

Additional sheet to the document G45200.0001 (Instruction Manual of the ED 701) for ED701 with EEx explosion safety

Important: Transmitters with EEx safety must be grounded only once. The cable electromagnetic shielding will be grounded on the EEX side (i.e. on the electrical connection side).

Type	Group	Category	Type of protection	Subgroup	U _i V	I _i mA	P _i W	L _i mH	C _i nF	R' Ω/km	L' mH/km	C' nF/km
ED 701/x21.xxx.xxx.xx	II	1G 1/2G 2G 1D	EEx ia	II C	28	100	1.5	0.1	1	@ 800 Hz		
ED 701/x24.xxx.xxx.xx	II	1G 1/2G 2G 1D	EEx ia	II C	28	100	1.5	0.1	1	@ 800 Hz		

Temperature data for the ED 701 with the marking II 1G		
Temperature classes	T°amb Zone 0	T°med Zone 0
T6	-10..+30°C	-20..+60°C
T5	-10..+40°C	-20..+60°C
T4	-10..+60°C	-20..+60°C

The EN 60079-14 standard (Electrical equipment for use in explosive atmospheres) has to be considered for the installation. In flammable dusts atmosphere the EN 50281-1-2 standard must be respected.

By mounting a transmitter in the zones 20, 21 or 22 you have to consider the medium temperature when the medium temperature go over the surface temperature of the transmitter.

Temperature data for the ED 701 with the marking II 1/2G		
Temperature classes	T°amb Zone 1	T°med Zone 0
T6	-10..+45°C	-20..+60°C
T5	-10..+60°C	-20..+60°C
T4	-10..+95°C (Tmed ≤125°C)	-20..+60°C

The transmitters must be powered by an adequate EEx power supply or isolated through a Zener barrier.

In the ED701 executions of the pressure transmitter with a Fischer plug (Position 4 of the ordering code ="2") and with a DIN 41524 plug (Position 4="3") the intrinsically safe circuit is connected with earth potential for safety reasons. Potential compensation has to exist in the complete course of erection of the intrinsically safe circuits.

Temperature data for the ED 701 with the marking II 2G			
Temp. classes	T°amb Zone 1	T°med Zone 1	ED701 Execution
T6	-10..+45°C	-30..+85 °C	No cooling neck
T5	-10..+60°C	-30..+100 °C	No cooling neck
T4	-10..+95°C (Tmed ≤125°C)	-30..+125 °C	No cooling neck
	-10..+80°C (Tmed >125°C)	-30..+135 °C	With cooling neck
T3	-10..+80°C (Tmed ≤150°C)	-30..+150 °C	With cooling neck
	-10..+60°C (Tmed >150°C)	-30..+200 °C	
T2	-10..+40°C	-30..+300 °C	With cooling neck

Compatibility with medium:

The pieces getting in contact with the medium are made of stainless steel of the group A4 according to the ISO 3506 standard (Pressure connection and diaphragm made of 1.4435)

Temperature data for the ED 701 with the marking II 1D, Zones 20, 21 and 22	
Max. surface temperature	Max. allowed temperature T°amb. / T°med.
95 °C	80 °C

Pressure transmitters of the category 1G:

The installation of ED701 pressure transmitters in the zone 0 is only authorized at ambient atmosphere, according to the EN 50284 standard:

Temperature -20°C to +60°C
Pressure 0.8 bar to 1.1 bar

A danger of ignition through an electrostatic discharge exists when plastics pieces are used, what is the case with a cable connection execution of the ED701. The user has to check if this is authorized for his application.

The pressure transmitters ED701 comply with
EC Type Examination Certificate TÜV 03 ATEX 2143X

Attention sensitive diaphragm

