SIL DECLARATION OF CONFORMITY

Manufacturer: ABB Automation Products GmbH
Address: Borsigstraße 2 – D-63755 Alzenau
Product name: Temperature Transmitter
TH02, TH02-EX, TH102, TH102-EX, TH202, TH202-EX

Functional safety according to IEC 61508 / IEC 61511

We as the manufacturer declare that the a.m. products are suitable for the use in a safety related application up to SIL 2 according to IEC 61511-1, provided that the attached safety instructions are observed. The assessment of the safety critical and dangerous random errors results, in case of an annual function test, in the following parameters:

SIL (Safety integrity level): 2
Type: B
HFT (Hardware failure tolerance): 0\(^1\) (one-channel application)

<table>
<thead>
<tr>
<th>Transmitter Type</th>
<th>Measuring Range</th>
<th>SFF</th>
<th>PFDav</th>
<th>$A_{dd} + A_{a}$</th>
<th>$A_{du}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>TH02/102/202, TH02/102/202-EX</td>
<td>according to IEC751, according to IEC584</td>
<td>75 %</td>
<td>6,60 * 10(^{-4})</td>
<td>471 FIT</td>
<td>151 FIT</td>
</tr>
<tr>
<td>TH02/102/202, TH02/102/202-EX with Thermocouple low stress</td>
<td>according to IEC584</td>
<td>92 %</td>
<td>1,76 * 10(^{-3})</td>
<td>5221 FIT</td>
<td>401 FIT</td>
</tr>
<tr>
<td>TH02/102/202, TH02/102/202-EX with 4-wire RTD low stress</td>
<td>according to IEC751</td>
<td>93 %</td>
<td>7,49 * 10(^{-3})</td>
<td>2451 FIT</td>
<td>171 FIT</td>
</tr>
<tr>
<td>TH02/102/202, TH02/102/202-EX with 2/3-wire RTD, low stress</td>
<td>according to IEC751</td>
<td>78 %</td>
<td>2,41 * 10(^{-3})</td>
<td>2071 FIT</td>
<td>551 FIT</td>
</tr>
</tbody>
</table>

1) according to chapter 11.4 of IEC 61511

For the prior-use investigation the instrument including the modifications was analysed.

02.03.2004

Date

Harald Müller
Head of Hardware Development

Wilhelm Mergler
Head of Quality Management

Ref.: FMEDA and Prior-use Assessment for Temperature Transmitter TH02 exida.com