

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

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


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)

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

Temperature Class

Maximum Surface Temperature

T1	450°C	T3A	180°C
T2	300°C	T3B	165°C
T2A	280°C	T3C	160°C
T2B	260°C	T4	135°C
T2C	230°C	T4A	120°C
T2D	215°C	T5	100°C
T3	200°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 1 (+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)

