



ATEX MARKING EXPLAINED



How to read the labelling on products according to Directive ATEX 2014/34/EU

An example of the markings :



CE 1354	The designation number of Notified Body (NB) is added if it is involved in the conformity assessment Proces, NB number TI a.s. 1354				
Ex	The specific marking of explosion protection according to ATEX Directive 2014/34/EU				
II	Marking of the equipment according to Directive ATEX 2014/34/EU				
	(I) -intended for use in underground parts of mines as well as those parts of surface installations of such mines, which are endangered by firedamp and/or combustible dust				
	(II) -intended for use in areas in which explosive atmospheres caused by mixtures of air and gases, vapours or mists or air/dust mixtures				
2	Designation of categories of equipment for the Group				
	Equipment Group	Equipment Category	Zone of Use	Environment	
	I	M1	N/A	Methane & Coal Dust	
	I	M2			
	II	1	0/20	Gas, Vapour, Mists & Dusts	
	II	2	1/21		
II	3	2/22			
G	Only for device group II indicates the letter G (for gas) or D (dust)				
	G – for equipment designed for explosive atmospheres caused by gases, vapours or mists				
	(D) – for equipment designed for explosive atmospheres caused by dust				
Ex	Ex symbol means that the device corresponds to one or more of the type of protection, which are subject to specific standards of the series EN 60079 and/or EN 80079-36				
db	Symbol used according to the kind of protection of the specific standards or standards under which the device is made and approved, in this case, a "hard Cap" with a level of protection Gb according to EN- 60079-1	Type of Protection	Symbol	IEC/EN Standard	Basic Concept of Protection
		Flameproof	d	60079-1	Contains Explosion, Prevents Explosion
		Increased Safety	e	60079-7	No arcs, sparks or hot surfaces
		Intrinsic Safety	i	60079-11	Limits the energy of the spark and surface temperature
		Encapsulation	m	60079-18	Keeps Combustible dust out and avoids hot surface
		Protection by Enclosure	t	60079-31	Keeps Combustible dust out and avoids hot surface
IIC	The symbol of the sub-groups of gases or dusts to which your device is suitable				
	(I) for gas in the mines – Coal mining and/or combustible dusts				
	IIA – intended to subsets of the explosive gas atmosphere, which is a typical gas propane				
	IIB – intended to subsets of the explosive gas atmosphere, which is a typical gas ethylene is appropriate and where required by the IIA				
	IIC – intended to subsets of the explosive gas atmosphere, where a typical gas is hydrogen, it is appropriate and where required by the IIA or IIB				
	IIIA- designed into sub-groups of explosive dust atmosphere consist of combustible dusts				
	IIIB- designed into sub-groups of explosive dusts atmosphere consist of Non – Conductive dust				
	IIIC – intended to subsets of the explosive dust atmosphere consisting conductive dust, atmosphere is appropriate where IIIA or IIIB is required.				
T4	The symbol for the temperature class for explosive gaseous atmospheres				
	Temperature class	The maximum surface temperature in ° C	<ul style="list-style-type: none"> - If the temperature is between two classes, for example, may be marked "T1 or 350 ° C", or "350 ° C (T1)". - If it is higher than 450 ° C must be marked only the higher, such as 600 ° C - Equipment ambient Temperature: -20°C to +40°C unless otherwise stated on the equipment 		
	T1	450			
	T2	300			
	T3	200			
	T4	135			
	T5	100			
	T6	85			
	For explosive dust atmospheres shall indicate the maximum surface of temperature of, for example, "T 85 ° C"				
Gb	The level of protection of the equipment				
	Ma	facilities to be installed in the mine with "very high" levels of protection, guarantees sufficient protection that it is unlikely to become a source of ignition under normal operation, while the anticipated functional failures or malfunctions even if it remains under exceptional tension in gas explosion			
	Mb	facilities to be installed in the mine with the "high" levels of protection, guarantees sufficient that it is unlikely to become a source of ignition under normal operation or during foreseeable malfunctions.			
	Ga	device to be installed in the explosive gaseous atmospheres with "very high" levels of protection, is not a source of ignition under normal operation, while the implied fault, or during exceptional functional disorders.			
	Gb	device to be installed in the explosive gaseous atmospheres with a "high" level of protection, is not a source of ignition in the normal conditions of use or during foreseeable malfunctions.			
	Gc	device to be installed in the explosive gaseous atmospheres with the "enhanced" level of protection, is not a source of ignition under normal operation.			
	Da	device to be installed in the explosive dust atmospheres with "very high" levels of protection, is not a source of ignition under normal operation, while the anticipated functional failures or malfunctions during the exceptional condition.			
	Db	device to be installed in the explosive dust atmospheres with a "high" level of protection, is not a source of ignition under normal operation or during foreseeable malfunctions			
	Dc	device to be installed in the explosive dust atmospheres with the "enhanced" level of protection, is not a source of ignition under normal operation			