



Explosion protection information

According to ATEX 2014/34/EU, manufacturers are obligated to produce hoists in accordance with the applicable rules, standards and regulations for explosion-protected operating materials, classified by Ex class and identified accordingly.

The customer must specify either a classification or an Ex zone.

When we have received this information, we can present you with a suitable quotation for the hoist you are interested in. Here is an overview of the classification of explosion-protected operating materials, to serve as a guide.

The standards, regulations and directives of the appropriate authority, e.g. chemicals industry associations, regarding the use of equipment in areas at risk of explosion, must be observed by the owner during installation, assembly and operation of **EX-protected hoists**. PLANETA offers hoists for various use cases, which are suitable for the following operating conditions in Ex zones:

- ➔ **Deployment in zones 1, 2, 21 and 22**
- ➔ **Temperature classes up to T4 or 135°C**
- ➔ **For gases in explosion groups IIA, IIB, IIC and dusts**

Explanation of the designation of an Ex classification:

EX II 2 G IIB T4

Explosion protected operating materials Equipment group Equipment category Potentially explosive mixture: dusts or gases Hazard class for gases only Temperature class

Zone classification

Flammable materials	Classification of areas at risk of explosion	Equipment group	Equipment category for Ex atmosphere	Probability
Gases & vapours	Zone 0	II	1G	Constant, long-term or frequent
	Zone 1	II	2G or 1G	Occasional
	Zone 2	II	3G or 2G or 1G	Unlikely
Dust	Zone 20	II	1D	Constant
	Zone 21	II	2D or 1D	Occasional
	Zone 22	II	3D or 2D	Unlikely





Temperature classes:

The max. surface temperature of the operating material must always be less than the ignition temperature of the gas-vapour-air mixture. Operating materials which are classed in higher temperature classes are approved in all areas where lower temperature classes are required.

In areas at risk of explosion due to flammable dusts, the surface temperature may not exceed 2/3 of the ignition temperature of the dust/air mixture in °C. This temperature class information related to PLANETA hoists assumes a maximum ambient temperature between -20°C and +40°C.

Deployability of the operating material	List of gases and vapours					
	Explosion subgroup II for ignition protection type d, i, n	Gases and vapours				
	IIA	Ammonia, methane, ethane, propane	Ethyl alcohol, cyclohexane, n-butane	Benzene gen. jet fuels, n-hexane	Acetaldehyde	
	IIB	Acrylonitrile, city gas	Ethylene, ethylene oxide	Ethylene glycol, hydrogen sulphide	Ethyl ether	
	IIC	Hydrogen	Acetylene Ethin			Carbon disulphide
Temperature class: Classification of gases, vapours and mists acc. to ignition temperature						
	T1 Max. 450 °C	T2 Max. 300 °C	T3 Max. 200 °C	T4 Max. 135°C	T5 Max. 100 °C	T6 Max. 85°C
Deployability of the operating material ----- >T1 ----- >T2 ----- >T3 ----- >T4 ----- >T5 ----- >T6						

Technical Information for the versions

➔ BASIC version is appropriate for use in Ex II 3 G IIB c T3 (Zone 2):

- Fast-moving parts and contact parts treated with special coatings
- Galvanised load and hand chains
- Trolley with cellulose buffer
- Wheels with special coating

➔ MEDIUM version is appropriate for use in Ex II 2 G IIB c T3 (Zone 1):

- Fast-moving parts and contact parts treated with special coatings
- Carrying and load hooks treated with special coating
- Galvanised load and hand chains
- Trolley with cellulose buffer
- Wheels of special material

➔ HIGH version is appropriate for use in Ex II 2 G IIC c T3 (Zone 1):

- Fast-moving parts and contact parts treated with special coatings
- Carrying and load hooks treated with special coating
- NIROSTA load and hand chains
- Trolley with cellulose buffer
- Wheels of special material

➔ In the “HIGH” version, load chains made from NIROSTA special load chain fabrication steel are used, which causes a reduction in the load-bearing capacity of the series chain hoists.

➔ The table below shows that the load-bearing capacities of the “HIGH” version differ from the “BASIC” and “MEDIUM” versions.

➔ However, the hoists themselves are labelled with lower load-bearing capacity on their nameplates, even in the “HIGH” version



Load-bearing capacity in kg on the BASIC / MEDIUM version	TYPE Example Chain block	Chain diameter in mm	Number of load lines	Reduced loadbearing capacity in kg on the HIGH version
250	PREMIUM PRO-EX 0.25	4 x 12	1	250
500	PREMIUM PRO-EX 0.5	5 x 15	1	500
1,000	PREMIUM PRO-EX 1	6 x 18	1	1,000
1,500	PREMIUM PRO-EX 1.5	8 x 24	1	1,250
2,000	PREMIUM PRO-EX 2	8 x 24	1	1,250
3,000	PREMIUM PRO-EX 3	10 x 30	1	2,000
5,000	PREMIUM PRO-EX 5	10 x 30	2	3,200
10,000	PREMIUM PRO-EX 10	10 x 30*	3	6,400

* Grade 100