

Standards & Regulations

for Gas Detectors

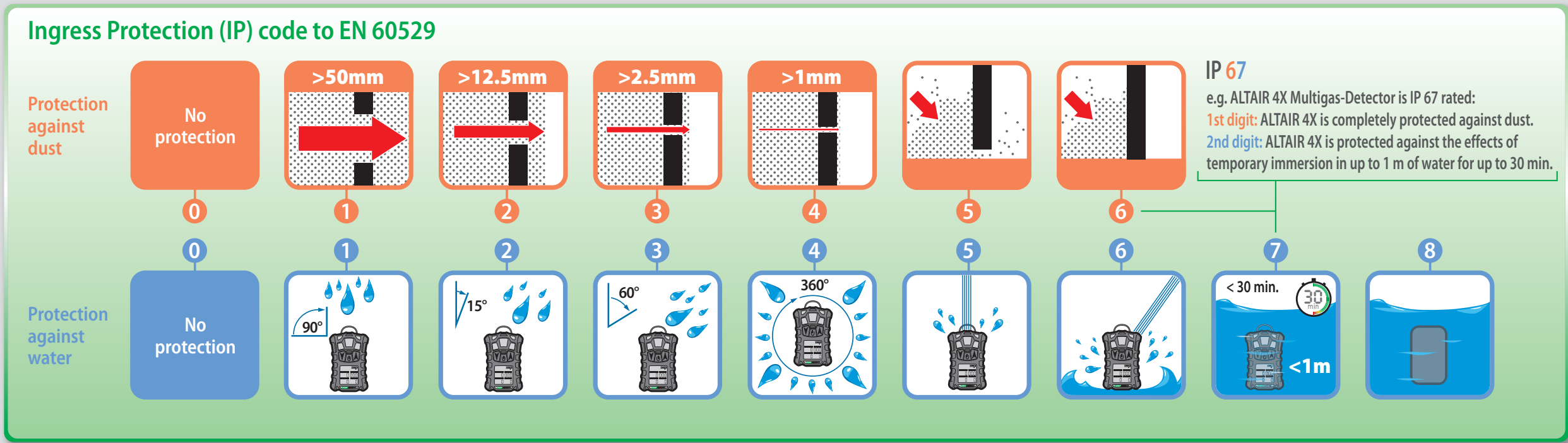
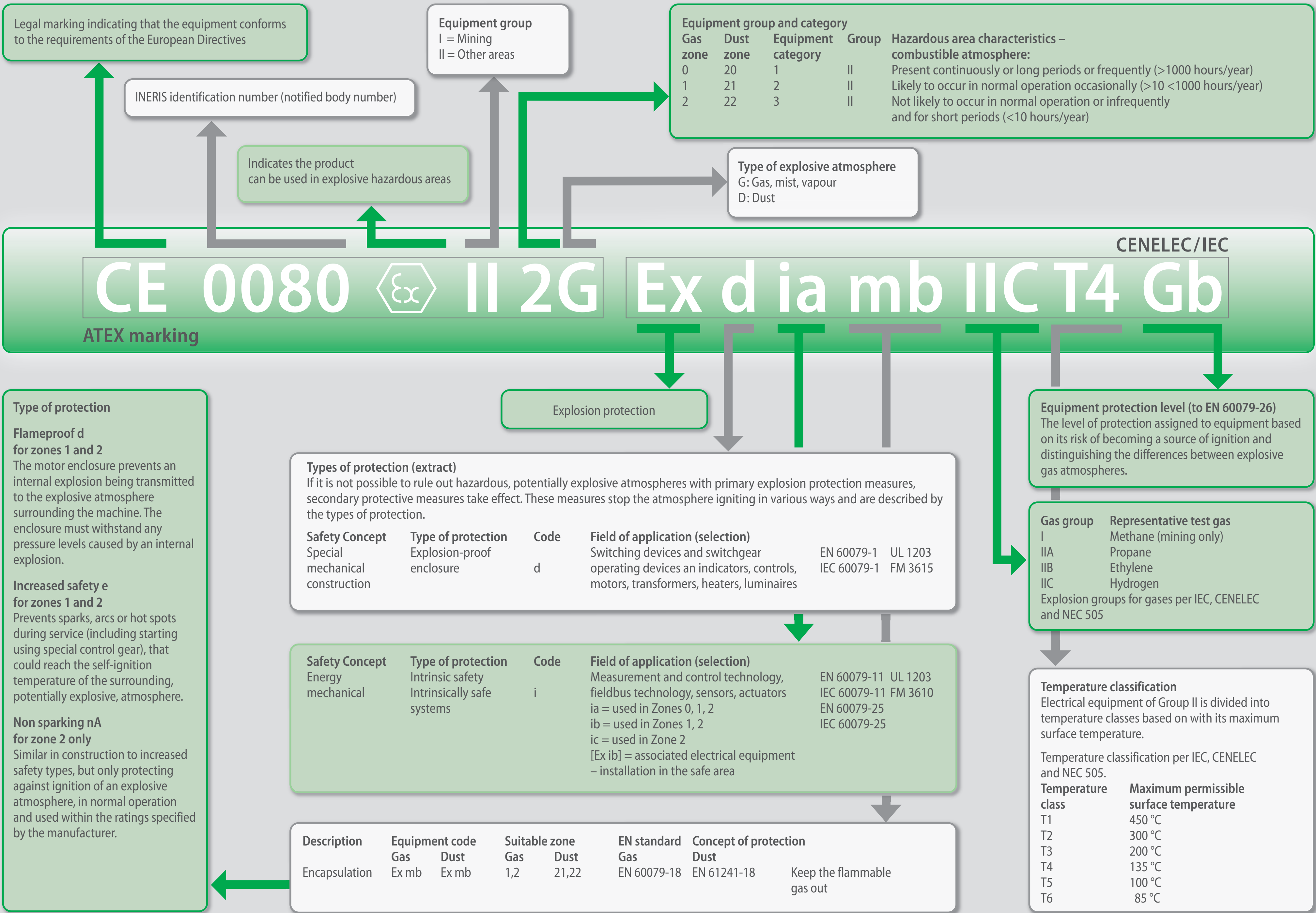


Gas detectors are used to detect potential hazardous in the atmosphere, be they oxygen deficiency, toxic gas build-up or the accumulation of potentially explosive gas. Explosion protection is extremely important when dealing with flammable gases and vapours and this especially applies not only to equipment used in these areas, but also applies to the gas detectors themselves. Since gas detectors are categorised as electrical equipment, they must fulfil the relevant requirements for operating in potentially explosive areas. Within the European Union, this is regulated by using the relevant harmonised European Directives.

ATmosphere EXplosible is French for potentially explosive atmosphere. According to the ATEX manufacturer directive 94/9/EC (ATEX 95) and user directive 1999/92/EC (ATEX 137) the electrical safety of all electronic

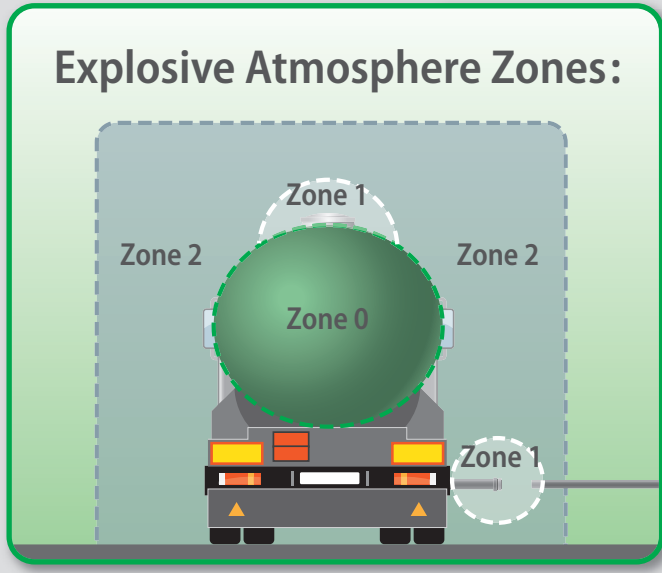
gas detectors and personal monitors used in potentially explosive atmospheres must be tested and marked "ATEX" (EN 60079-0 et seq.). If the gas detector for flammable gases and vapours is used as a safety device "with a measuring function for explosion protection" it must be performance approved by a notified body in addition to the "ATEX" marking. Correspondence with other globally accepted standards (e.g. wheel mark approval) must also be ensured during the construction of the electrical equipment.

At MSA, we work tirelessly to build smarter, better gas detectors which people around the world can rely on.



Performance Approval
According to the ATEX manufacturer directive 94/9/EC and the ATEX user directive 1999/92/EC any gas detection system (detectors and controller) and any personal monitor for flammable gases, if used as safety device to reduce the risk of explosion, has to be performance approved. Performance approval is also required if the oxygen content of the air during inertisation or the concentration of toxic gas needs to be measured. The EC type test certificate must then show compliance according to EN 60079-29-1 and EN 50104 for ATEX and EN 50104 and EN 45544 for oxygen and toxic gases (according to national regulations).

MED Marine Equipment Directive 96/98/EC, or wheel mark, is an authorisation of equipment and products for the marine industry and covers any ship flying a flag of an EEA member state.



Select the appropriate instrument:

	ALTAIR	ALTAIR PRO	ALTAIR 4X	ALTAIR SX (IR)	SIRIUS
Number of sensors	1	1	1-3*	1-5*	1-5
Com-bust	0-100% LEL	0-100 Vol.%	•	•	•
O ₂	•	•	•	•	•
Ammonia (NH ₃)	•	•	•	•	•
Carbon Monoxide (CO)	•	•	•	•	•
Carbon Dioxide (CO ₂)	•	•	•	•	•
Chlorine (Cl ₂)	•	•	•	•	•
Chlorine Dioxide (ClO ₂)	•	•	•	•	•
Hydrogen Cyanide (HCN)	•	•	•	•	•
Hydrogen Sulphide (H ₂ S)	•	•	•	•	•
Nitric Dioxide (NO ₂)	•	•	•	•	•
Nitrogen Oxide (NO)	•	•	•	•	•
Phosphine (PH ₃)	•	•	•	•	•
Sulfur Dioxide (SO ₂)	•	•	•	•	•
Volatile Organic Compounds (VOC)	•	•	•	•	•
Internal Pump	•	•	•	•	•
Alarms (Audible & Visual)	•	•	•	•	•
Vibration Alarm	•	•	•	•	•
MotionAlert	•	•	•	•	•
InstantAlert	•	•	•	•	•
24-hour bump checkmark	•	•	•	•	•
Eventlogging	•	•	•	•	•
Datalogging	•	•	•	•	•
End-of-Sensor Life Indicator	•	•	•	•	•
ALTAIR QuickCheck compatible	•	•	•	•	•
GALAXY GX2 System compatible	•	•	•	•	•

*Dual-Tox sensors available

