

ATEX REGULATION



Safety in explosive environments

As of 1st July 2003, the ATEX directive came into force throughout the EEC. This directive became an obligatory requirement for all electrical and mechanical equipment intended for use in dangerous areas. Potentially explosive atmospheres exist where there is a risk of explosion due to mixtures of gas and air, steam and air, dust and air or other flammable combinations typical of petrol vapours. If the electrical or mechanical material must be used in areas where there is an explosive atmosphere, it must be designed and built so as not to create/ to eliminate sources of ignition such as sparks, hot surfaces or static electricity and all sources of combustion able to ignite these mixtures. Risk areas for environments where gas and flammable vapours are present can range from AREA 0 (constant risk of explosion) to AREA 1 (risk of explosion probable) and AREA 2 (low risk and any risk of explosion persists for a short time only).

Atex codification key of Meclube products – “GAS” type of atmosphere

| | | | | | | | | | | |
|---|---|----|---|---|----|---|-----|----------------------------------|----|----|
| | | II | 2 | G | Ex | h | IIB | $T_4 \leq T 135^{\circ}\text{C}$ | Gb | X |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |

1= CE marking

2= Ex marking (specific explosion protection marking)

3= Group of belonging of the equipment: II = other places, not the mine (gas and dust)

4= High level of protection, presence of possible explosive atmosphere – usable in ZONE 1

5= Type of atmosphere – Gas – usable in ZONE 1

6= Marking for CE regulations (regulation of EN 60079 – DIN EN ISO 80079)

7= General marking, mechanical equipment, not electric

8= Typical ethylene gas

9= Temperature range (Gas), maximum superficial temperature $\leq 135^{\circ}\text{C}$

10= Protection level of the equipment usable in “Group II” – high protection level.

11= Make reference to the instruction manual for important additional notes – range of ambient temperature.

Atex codification key of Meclube products – “Dust” type of atmosphere

| | | | | | | | | | |
|---|---|----|---|---|----|---|-------|----------------------------------|----|
| | | II | 2 | D | Ex | h | III C | $T_4 \leq T 135^{\circ}\text{C}$ | Db |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

1= CE marking

2= Ex marking (specific explosion protection marking)

3= Group of belonging of the equipment: II = other places, not the mine (gas and dust)

4= High level of protection, presence of possible explosive atmosphere – usable in ZONE 21

5= Type of atmosphere –Dust – usable in ZONE 21

6= Marking for CE regulations (regulation of EN 60079 – DIN EN ISO 80079)

7= General marking, mechanical equipment, not electric

8= Flammable particles, conductive and non-conductive dust

9= Temperature range (Gas), maximum superficial temperature $\leq 135^{\circ}\text{C}$

10= Protection level of the equipment usable in “Group III”– high protection level.