Safety Instructions

Active barrier

RN221N

JPN: [Ex ia] IIC

Document: XA01960K
Safety instructions for electrical apparatus for explosion-hazardous areas → 3
Active barrier

RN221N

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Associated documentation
- Operating instructions: KA00124R/09/
- Operating instructions with HART® diagnosis: BA00202R/09/

Supplementary Documentation
The Explosion-protection brochure is available:
In the download area of the Endress+Hauser website:
www.endress.com -> Downloads -> "Brochures and catalogs" -> Text Search: CP00021Z

Manufacturer address
Endress+Hauser Wetzer GmbH + Co KG
Obere Wank 1
D-87484 Nesselwang
Germany
Phone: +49 (0)8361 308 0

Manufacturer´s certificates
JPN certificate of conformity
Certificate number: CSAUK 19JPN053X
Affixing the certificate number certifies conformity with the following standards (depending on the device version):
JNIOSH-TR46-1:2015
JNIOSH-TR46-6:2015
Safety instructions

Explosive hazardous area zone 0, 1, 2  \[\text{EX}\] Non-hazardous area

Safety instructions: Installation
- Install the device according to the manufacturer's instructions and any other valid standards and regulations.
- The unit is an associated electrical apparatus and can only be installed outside the hazardous area.
- The unit must be installed in such a way that a minimum ingress protection of IP 20 is achieved.
- When installing the unit care must be taken that there must be a spacing of at least 50 mm (zone radius) to the intrinsically safe terminals.

Electrical connection data

<table>
<thead>
<tr>
<th>RN221N</th>
<th>[Ex ia] IIIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply set</td>
<td>L/L+ N/L</td>
</tr>
<tr>
<td>Ground cable</td>
<td>PE</td>
</tr>
<tr>
<td>Loop power (intrinsically safe)</td>
<td>I+ I-</td>
</tr>
<tr>
<td></td>
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<tr>
<td><strong>RN221N</strong></td>
<td><strong>[Ex ia] IIC</strong></td>
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<td>------------</td>
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<tr>
<td>Internal capacitance</td>
<td>$C_i$ = negligibly small</td>
</tr>
<tr>
<td>Internal inductance</td>
<td>$L_i \approx 24 , \mu H$</td>
</tr>
<tr>
<td>Max. connection values</td>
<td>Ex ia IIC $C_o \leq 86 , nF$ $L_o \leq 5.2 , mH$</td>
</tr>
<tr>
<td></td>
<td>Ex ia IIB $C_o \leq 683 , nF$ $L_o \leq 18.9 , mH$</td>
</tr>
<tr>
<td>Output</td>
<td>O+ O-</td>
</tr>
<tr>
<td>(HART® communication)</td>
<td>4 to 20 mA</td>
</tr>
<tr>
<td></td>
<td>O+H</td>
</tr>
<tr>
<td>Temperature range</td>
<td>$T_a = -20$ to $+50$ °C</td>
</tr>
</tbody>
</table>