

XP Explosionproof
 IS Intrinsically Safe Apparatus
 AIS Associated Apparatus with Intrinsically Connections
 Safe
 ANI Associated Nonincendive Field Wiring Circuit
 PX, PY, PZ Pressurized
 APX, APY, APZ Associated Pressurization Systems/ Components
 NI Nonincendive Apparatus and Nonincendive
 Field Wiring Apparatus
 DIP Dust-Ignitionproof
 S Special Protection


Class I: Gases, Vapours, Liquid
 Class II: Dust
 Class III: Fibers, Flyings

Division:
 Div 1 = Zone 0 and 1
 Div 2 = Zone 2

NEC 500
 Class I/Group A > Group IIC (Acetylen)
 Class I/Group B > Group IIB + H2 (Hydrogen)
 Class I/Group C > Group IIB (Ethylene)
 Class I/Group D > Group IIA (Propane)
 Class II/Group E > None (Metal Dust)
 Class II/Group F > None (Coal Dust)
 Class II/Group G > None (Grain Dust)
 Class III > None (Fibers)

Temperature Class

Maximum Surface Temperature	
T1	450°C
T2	300°C
T2A	280°C
T2B	260°C
T2C	230°C
T2D	215°C
T3	200°C
T3A	180°C
T3B	165°C
T3C	160°C
T4	135°C
T4A	120°C
T5	100°C
T6	85°C

i.roc 627	I.S.	Class I Div 1		Group A-D		T4
Zone		0	1			
i.roc 620			II 2 G	EEx ia	IIC	T4

Temperature Classes:
 (Max. temperature of a surface that gas can penetrate in the event of device failure. Should not be used in dust-ex-markings.)
T1 = 450°C
T2 = 300°C
T3 = 200°C
T4 = 135°C
T5 = 100°C
T6 = 85°C

Atmosphere
G = Gas
D = Dust
 (Mining-no details)

Device Group
I = Mining
II = all other explosive areas

Category
1 = Can be used in Zones 0 or 20
2 = Can be used in Zones 1 or 21
3 = Can be used in Zones 2 or 22
M1 = Mining
 (In case of firedamp, continuation of operation is possible)
M2 = Mining
 (Must be switched off in case of firedamp)

EEx
 Certified to the CENELEC standard

Types of Ignition Protection:
 o = Oil immersion
 p = Pressurisation
 q = Powder filling
 d = Pressure-proof housing
 e = Increased safety
 ia = Intrinsic safety
(required for Zone 0*)
***depends on device category**
 ib = Intrinsic safety
(adequate for Zone I (+2))
 m = Encapsulation
 s = Special protection
 n = Normal operation under normal conditions
(for Zone 2 only)
 nA = Non-sparking
 nC = Protected contacts
 nR = Vapour-proof housing
 nL = Limited energy
 nP = Simplified

Explosion Group
 (Data only for devices used in areas rendered potentially explosive by gas)
I = Methane (mining)
IIA = Propane
IIB = Ethylene
IIC = Most dangerous group (e.g. hydrogen)

