

SENSING DEVICES LTD

Ex Classification Guide

Device Group Category Identify Ignition Protection Explosion Group Temperature Class

Symbol	Description
<mark>€x</mark>	EU explosion atmosphere symbol

Device Group	Description
Group I	For use in underground mines and with its related above ground equipment
Group II	For use above ground at risk of explosion

Category	Zone	Description	Safety
Category 1G	Zone 0	Inflammable gases, vapours or mist	Very high level of safety
Category 2G	Zone 1	Inflammable gases, vapours or mist	High level of safety
Category 3G	Zone 2	Inflammable gases, vapours or mist	Normal level of safety
Category 1D	Zone 20	Inflammable dust	Very high level of safety
Category 2D	Zone 21	Inflammable dust	High level of safety
Category 3D	Zone 22	Inflammable dust	Normal level of safety

Identify	Description
EEx	Defines that this is an electrical device

Class	Ignition protection category	Can be used	Safety principle
		in zone	
EExia	Intrinsically Safe (Special requirements)	Zone 0	Limits the energy of the spark and temperature of the surface
EExd	Explosion Proof, Pressurised encapsulation	Zone 1	Controls an internal explosion and extinguishes the flame
EExe	Increased Safety	Zone 1	No arcs, sparks or hot surfaces

Explosion Gas Group	Description
1	Methane (Mining only)
IIA	Propane
IIB	Ethylene
IC	Hydrogen

Temperature Class	Description
T1	450°C
T2	300°C
Т3	200°C
T4	135°C
T5	100°C
T6	85°C