### Hazardous (Classified) Location

- **Class I / Division 1, 2 / Groups ABCD**
- **Class I / Zone 0 / E**
- **Class II / Division 1, 2 / Groups EFG**
- **Class III**

RID14 with electronic insert for Profibus PA/Foundation Fieldbus

#### PISCO Concept

The PISCO Concept allows interconnection of intrinsically safe apparatus to associated apparatus not specifically examined in such combination.

- The criteria for interconnection is that the voltage (Uᵢ or Vmax), the current (Iᵢ or Imax) and the power (Pᵢ or Pmax) of each apparatus (other than the termination) connected to the fieldbus must be less than or equal to 5 nA and 10 µJ respectively.
- In each segment only one active device, normally the associated apparatus is allowed to provide the necessary energy for the fieldbus system.

#### Nonhazardous Locations

**FISCO Concept**

- The FISCO Concept allows interconnection of intrinsically safe apparatus to associated apparatus not specifically examined in such combination.

- The criteria for interconnection is that the voltage (Uᵢ or Vmax), the current (Iᵢ or Imax) and the power (Pᵢ or Pmax) which intrinsically safe apparatus can receive and remain intrinsically safe, considering faults, must be equal or greater than the voltage (Uᵢ or Vᵢ or Vct), the current (Iᵢ or Isc or Ict) and the power (Pᵢ or Pmax) levels which can be delivered by the associated apparatus, considering faults and applicable factors. In addition, the maximum unproctected capacitance (Ci) and inductance (Li) of each apparatus connected to the fieldbus must be less than or equal to 5 nA and 10 µJ respectively.

#### Installation Notes RID14

- FM Approved Apparatus must be installed in accordance with manufacturer instructions.
- Install per National Electrical Code (NFPA 70).
- Use supply wires suitable for 5°C above surroundings.
- Warning: Substitution of components may impair intrinsic safety or suitability for Class I, Division 2.

**Temperature range**

- T₄: -40°C ... +80°C
- T₅: -40°C ... +70°C
- T₆: -40°C ... +55°C

**DUST IGNITION PROOF**

- DIP Class II, III / Div. 1 / Groups EFG
- A dust tight seal must be used for conduit entries when the field indicator is used in a Class II or Class III location.

**INTRINSICALLY SAFE**

- IS Class I / Div. 1 / Groups ABCD
- FM approved associated apparatus must meet the following requirements:
  - Uᵢ or Vᵢ or Vct ≤ Uᵢ (Vmax) and Io or Isc or Ict ≤ Iᵢ (Imax) and Po or Pmax ≤ Pᵢ (Pmax)
  - The maximum non-hazardous area voltage must not exceed 250 V
  - The installation should be in accordance with the National Electrical Code (ANSI/NFPA 70) and ANSI/ISA RP 12.6.01(except chapter 5)
  - Be aware of multiple earthing of screen. The screen must be connected in accordance with National Electrical Code.
  - The polarity for connecting + and - is of no importance due to an internal rectifier.

**RID14**

- RID14 is suitable for the connection to a Profibus PA/Foundation Fieldbus system according to Entity- or FISCO Concept

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**Table:**

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**Drawing Information:**

- **Title:** CONTROL DRAWING FM IS/NI/DIP

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**Refer to protection notice ISO 16016**

**ISO 2768-mH-E**

**ISO 13715**

**ISO 2768-mH-E**

**ISO 16016**

**ISO 2768-mH-E**

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**Series:**

Endress + Hauser Wetzer GmbH+Co. KG

Nesselwang / Germany