



## WORKING CONDITION DEFINITION FORM ATEX MATERIAL

### Preamble

As indicated in Directive 1999/92/EC of December 16<sup>th</sup>, 1999, it is the employer's obligation to take "the technical and/or organizational measures appropriate to the type of operation" and more particularly to define the area of use ATEX in which the material will be used/installed.

In order to be able to comply with Directive No. 2014/34/EU of February 26<sup>th</sup>, 2014 commonly known as the ATEX Directive, we ask you to complete the form on the following page allowing you to confirm all of the conditions of use and thus validate our choice of sealing assembly adapted to your working conditions.

### Definition reminder to facilitate the use of the form

#### Type of explosive atmosphere

- G** - Gas : Explosive atmospheres due to the presence of gases, vapors or mists
- D** - Dust: Explosive atmospheres due to the presence of dust

#### Area of use

- Area 0** : Explosive atmosphere is present permanently, for long periods or frequently.
- Area 1** : Explosive atmosphere is likely to occur occasionally in normal operation.
- Area 2** : Explosive atmosphere is not likely to occur in normal operation or, if it does occur, it is only short-lived.

The above zones are applicable in explosive gas atmospheres, for dust their corollaries are zones **20, 21, 22**.

#### Temperature class

Our risk analysis revealed that the temperature of the transported fluid is increased when passing through the pump and requires us to limit the temperatures of the transported fluids as follows:

Class temperature	Maximum surface temperature	Limit temperature of the pumped liquid (°C)
T1	≤ 450	350*
T2	≤ 300	280
T3	≤ 200	180
T4	≤ 135	120
T5	≤ 100	85

#### Device group

**Group I** devices are intended for use in gassy mines: our pumps are not suitable under these conditions.

**Group II** devices are intended for use in locations where there is an explosive gas atmosphere, other than gassy mines with the following subdivisions:

Group	Reference gas	Characteristic of the gas	
		IEMS (mm)	EMI (mJ)
I	Methane	1,14	0,28
IIA	Propane	0,92	0,25
IIB	Ethylene	0,65	0,07
IIC	Hydrogen/Acetylene	0,37	0,011/0,017

With the following definitions:  
*IEMS: Maximum Experimental Safety Interstice*  
*EMI: Minimum Ignition Energy*

**Group III** devices are intended for use in locations where there is a dusty explosive atmosphere, other than gassy mines:

Group	Reference gas	Characteristic of the gas	
		IEMS (mm)	EMI (mJ)
I	Methane	1,14	0,28
IIA	Propane	0,92	0,25
IIB	Ethylene	0,65	0,07
IIC	Hydrogen/Acetylene	0,37	0,011/0,017

#### Working conditions

The EN ISO 80079-36: 2016 standard defined for the device, which is designed to be used within the limits of a normal range:

- Ambient temperatures between -20 ° C and +40 ° C
- Pressure from 80 kPa (0.8 bar) to 110 kPa (1.1 bar)
- Air with normal oxygen content, typically 21% v/v

Otherwise, we must be informed of the specific conditions and validate whether our equipment can be used under these new conditions.

#### Fluid Handled

The nature of the fluid handled, and in particular, its physicochemical characteristics and its flammability under working conditions have an influence on the behavior of the various components of the pump and we therefore need to know the exact nature to avoid any risk and/or the creation of a potentially explosive area.

Order / offer number: \_\_\_\_\_

Pump Identification: \_\_\_\_\_

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In order to be able to comply with Directive No. 2014/34 / EU of February 26<sup>th</sup>, 2014 commonly known as the ATEX Directive, we ask you to complete the following form to confirm all of the conditions of use and thus validate our choice of assembly seal adapted to your working conditions.

### Working conditions

External environment in which the device is used

Temperature from -20 to + 40 ° C

Yes  No (If not, please specify T°C min/max expected: \_\_\_\_\_)

Pressure from 0.8 to 1.1 bara

Yes  No (If not, please specify the expected Pressure: \_\_\_\_\_)

Oxygen concentration # 21% v/v

Yes  No (If not, please specify the expected Concentration: \_\_\_\_\_)

Presence of a heating jacket

Yes  No

If there is a heating jacket, please specify:

The temperature of the heat transfer fluid: \_\_\_\_\_

The nature of the heat transfer fluid: \_\_\_\_\_

Cleaning in place process (CIP)

Yes  No

If a CIP procedure is used, please specify:

The temperature of the fluid (s) used: \_\_\_\_\_

The nature of the fluid (s) used: \_\_\_\_\_

### Type d'atmosphère explosible

**G** - Gas

**D** - Dust

Non

Group (G) :  IIA  IIB  IIC

Group (D) :  IIIA  IIIB  IIIC

For subdivisions (group) according to the characteristics of the gaseous or dusty explosive atmosphere for which they are intended, please refer to the previous page for more explanations.

### Area of use

Area 1

Area 21

Area 2

Area 22

Our devices are not certified for use in Zone 0 or Zone 20 or for use in gassy mines.

### Fluid handled

Exact nature: \_\_\_\_\_

Pump inlet temperature: \_\_\_\_\_ °C

Flammability under conditions of use:  Yes  No

### Classe de température

Requested: \_\_\_\_\_

As reminder, our risk analysis revealed that the temperature of the fluid conveyed is increased when passing through the pump and requires us to limit the temperatures of the fluids conveyed according to the table below:

Class temperature	Maximum surface temperature	Limit temperature of the pumped liquid (°C)
T1	≤ 450	350*
T2	≤ 300	280
T3	≤ 200	180
T4	≤ 135	120
T5	≤ 100	85



Name of the responsible \_\_\_\_\_

Date \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Company signature and stamp