GEORGIN

Safety for Industrial Process

Physelec Family

bzg

Zener Barrier

Characteristics*

- Zener Barrier is designed to limit energy which may appear in hazardous area
- Simple or double models
- 13mm tightness with 1 or 2 channels
- Installation in safe or hazardous (Zone2) area ATEX and IECEx certifications
- Certification for a Safety Instrumented System (SIL2 or SIL3)
- Removable label holder on the front
- Barrier / DIN-rail isolator
- Current flow signaling Led on the front
- 100% Made in France product

** according to models*

SIL APPROVED

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ATEX products interfacing

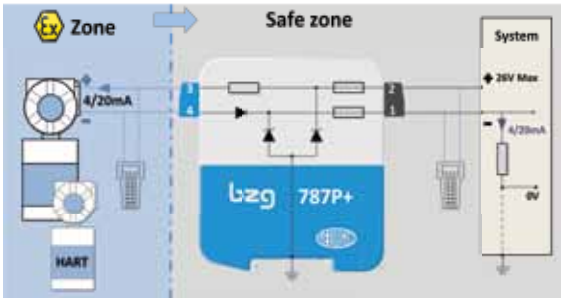
- **Location of the equipment:** Surface industries
- **Method of protection:** Intrinsic safety «Ex ia» and Ex nA [ia] safety
- **Type of equipment:** Associated equipment which must be installed in the safe area or in zone 2 in an IP54 housing (refer to the instruction manual)
- **Suitable to interface** category 1, 2 or 3 equipment installed in:
  - Zone 0, 1 or 2 for gas of group IIA, IIB or IIC (according to EN/IEC 60079-0)
  - Zone 20, 21 or 22 for dust of group IIIA, IIIB or IIIC (according to EN/IEC 60079-0)
- **EC type Examination certificate number**: INERIS 11 ATEX 0024 X
  IECEx conformity certificate: INE 11.0009X
- **ATEX/IECEx Classification:**
  II (1) GD [Ex ia Ga] IIC or [Ex ia Ga] IIB or [Ex iaD Da] IIIC
  II 3 (1) G Ex nA [ia Ga] IIC T4 Gc
  II 3 (1) G Ex nA [ia Ga] IIB T4 Gc

Application examples

- **Analog input: BZG2728+ / BZG2728L+**
  Two 4..20mA transmitters connected with a Zener barrier with ground referenced mounting
  Compatible with HART protocol smart transmitters
- **Digital input: BZG789+**
  Contact interfacing with floating potential mounting
- **Analog output: BZG787P+ / BZG787LP+**
  Valve positionner or 4..20mA display interfacing with floating potential mounting diode return.
- **Digital output: BZG715+ / BZG715P+**
  12V system supply with ground referenced mounting.
- **Temperature: BZG756ac**
  RTD100 with floating potential mounting.
- **Special applications:** Gauge bridge supply (**BZG761**), compensation (**BZG764**) and output (**BZG764**) with floating potential mounting

In compliance with the 1999-92 CE directive, the system safety conformity must be proved by the corresponding loop calculation validation.

Zener barrier principle



A Zener barrier is designed to limit energy that may appear in hazardous area whatever the type of connection made before the barrier.

A barrier is composed of resistances to limit current, of Zener diodes to limit voltage, and of fuse to secure these components.

Interfacing with a Zener barrier differs from other modes as there is no galvanic insulation: cables that pass in hazardous area have common features with those of the safe area. This implies a little resistive and equipotential ground mounting of the barrier.

More details on www.georgin.com

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