

# L'IMPORTANZA DELLE NORME



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# Un'azienda dinamica con grandi idee

SENSITRON S.r.l. è stata fondata nel 1988 con l'obiettivo di diventare il punto internazionale di riferimento per i rilevatori di gas tossici ed infiammabili.

Sensiron Srl è stato il primo costruttore italiano di sistemi rivelazione gas ad ottenere le seguenti certificazioni:

CESI 01 ATEX 086Q Production Quality Assurance Notification

CESI 17 ATEX 003X Explosion proof gas detectors (EN/IEC60079-1)

IECEX CES 17.0011X Explosion proof gas detectors (IEC/IEC60079-1)

CESI 02 ATEX 084 Performance certified detectors (EN60079-29-1)

IMQ 12 ATEX 002X Performance certified control panel MULTISCAN++ (EN 60079-29-1)

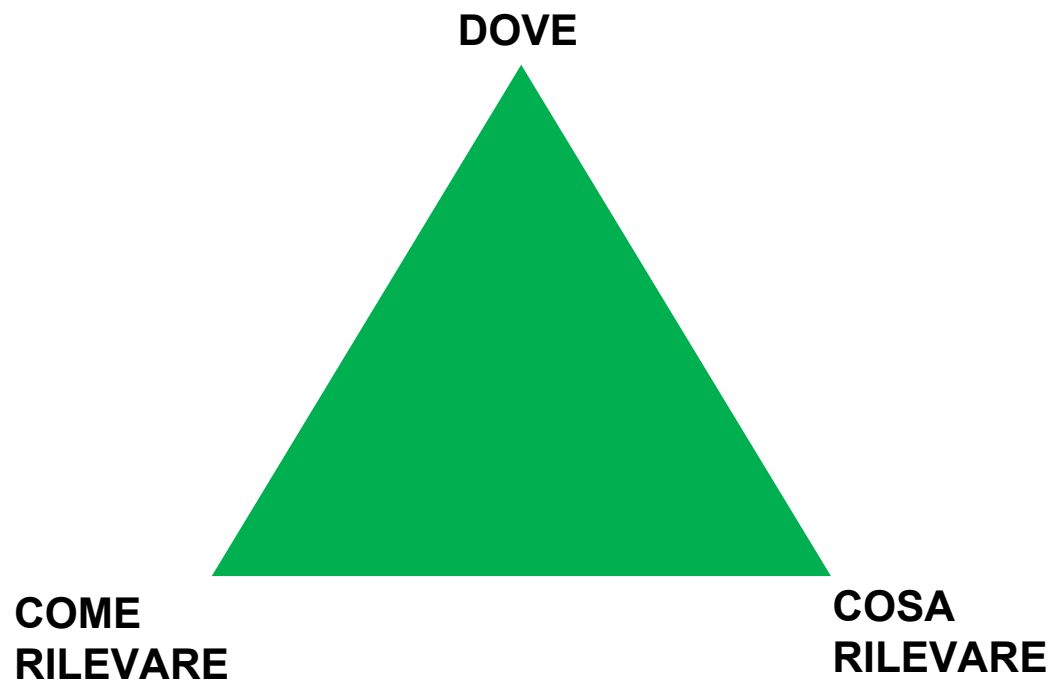
CESI 16 ATEX 046X Intrinsically safe gas detectors (IEC 60079-11)

IECEX CES 17,0010X Intrinsically safe gas detectors (IEC 60079-11)

CESI 14 ATEX 034 Group I Gas detectors for underground and mining

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# **Come scegliere un sistema rivelazione gas**



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# Come scegliere un sistema rivelazione gas

**DOVE**

ESR Electrical Safety Requirments  
(requisiti di sicurezza)



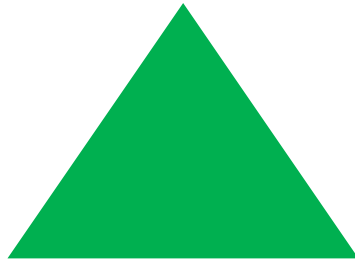
**COME**  
Prestazioni

**COSA**  
Gas infiammabili  
Gas tossici  
Ossigeno  
Gas refrigerante

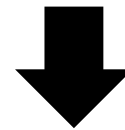
# ESR

## Electrical Safety Requirements (Requisiti essenziali di sicurezza)

DOVE → ESR

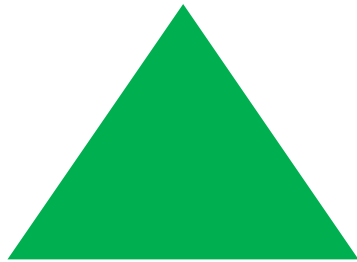


AREA NON PERICOLOSA		AREA PERICOLOSA
RESIDENZIALE	COMMERCIALE ED INDUSTRIA LEGGERA	INDUSTRIALE
IP	IP	IEC 60079-0 -1 -2 -...



ZONA 0 ZONA 1 ZONA 2	CAT.1 CAT.2 CAT.3
GRUPPO I GRUPPO II	
G	GD

# Livello rilevazione e tecnologia



COSA →  
CATEGORIA GAS

TIPO DI GAS	TECNOLOGIA DI RILEVAZIONE	LIVELLO RILEVAZIONE (UNITA' DI MISURA)
INFIAMMABILI	PELL or IR	% LFL
TOSSICI	EC	ppm
OSSIGENO	EC	%VOL
REFRIGERANTE	IR o EC	%LFL or ppm

# Prestazioni richieste

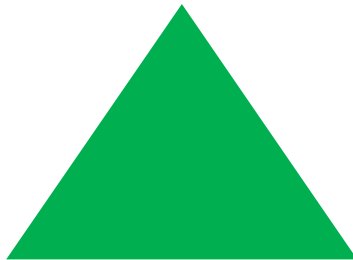


COME →  
PRESTAZIONI

	RESIDENZIALE	COMMERCIALE	INDUSTRIALE
INFIAMMABILE	EN 50194-1 EN 50194-2		IEC-EN 60079-29-1 IEC-EN 60079-29-4
TOSSICO	EN 50291 (CO)	EN 50545-1 (Car parks) EN 50245-2 (Tunnel)	EN 45544-1 EN 50544-2
OSSIGENO			EN 50104
REFRIGERANT		PR EN 50676	

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# Prestazioni richieste (norme comuni)



COME →  
PRESTAZIONI

**EN 50271**  
(mandatory)

**EN 50402**  
(voluntary)

**IEC 61508**  
Part 1-7  
(SIL 1-2-3-4)



APPLICATIONS  GAS TYPE		HAZARDOUS AREA			NON HAZARDOUS AREA		
		UNDERGROUND MINES	SURFACE SITES	SURFACE SITES H2 STATIONARY APPARATUS	BUILDING, CAR PARKS & COMMERCIAL AREAS	RESIDENTIAL	SURFACE SITES H2 STATIONARY APPARATUS
FLAMMABLE GASES	ESSENTIAL SAFETY REQUIREMENTS	IEC / EN 60079-0 IEC / EN 60079-1 etc.	IEC / EN 60079-0 IEC / EN 60079-1 etc.	IEC / EN 60079-0 IEC / EN 60079-1 etc.	IP AND LOCAL STANDARDS	IP 42	IP AND LOCAL STANDARDS
	PERFORMANCE REQUIREMENTS	IEC / EN 60079-29-1 FOR METHANE (MANDATORY FOR ATEX)	IEC / EN 60079-29-1 (MANDATORY FOR ATEX FOR SAFETY DEVICES) (VOLUNTARY IN IEC)	ISO 26142 OR IEC / EN 60079-29-1 (MANDATORY FOR ATEX FOR SAFETY DEVICES) (VOLUNTARY IN IEC)	IEC / EN 60079-29-1 (VOLUNTARY)	EN 50194	ISO 26142 OR IEC / EN 60079-29-1 (MANDATORY FOR ATEX FOR SAFETY DEVICES) (VOLUNTARY IN IEC)
OXYGEN	ESSENTIAL SAFETY REQUIREMENTS	IEC / EN 60079-0 IEC / EN 60079-1 etc.	IEC / EN 60079-0 IEC / EN 60079-1 etc.	N/A	N/A	N/A	N/A
	PERFORMANCE REQUIREMENTS	EN 50104 (VOLUNTARY)	EN 50104 (MANDATORY FOR ATEX IN INERTISATION PLANTS)	N/A	EN 50104 (VOLUNTARY)	N/A	N/A
OTHER TOXIC GASES, CO2, ETC.	ESSENTIAL SAFETY REQUIREMENTS	IEC / EN 60079-0 IEC / EN 60079-1 etc.	IEC / EN 60079-0 IEC / EN 60079-1 etc.	N/A	N/A	IP 42	N/A
	PERFORMANCE REQUIREMENTS	EN 45544-1 EN 45544-2 EN 45544-3	EN 45544-1 EN 45544-2 EN 45544-3	N/A	EN 45544-1 EN 45544-2 EN 45544-3 EN 50545-1 (CAR PARKS)	EN 50291 (CO)	N/A
FOR ALL EQUIPMENT AS PART OF ANY PERFORMANCE TESTING		EN 50271 (SW&DIGITAL) (MANDATORY) EN 50402 (SIL) – (VOLUNTARY)					