



# IS interfaces

## 3. Analog inputs – converter

Principle of a galvanic insulation and reminders concerning I.S.

General specifications for galvanic insulation interfaces

Selection guide

Use of galvanic insulation

Table of equivalent references according to type of assembly

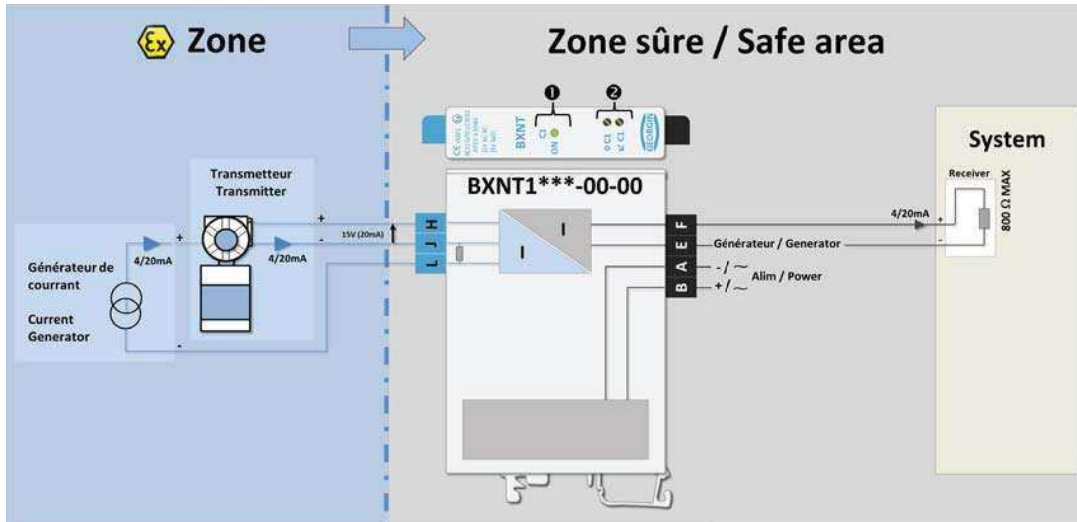
Ref.	Description (see technical data sheet for further information)	IS parameters ATEX marking																									
<b>BXNT1***-00-00 (ex)</b>	<p>The BXNT1 performs the same function as the BXNT6 (see Standard Analog Inputs) with the exception that this version (depending on the model) is capable of converting the input signal (e.g. Voltage 0-5 V) into another type of signal, voltage or current. In this example it performs a simple 4/20 or 0-20 mA / 4/20 mA insulation. This device features a different encoding depending on whether it is used on active or passive outputs:</p> <table border="1"> <thead> <tr> <th>Type</th> <th>Option</th> <th>Power supply</th> <th>Input</th> <th>Output</th> </tr> </thead> <tbody> <tr> <td rowspan="4">BXNT1</td> <td rowspan="2">00 No option</td> <td>0 230 V AC</td> <td>00 <b>4/20 mA</b></td> <td>00 <b>4/20 mA</b></td> </tr> <tr> <td>1 110 V AC</td> <td>04 0/20 mA</td> <td>03 0/20 mA</td> </tr> <tr> <td rowspan="2">B0 Screw terminals</td> <td>3 24 V DC</td> <td>11 0/5 V</td> <td>08 0/5 V</td> </tr> <tr> <td>4 48 V DC</td> <td>13 0/10V</td> <td>09 0/10V</td> </tr> <tr> <td></td> <td></td> <td>XX Other on request</td> <td>A0 Passive 4/20 mA</td> <td>XX Other on request</td> </tr> </tbody> </table> <p>① Presence of voltage indicated by a green LED ② Adjustment potentiometers for the source and the curve of the 4/20 mA output.</p>	Type	Option	Power supply	Input	Output	BXNT1	00 No option	0 230 V AC	00 <b>4/20 mA</b>	00 <b>4/20 mA</b>	1 110 V AC	04 0/20 mA	03 0/20 mA	B0 Screw terminals	3 24 V DC	11 0/5 V	08 0/5 V	4 48 V DC	13 0/10V	09 0/10V			XX Other on request	A0 Passive 4/20 mA	XX Other on request	<p><b>HJ terminals:</b>  <b>U<sub>o</sub>:</b> 27.5 V  <b>I<sub>o</sub>:</b> 80.1 mA  <b>P<sub>o</sub>:</b> 550.72 mA  <b>Co,</b> IIC: 86 nF  <b>Lo,</b> IIC: 2.8 mH</p> <p><b>Marking:</b>  II(1)G [Ex ia] IIC  II(1)D [Ex iaD] IIC  Certificate:  02ATEX6104X</p>
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<b>BXNT1***-00-A0 (example)</b>	<p>In this example, the device represented is on a passive output (F+E-).</p> <table border="1"> <thead> <tr> <th>Type</th> <th>Option</th> <th>Power supply</th> <th>Input</th> <th>Output</th> </tr> </thead> <tbody> <tr> <td rowspan="4">BXNT1</td> <td rowspan="2">00 No option</td> <td>0 230 V AC</td> <td>00 <b>4/20 mA</b></td> <td>00 4/20 mA</td> </tr> <tr> <td>1 110 V AC</td> <td>04 0/20 mA</td> <td>03 0/20 mA</td> </tr> <tr> <td rowspan="2">B0 Screw terminals</td> <td>3 24 V DC</td> <td>11 0/5 V</td> <td>08 0/5 V</td> </tr> <tr> <td>4 48 V DC</td> <td>13 0/10V</td> <td>A0 <b>Passive 4/20 mA</b></td> </tr> <tr> <td></td> <td></td> <td>XX Other on request</td> <td>XX Other on request</td> <td>XX Other on request</td> </tr> </tbody> </table> <p>① Presence of voltage indicated by a green LED ② Adjustment potentiometers for the source and the curve of the 4/20 mA output</p>	Type	Option	Power supply	Input	Output	BXNT1	00 No option	0 230 V AC	00 <b>4/20 mA</b>	00 4/20 mA	1 110 V AC	04 0/20 mA	03 0/20 mA	B0 Screw terminals	3 24 V DC	11 0/5 V	08 0/5 V	4 48 V DC	13 0/10V	A0 <b>Passive 4/20 mA</b>			XX Other on request	XX Other on request	XX Other on request	<p><b>HJ terminals:</b>  <b>U<sub>o</sub>:</b> 27.5 V  <b>I<sub>o</sub>:</b> 80.1 mA  <b>P<sub>o</sub>:</b> 550.72 mA  <b>Co,</b> IIC: 86 nF  <b>Lo,</b> IIC: 2.8 mH</p> <p><b>Marking:</b>  II(1)G [Ex ia] IIC  II(1)D [Ex iaD] IIC  Certificate:  02ATEX6104X</p>
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<b>BXNT1***-13-08 (example)</b>	<p>In this example, the device converts a 0/10 V input signal into a 0/5 V output signal.</p> <table border="1"> <thead> <tr> <th>Type</th> <th>Option</th> <th>Power supply</th> <th>Input</th> <th>Output</th> </tr> </thead> <tbody> <tr> <td rowspan="4">BXNT1</td> <td rowspan="2">00 No option</td> <td>0 230 V AC</td> <td>00 4/20 mA</td> <td>00 4/20 mA</td> </tr> <tr> <td>1 110 V AC</td> <td>04 0/20 mA</td> <td>03 0/20 mA</td> </tr> <tr> <td rowspan="2">B0 Screw terminals</td> <td>3 24 V DC</td> <td>11 0/5 V</td> <td>08 <b>0/5 V</b></td> </tr> <tr> <td>4 48 V DC</td> <td>13 <b>0/10V</b></td> <td>A0 Passive 4/20 mA</td> </tr> <tr> <td></td> <td></td> <td>XX Other on request</td> <td>XX Other on request</td> <td>XX Other on request</td> </tr> </tbody> </table> <p>① Presence of voltage indicated by a green LED ② Adjustment potentiometers for the source and the curve of the 4/20 mA output</p>	Type	Option	Power supply	Input	Output	BXNT1	00 No option	0 230 V AC	00 4/20 mA	00 4/20 mA	1 110 V AC	04 0/20 mA	03 0/20 mA	B0 Screw terminals	3 24 V DC	11 0/5 V	08 <b>0/5 V</b>	4 48 V DC	13 <b>0/10V</b>	A0 Passive 4/20 mA			XX Other on request	XX Other on request	XX Other on request	<p><b>JL terminals:</b>  <b>U<sub>o</sub>:</b> 12.5 V  <b>I<sub>o</sub>:</b> 2.4mA  <b>P<sub>o</sub>:</b> 15 mW  <b>Co,</b> IIC: 1200 nF  <b>Lo,</b> IIC: 1000 mH</p> <p><b>Marking:</b>  II(1)G [Ex ia] IIC  II(1)D [Ex iaD] IIC  Certificate:  02ATEX6104X</p>
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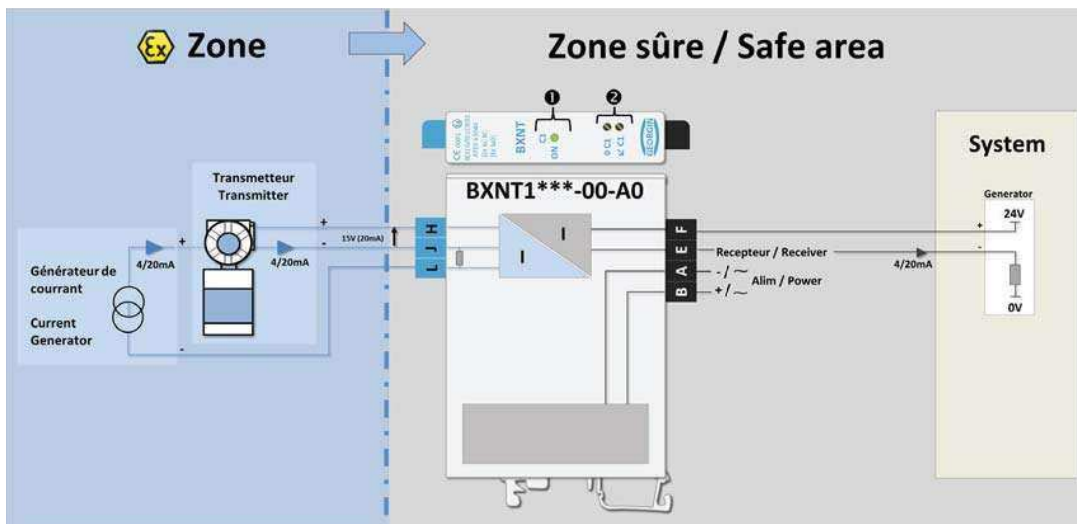


## Explanatory diagram

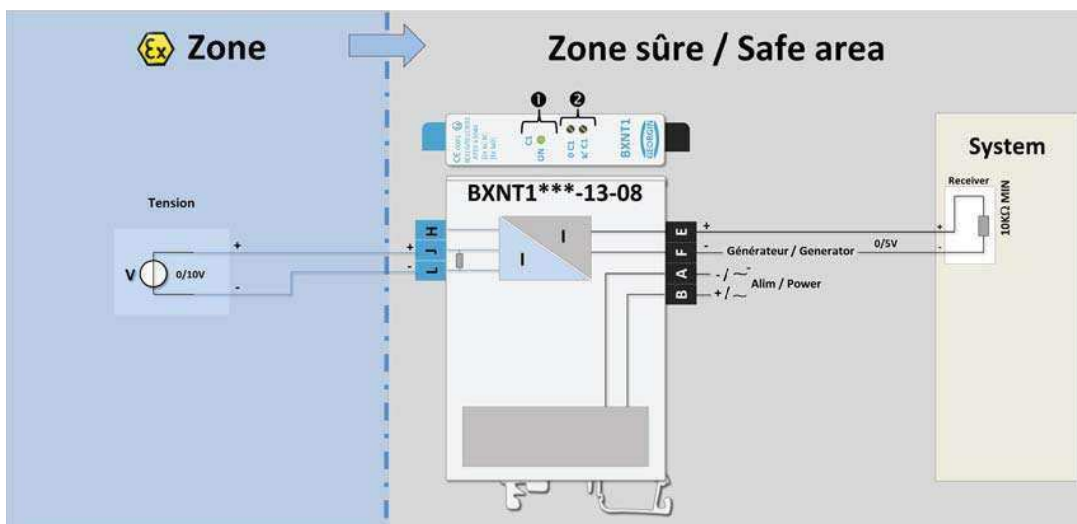
I/O



1 Input / 1 active Output



1 Input / 1 passive Output



1 Input / 1 Output (Conversion)

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