

Explosion protection for fans – Questionnaire

Replacement for RKU0200-01

Customer/operating company:

Person in charge:

Date:

Signature:

1. Fans handling inflammable gas, vapour or mist

1.1 Conveyance of inflammable gas, vapour or mist (in the fan inside)

Zone 1/Category 2G gas explosion group IIA IIB IIC (H₂)

Zone 2/Category 3G

non-explosive zone

handled gas, contents : when relevant, details on separate sheet
 in the case of hydrogen (H₂) proportions : % (ideal gas)
 inertisation with (inert gas) : indicate gas type and proportion in %
 ignition point : °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 temperatures of gases: e.g. Chemsafe (<https://www.chemsafe.ptb.de>)

1.2 Installation of fan in

Zone 1/Category 2G gas explosion group IIA IIB IIC (H₂)

Zone 2/Category 3G

non-explosive atmosphere

ambience, contents : when relevant, details on separate sheet
 in the case of hydrogen (H₂) proportions : % (ideal gas)
 ignition point : °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).

1.3 Motor design for installation in zone 1 category 2G according to IEC/EN 60079-10-1

increased safety Ex eb (only T3) IIA IIB IICflame-proof Ex db eb IIA IIB IIC

(terminal box increased safety)

flame-proof Ex db IIA IIB IIC

(terminal box flame-proof tool)

temperature class: T3 or T4

1.4 Motor design for installation in zone 2 category 3G according to IEC/EN 60079-10-1

increased safety Ex ec (only T3) IIA IIB IIC

temperature class: T3

1.5 Type of starting

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

*installation in zone 1:
inapplicable to motors of type of
protection "increased safety"*