Comparison Table of Explosion-proof Standard

	TIIS-1979(Japan)	IEC & CENELEC (Europe)	USA & Canada
Based Standard	VDE 0170/0171 NFPA 1978 IEC 79-0 - 12	IEC 79-0 - 14 EN 50020/50039	NFPA 70-1987 ANSI/UL 913-1988 FM 3610 CSA C22-1986
Hazardous Locations and Applicable Type of Explosion-proof	Class 0: I only Class 1: I, d and f Class 2: I, d, f, e and o Dust under Consideration	Zone 0: ia only Zone 1: ia, ib, d and f Zone 2: ia, ib, d, f, e and o Dust under Consideration	Class I, Div.1: equivalent as Class 0 & 1, Zone 0 & 1 Class I, Div.2: equivalent as Class 2, Zone 2 Class II: Dust
Type of Explosion-proof	Flameproof : d Pressurized : f Increased safety : e Intrinsic safety : I Oil-immersed : o Special : s	Flameproof : d Pressurized : p Increased safety : e Intrinsic safety : ia/ib Oil-immersed : o Encapsulation : m Special : s	Not categorized by Types
Gas and Dust Classification More easily ignited ↓	1 : Propane 2 : Ethylene 3a: Hydrogen 3b: Carbon disulphide 3c: Acetylene 3n: All vapors in class 3 Dust under Consideration	II A: Propane II B: Ethylene II C: Hydrogen II C: Acetylene Dust under Consideration	Class I Group D: Propane Class I Group C: Ethylene Class I Group B: Hydrogen Class I Group A: Acetylene Class II Group G: Flour, Grain Class II Group F: Carbon dust Class II Group E: Metal Dust
Temperature Classification (Ignition temperature of Applicable gas or vapor)	G1: over 450 C G2: over 300 to 450 C G3: over 200 to 300 C G4: over 135 to 200 C G5: over 100 to 135 C G6: over 85 to 100 C	T1: over 450 C T2: over 300 C T3: over 200 C T4: over 135 C T5: over 100 C T6: over 85 C	T1: over 450 C T2: over 300 C T3: over 200 C T4: over 135 C T5: over 100 C T6: over 85 C
Code Example	d2G4	Ex d II BT4	Class I, Div.2, Group C D, T4
	i3aG5	Ex ia II CT5	Class I, Div.1, Group B C D, T5

(NOTE: TIIS means Technology Institute of Industrial Safety, Ministry of Labor, Japan)

eg. d2G4

- Shall be used at Class 1 and 2 locations
  Equivalent as Zone 1 and 2, Class I Div. 2, and Div.1 with special conditions
- Can be used for both 1: propane and 2: Ethylene
  Equivalent as T4(=T6, T5 and T4)
- Process temperature is less than G4 (=G6, G5 and G4)
  Equivalent as T4 (=T6, T5 and T4)