

Labeling for mechanical and electrical devices

Ignition protection type	
Mechanical (DIN EN ISO 80079-36/-37)	Electric (EN 60079)
h – basic marking (includes ignition protection types constructive safety "c", ignition source monitoring "b" and liquid encapsulation "k")	Gases e – increased safety d – pressure resistant ia, ib, ic – intrinsic safety ma, mb, mc – encapsulation o – oil encapsulation pv, px, py, pz - pressurized encapsulation q – sand encapsulation

Device group

I – Mining operations
(Mine gas and dust)
II – other operations,
no mining operations

Marking in accordance with
Ex standards (standards of
the EN 60079 and DIN EN
ISO 80079 series)



II 2G Ex h IIC T4 Gc

Device category

Gases, mists, vapors

- 1G – Zone 0
- 2G – Zone 1
- 3G – Zone 2

Dusts

- 1D – Zone 20
- 2D – Zone 21
- 3D – Zone 22

Subdivision of the device groups

(Equipment protection level)

Group I – typical gas: Methane

Group II

- IIA – typical gas: Propane
- IIB – typical gas: Ethylene (also suitable for IIA)
- IIC – typical gas: hydrogen (also suitable for IIA + IIB)

Group III

- IIA – flammable suspended solids
- IIB – combustible suspended solids and non-conductive dust
- IIC – combustible airborne particles, non-conductive and conductive dust

Temperature classification

Gases

- T1 – ≤450°C
- T2 – ≤300°C
- T3 – ≤200°C
- T4 – ≤135°C
- T5 – ≤100°C
- T6 – ≤85°C

EPL

Equipment Protection Level

Group I (mine)

- ma – very high
- mb – high

Group II (gas, etc.)

- Ga – very high
- Gb – high
- Gc – increased

Group III

- Da – very high
- Db – high
- Dc – increased

a – corresponds to zone 0/20

b – corresponds to zone 1/21

a – corresponds to zone 2/22