

Zener barriers



Zener Barriers or intrinsic* safety barriers, is an accessory to be connected to the Flygt range of level sensors: LS100, LSU100, LTU701 and ENM-10 and a Flygt pump controller. It serves as a barrier between the hazardous area where the sensor is found and the safe area where the pump controller is found.

The Flygt LSU 100 has intrinsic safety approval according to CENELEC EEx ia IIC T4, T6, the Flygt LS100 has EX/Intrinsic safety approval according to CENELEC EEx ia IIB T4 and Flygt LTU701 has intrinsic safety approval according to EN 50014: 1997 + A1: 1999 + A2: 1999, EN 50020: 2002, EN 50284: 1999, II 1 G EEx ia IIC T4 Ta:-20–80° C. This means they may be

mounted in a hazardous area provided that it is supplied from a protected power supply. It is the responsibility of the user to ensure that suitable intrinsically safe barriers are installed. See list below.

Note!

- Only EX-approved products can be used in hazardous areas. The power supply must have a linear resistive output characteristic.
- The transmitter shall not be subjected to an explosive atmosphere with pressure exceeding 1.1 bar.
- Installations in EX-applications must be done in accordance with local rules and regulations.
- Personnel must know about the risks of electric voltage/current, and the chemical and physical characteristics of the gas or vapour present in hazardous areas.



*Intrinsically safe equipment is defined as "equipment and wiring which is incapable of releasing sufficient electrical or thermal energy under normal or abnormal conditions to cause ignition of a specific hazardous atmospheric mixture in its most easily ignited concentration." (ISA-RP12.6) This is achieved by limiting the amount of power available to the electrical equipment in the hazardous area to a level below that which will ignite the gases.

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ZENERBARRIÄR, (för ENM-10)
Galvaniskt skilda in/ut signaler.

ZENERBARRIER, (for ENM-10)
Galvanic insulated in/out signal.

Teknisk information

Galvaniskt isolerad mellan in och utgång
 Växlande reläkontakts utgång, 2 kanal.
 Matningsspänning=120-230 V 48-62 Hz
 Spänning ingång: U = 8,2V
 Max. tillåten extern kapacitans: Ca = 16,2 µF
 Max. tillåten extern induktans : La = 230 mH
 Ingångs resistans : R. = 1000 Ω

Technical information

Galvanic insulated between in and output
 Changeover relay, 2 channel
 Supply Voltage: 120-230 V 48-62 Hz
 Voltage input: U = 8,2V
 Max. Permissible external capacity : Ca = 16,2 µF
 Max. Permissible external inductance: La = 230 mH
 Input resistance : R = 1000 Ω

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Exempel på en zenerbarriär
9170/20-12-21



Example of zenerbarrier
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Kretsschema

Circuit diagram

