

SEACON (europe) LTD

ATEX - IECEx CERTIFICATION GUIDE

ZONING DEFINITIONS

Zones		Definitions
Gas	Dust	
0	20	A place in which an explosive atmosphere is continually present
1	21	A place in which an explosive atmosphere is likely to occur in normal operation occasionally
2	22	A place in which an explosive atmosphere is not likely to occur in normal operation, but if it does, only occurs for short periods

CATEGORIES

ATEX & IECEx Cat	Typical zone suitability
1G 1D	Equipment suitable for zone 0 Equipment suitable for zone 20
2G 2D	Equipment suitable for zone 1 Equipment suitable for zone 21
3G 3D	Equipment suitable for zone 2 Equipment suitable for zone 22

TYPES OF PROTECTION

GAS Type of protection	ATEX code	Standard
General requirements		EN 60079-0
Intrinsic safety	Ex ia & ib	EN 60079-11
Increased safety	Ex e	EN 60079-7
Flameproof	Ex d	EN 60079-1
Pressurisation	Ex p	EN 60079-2
Powder filling	Ex q	EN 60079-5
Encapsulation	Ex ma & mb	EN 60079-18
Oil immersion	Ex o	EN 60079-6
Type n	Ex n	EN 60079-15

 **II 2G Ex d IIB T6**

TEMPERATURE

T-Class	Max °C
T1	450
T2	300
T3	200
T4	135
T5	100
T6	85

GROUPS

I	Electrical equipment intended for use in mines susceptible to firedamp
II	Electrical equipment intended for use in places with an explosive gas atmosphere other than mines susceptible to firedamp
III	Electrical equipment intended for use in places with an explosive dust atmosphere other than mines susceptible to firedamp

GAS GROUPS

IIA	Propane
IIB	Ethylene
IIC	Hydrogen / Acetylene