

Explosion protection for fans – Questionnaire

Replacement for RFR0201-01

Customer/operation company:

Person in charge:

Date:

Signature:

2. Fans handling inflammable dust and gas/air/dust-mixtures

2.1 Conveyance of inflammable dusts and dust/air-mixture (in the fan inside)

Zone 21/Category 2D	dust group	IIIA	IIIB	IIIC
Zone 22/Category 3D				
non-explosive zone				

handled gas, contents	:	when relevant, details on separate sheet
ignition temperature (cloud of dust)	:	°C (*)
glow temperature (layer of dust)	:	°C (*)
minimum inlet temperature	:	°C
maximum inlet temperature	:	°C
maximum inlet pressure (pressure of system)	:	daPa
maximum pressure increase	:	daPa
formation of ferritic oxidation (rust)		
formation of sticking material/moisture		
formation of abrasion/wear and tear		

(*) Reference work for ignition and glow temperatures of dust: e.g. GESTIS-STAU-EX
(<https://staubex.ifa.dguv.de>)

2.2 Installation of fan in

Zone 21/Category 2D	dust group	IIIA	IIIB	IIIC
Zone 22/Category 3D				
non-explosive atmosphere				

ambience, contents	:	when relevant, details on separate sheet
ignition temperature (cloud of dust)	:	°C (*)
glow temperature (layer of dust)	:	°C (*)

Remark: The categories for handled gas and the surrounding atmosphere must not differ in more than one level from each other (DIN EN 14986).

2.3 Motor design for installation in zone 21 and zone 22 according to IEC/EN 60079-10-2

Zone 21/Category 2D	all types of dust (IIIA/IIIB/IIIC)	Ex tb IIIC
Zone 22/Category 3D	electrical conductive dust	Ex tc IIIC
Zone 22/Category 3D	electrical non-conductive dust	Ex tc IIIB
	flammable fibrous material	Ex tc IIIA

2.4 Type of starting

direct starting (triangle - Δ or star - Y)
star-delta-starting (Y/Δ)
soft start-up
frequency converter starting