



Definition of the ATEX markings in accordance with ATEX Directive 94/9/EC and ATEX Workplace Directive 1999/92/EC

Ⓔ:	symbol for protection against explosion according to ATEX standards.
I	Tools of class I may be used in mines with explosive atmospheres and occurrence of combustible dust.
II	devices of group II are permissible for use in environments outside mining.
1	Category 1 means adaption to zone 0 of explosiveness. These are locations where explosive atmospheres will always be present. This is the interior of tank farms.
2 (gases)	Category 2 means adaption to zone 1 of explosiveness. These are locations where explosive atmospheres can occur regularly; this means 10-1000 h per year. These are e.g. filling stations, environments of tanker or working pits for motorcars.
G	with permission for gases and vapours.
D	approved for dust.
2 (dust)	Category 2 corresponds to zone 21 These are areas in which ever-explosive atmosphere in the form of a cloud of combustible dust in the air for long periods or frequently.
tD	Identification of the type of protection for explosion protection
Ex	with permission for use in surroundings with explosive atmosphere.
ia	marking after AtEx-rules: permission for use in environment with danger of explosives class of protection. ia = intrinsically safe. The circuits of the lamp will not produce any sparks that can ignite an explosive atmosphere. This is even true if two rare failures occur simultaneously.
ib	class of protection. ib = intrinsically safe. The circuits of the lamp will neither in regular function nor in case of failure produce any sparks that can ignite an explosive atmosphere.
I	Tools of class I may be used in mines with explosive atmospheres and occurrence of combustible dust.
IIB	The lamp has permission for explosive class IIB and may be used, when gases of this class are present, e.g. vapours of fuel.
IIC	The lamp has permission for explosives class IIC and may be used, when gases of this class are present, e.g. hydrogen, vapours of fuel or acetylene.
I/II (H2)	also accepted for use in atmospheres with hydrogen (gas of group IIC)
T4	The lamp has permission for temperature class T4. It may not be used when gases are present that will ignite below 135 °C.
M1	category M1: very high protection class. The use of this light may be continued even when an explosive atmosphere exists.