**Installation Notes RIA14**

- FM Approved Apparatus must be installed in accordance with manufacturer’s instructions.
- Use supply wires suitable for 5°C above surroundings.
- Warning: Substitution of components may impair intrinsic safety or suitability for Class I, Division 2.

**EXPLOSION PROOF**
- Install per National Electrical Code (NFPA 70)
- Seal all conduits within 18 inches.
- All conduits must be assembled with a minimum of five full threads engagement.
- Temperature sensor assembly must be FM approved for appropriate area classification.
- Class II use a dust tight seal.
- Keep tight when circuits alive
- U ≤ 35 V DC

**DUST IGNITION PROOF**
- Class I / Division 1 / Groups ABCD
- Class II, III / Division 1 / Groups EFG

**NONINCENDIVE**
- Depending on location install per National Electrical Code (NEC) using wiring methods described in article 500 through article 510.
- Intrinsic safety barrier not required. Vmax ≤ 35 V DC.
- Warning: Do not disconnect equipment unless power has been switched off or the area is known to be non hazardous.
- Nonincendive field wiring installation

The Nonincendive Field Wiring Circuit Concept allows interconnection of Nonincendive Field Wiring Apparatus with Associated Nonincendive Field Wiring Apparatus or Associated Apparatus not specifically examined in combination as a system using any of the wiring methods permitted for unclassified locations.

Nonincendive Field Wiring parameters are as follows:

**Active Configuration Connection requirements:**
- (+ and -) terminals

The RIA14 with respect to the supply device:
- Vmax of RIA ≥ Vmax of the Associated Nonincendive Field Wiring Apparatus
- Imax of RIA ≥ Isc Not relevant
- Pi of RIA ≥ Po of the Associated Nonincendive Field Wiring Apparatus

Li of RIA + Li of Nonincendive Field Wiring Apparatus

For these current controlled circuits, the parameter Imax is not required and need not to be aligned with parameter Isc and I of the Associated Nonincendive Field Wiring Apparatus or Associated Apparatus.

**Functional ratings**
- These ratings do not supersede Hazardous Location values
- Usins ≤ 35 DC
- Ioins ≤ 4 to 20 mA

**Temperature range**
- T4 -40°C ... +80°C
- T5 -40°C ... +70°C
- T6 -40°C ... +55°C

**Volume (mm³)**
- 100

**Open Collector**
- Terminal 2 and 3
- Connecting a active current source
- e.g. a sensor with it's own power supply and active current output

**Passive Configuration**
- Terminal 2 and 3
- Connecting a passive current source
- e.g. 2-wire transmitter with additional loop power supply

**NONINCENDIVE, FIELD WIRING PARAMETERS**

<table>
<thead>
<tr>
<th>Signal Input</th>
<th>Vmax</th>
<th>Imax</th>
<th>Pi</th>
<th>Ci</th>
<th>Li</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terminals</td>
<td>(V)</td>
<td>(mA)</td>
<td>(W)</td>
<td>(µF)</td>
<td>(mH)</td>
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<tr>
<td>Active (+ and -)</td>
<td>35</td>
<td>200</td>
<td>1.75</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Passive (+, 1, and -)</td>
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<td>200</td>
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<td>0</td>
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<tr>
<td>Open Collector 2 and 3</td>
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<td>100</td>
<td>0.875</td>
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</tr>
</tbody>
</table>

**Project Information**

- Endress + Hauser Weitzel GmbH + Co. KG
- Nesselwang / Germany

**REFERENCES**

1. ISO 16016
2. ISO 13715
3. ISO 2768-mh-E