

Technical Data of Explosion Proof

Explosion Proof Marking

CE	2004		II	2	G	Ex d	II C	T6	Gb	IP66	- 40°C ≤ T _{amb} ≤ +60°C
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫
①	CE mark										
②	Identification number of the notified body										
③	Marking for equipment for use in explosive atmospheres.										
④	I : Mines II : Surface industries										
⑤	'1'=Zone 0, '2'=Zone 1, '3'=Zone 2										
⑥	"M" = methane gas, 'G' = gas, 'D' = dust										
⑦	Types of protection										
⑧	Equipment groups										
⑨	Temperature class										
⑩	'Ga'=Zone 0, 'Gb'= Zone 1, 'Gc'=Zone 2										
⑪	Protection rating(IP)										
⑫	Ambient operating temperature										

Area Classification

International Classification of Zones.

AREA CLASSIFICATION				
		Continuous hazard	Intermittent hazard	Possible hazard
IEC/ CENELEC		Zone 0 Zone 20(DUST)	Zone 1 Zone 21(DUST)	Zone 2 Zone 22(DUST)
USA	NEC505	Zone 0	Zone 1	Zone 2
	NEC500 CLASS I (GAS) CLASS II (DUST) CLASS III (FIBERS)	DIVISION 1		DIVISION 2

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The Temperature Classification

The temperature classification is based on the Maximum surface temperature of equipment.

The range of Maximum surface temperature per temperature class			
IEC/ EN/ NEC505		NEC500	
The range of Maximum surface temperature	Temperature class	The range of Maximum surface temperature	Temperature class
300°C - 450°C	T1	300°C - 450°C	T1
200°C - 300°C	T2	280°C - 300°C	T2
		260°C - 280°C	T2A
		230°C - 260°C	T2B
		215°C - 230°C	T2C
		200°C - 215°C	T2D
135°C - 200°C	T3	180°C - 200°C	T3
		165°C - 180°C	T3A
		160°C - 165°C	T3B
		135°C - 160°C	T3C
100°C - 135°C	T4	120°C - 135°C	T4
		100°C - 120°C	TA
85°C - 100°C	T5	85°C - 100°C	T5
Below 85°C	T6	Below 85°C	T6



Warning/
Signal/
Stackable



Signal &
Electric Horn/
Speakers



Vessels and
Heavy-Duty
Equipment



Explosion
Proof



Warning
Light Bar



Aviation
Obstruction
Lights



Signal Tower
Lights



USB/ETN
Signal Tower
Lights



Electric Horn/
Speakers



Industrial
LED Lights

Classification by Group According to NEC500

Classification of flammable material according to NEC500.

CLASS/ GROUP		GAS
CLASS 1	GROUP A	Acetylene or Equal
	GROUP B	Hydrogen, Butadiene, Ethylene oxide, Propylene oxide, Acrolein
	GROUP C	Ethyl ether, Ethylene, Acetaldehyde, Allyl alcohol, N-Butyraldehyde, Carbon monoxide, Crontonaldehyde, Cyclopropane, Diethyl ether, Diethylamine, Epichlorohydrin, Ethylene, Ethylenimine, Hydrogen Sulfide, Morpholine, 2-Nitropropane tetrahydrofuran, Isoprene or Unsymmetrical dimethylhydrazine(UDMH)
	GROUP D	Acetic acid (glacial), Acetone, Acrylonitrile, Ammonia, Benzene, Butane, 1-Butanol (Butyl alcohol), 2-Butanol(Secondary butyl alcohol), N-Butyl acetate, Isobutyl Acetate, Di-Isobutylene, Ethane, Ethanol(Ethyl alcohol), Ethyl acetate, Ethyl acrylate(Inhibited), Ethylenediamine(Anhydrous), Ethylene dichloride, Gasoline, Heptanes, Hexanes, Isoprene, Isopropyl, Ether, Mesityl oxide, Methane(Natural gas), Methanol (Methyl alcohol), 3-Methyl-1-Butanol(ISOAmyl alcohol), Methyl ethyl ketone, Methyl, Isobutyl ketone, 2-Methyl-1-Propanol(Isobutyl alcohol), 2-Methyl-2-Propanol (Tertiary butyl alcohol), Petroleum naphtha, Pyridine, Octanes, Pentanes, 1-Pentanol(Army alcohol), Propane, 1-Propanol(Propyl alcohol), 2-Propanol (Isopropyl alcohol), Propylene, Styrene, Toluene, Vinyl acetate, Vinyl chloride or Xylenes
CLASS 2	GROUP E	Metal dusts, Aluminum, Magnesium
	GROUP F	Coal, Coke, Carbon black, Charcoal dust
	GROUP G	GROUP E or F, Including flour, Starch, Grain, Wood, Plastic, Chemicals