



**Safety guidelines for use of the vibrating level switches CV600StEx  
in the presence of combustible dust  
(Type CV\*\* is direct equivalent of DP\*\* and vice versa)**

**General:**

The vibrating level switches CV600StEx can be used in the presence of combustible dust according to ATEX directive 94/9/EC: equipment group II, category 1 / 2 D.

**Marking of approved instruments according to directive 94/9/EC:**

On the enclosure of the vibrating level switches CV600StEx is a nameplate showing the following data:

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	<b>CV600-StEx</b>	Power Supply: 20...250V AC/DC	
0032	Ser.No.: xxxxxxStEx	Power Consumption: 3 VA	
	II 1/2D T95°C IP66 IExU03ATEX1033		
Umgebungstemp. Gehäuse (Zone 21): -20..+60°C Prozesstemp. Sonde (Zone 20): -20..+80°C			

e.g:  
CV600StEx with wide range power supply, standard unit, (no high temp)  
Type CV\*\*0 is directly equivalent of DP\*\*0 and vice versa

**Categories and allowed Zones of the components:**

Component	Category	can be used in Zone
Probe	1 D	20, 21 or 22
Enclosure with PCB	2 D	21 or 22

**Protection according to EN 50281-1-1:**

- protection by dust-tight enclosure IP6X
- limited surface temperatures of the apparatus

**Maximum surface temperatures:**

Zone	max. permissible amb. temperature	max. surface temperature at failure	heat up due to failure
Zone 20	80°C for standard units 150°C for high temperature (= process temp.)	80°C for standard 150°C for high temp	0 K 0 K 0 K
Zone 21	60°C	95°C	+35 K

The 35K maximum heat up of the enclosure surface results on 25K heat up of the electronics at failure and additional 10K due to heat conduction via the probe in cases where the process temperature is higher than 60°C.

**Special guidelines for installation, set up and maintenance of apparatus in the presence of combustible dust:**

- installation, set up and maintenance must be performed in conjunction with the instruction manual and by qualified technical personnel only.
- Local governing regulations must be followed.
- The requirements of DIN EN 50281-1-2 regarding temperatures and dust deposits must be followed.
- The enclosure must only be opened when power supply on all wires has been switched off.
- Before opening the enclosure dust deposits must be removed and dust clouds must be avoided.
- In order to maintain the protection by dust-tight enclosure it is essential that assembling of the instruments must be performed according to the descriptions in the instruction manual. Special care must be taken that all sealings and sealing planes are not to be damaged and that all sealings sit in their appropriate position. All screwings must be fastened by applying the torques according to the instruction manual.