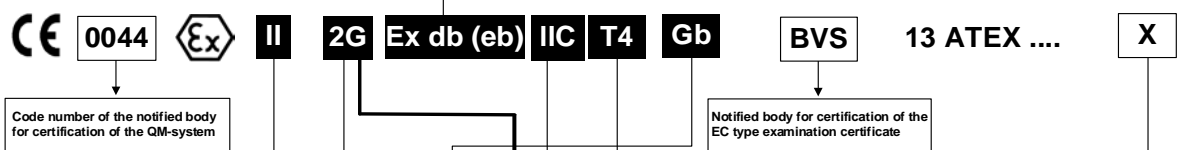




## Explosion safe equipment for gases and vapors to Directive 2014/34/EU



Ignition protection categories	Safety principle	Schematic description	Application	Use in zone	Marking / Norm
General requirements	-	-	All applications	-	EN 60079-0 IEC 60079-0
Pressurized encapsulation d	Transmission of explosion to outside is impossible		DC-motors Terminal boxes	1 or 2	II 2G Ex db IIC T3...T6 Gb  EN 60079-1 IEC 60079-1
Increased safety e	Avoidance of sparks and inadmissible temperatures		Terminal boxes	1 or 2	Ex eb II Gb  EN 60079-7 IEC 60079-7



Conditions in potentially explosive areas					Classification of the gases and vapors						Use of the equipment				
Combustible substances	Occurrence of the combustible substance in the Ex-area	Classification of potentially explosive area	Required marking of the usable equipment			Explosion group	Gases and vapors (Examples)						Conditions	Marking	
			Equipment group	Equipment category	Equipment protection level										
Gases and vapors	Occasional occurrence	Zone 1	II	2G or 1G	Gb oder Ga	IIA	Acetone Ammonia Methane Ethane Propane	Ethyl alcohol Cyclohexan n-Butane	Gasoline Kerosene Heating oils n-Hexane	Acetaldehyde					-
	Likely not to happen, if though only seldom or short term	Zone 2	II	2G or 3G	Gc oder Gb oder Ga	IIB	City gas Acryl nitrile	Ethylene Ethylene oxide	Ethylene glycol Hydrogen sulfide	Ethyl ether					X
						IIC	Hydrogen	Acetylen					Carbon disulfide		U
							T1 ≤ 450 °C    T2 ≤ 300 °C    T3 ≤ 200 °C    T4 ≤ 135 °C    T5 ≤ 100 °C    T6 ≤ 85 °C Temperature classes, maximum allowable surface temperature								

Explosion group IIB includes explosion group IIA  
Explosion group IIC includes explosion group IIB and IIA.

**ATTENTION!**  
Motors of equipment category **3G** are manufactured according to guide line 2014/34/EU on the manufacturer's own responsibility. There is **no** certification issued for these motors by a notified body. The compliance with guide line 2014/34/EU is confirmed by the manufacturer's declaration of conformity.

The information is an excerpt from the valid technical standards and regulations as of today.

Stand 01.12.2020