control of ignition source “b”	h	EN ISO 80079-37
Liquid immersion “k”	h	EN ISO 80079-37

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Equipment Protection Level (EPL)

EPL “Ga” corresponds to category 1G

EPL “Gb” corresponds to category 2G

EPL “Gc” corresponds to category 3G

EPL “Da” corresponds to category 1D

EPL “Db” corresponds to category 2D

EPL “Dc” corresponds to category 3D

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Temperature class

Temperature class	Maximum surface temperature in °C
T1	450
T2	300
T3	200
T4	135
T5	100
T6	85

At Group III (dust) the maximum surface temperature is indicated directly, as mentioned at the example.

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Group

Group	Definition
IIA	Propane
IIB	Ethylene
IIC	Hydrogen
IIIA	Combustible flyings
IIIB	Non-conductive dust
IIIC	Conductive dust