



PRINCIPAL ELECTRICAL PROTECTION CONCEPTS						
STANDARD IEC/EN		CODE		PROTECTION CONCEPT	ZONE	
Gas	Dust	Gas	Dust		Gas	Dust
60079-0				General Requirements		
60079-1		Ex da Ex db Ex dc		Flameproof	0 1 2	
	60079-31		Ex ta Ex tb Ex tc	Enclosure		20 21 22
60079-2**	61241-4	Ex pxb Ex pyb Ex pzc	Ex pD	Pressurised	1 1 2	21/22
60079-5		Ex q		Powder Filled	1	
60079-6		Ex o		Oil Filled	1	
60079-7		Ex e		Increased Safety	1	
60079-11		Ex ia Ex ib Ex ic	Ex ia Ex ib Ex ic	Intrinsic Safety	0 1 2	20 21 22
60079-15		Ex nA Ex nR Ex nC		Non-sparking Restricted breathing Enclosed break	2	
60079-18		Ex ma Ex mb Ex mc	Ex ma Ex mb Ex mc	Encapsulation	0 1 2	20 21 22

****Soon to be published with combined gas and dust requirements.**

GAS GROUPS	
GAS GROUP	REPRESENTATIVE TEST GAS
I	Methane (mining only)
IIA	Propane
IIB	Ethylene
IIC	Hydrogen

Gases are classified according to the ignitability of gas-air mixture.
Refer to EN 60079-20-1 for classification of common gases and vapours.

TEMPERATURE CLASS	
T CLASS	MAXIMUM SURFACE TEMPERATURE
T1	450°C
T2	300°C
T3	200°C
T4	135°C
T5	100°C
T6	85°C

EQUIPMENT PROTECTION LEVEL	
EQUIPMENT PROTECTION LEVEL	ZONE
Ga	0
Gb	1
Gc	2
Da	20
Db	21
Dc	22
Ma	Energised*
Mb	De-energised*

Gases: Dust: Mining
*in presence of explosive atmosphere