Tina 10A/B/C – Adaptor unit

General description

Tina: 10 – C are used to adapt Orion on Focus light beams and light curtains with OSSD outputs to the DYNlink safety circuit. This also enables complete external interconnections using cables with M12 connectors only, which reduces the cabling and to connectings in the apparatus enclosure.

All Tina 10 units have an 8-pole female M12 connector for easy connection to an Orion receiver and a 5-pole male M12 connector for quick installation to the DYNlink safety circuit. Tina 10B has an extra 5-pole female M12 connector that enables local reset with a 5mil reset button. The Tina 10C also has an extra 5-pole female M12 connector but the extra connector is instead used to connect an Orion transmitter (for power supply instead of using an extra M12-3B).

The Tina 10A/B/C safety adaptor is intended for use in safety circuits in accordance with EN 60404-1.

Connections

Orion Receiver:

| Tina 10A/C | +24 VDC | 0 V |

Orion Transmitter:

| Tina 10C | +24 VDC | 0 V |

Cable between Orion and Tina 10A/B/C depending on Orion model

- Orion 1 Base
- Orion 1 Extended
- Orion 2 Base
- Orion 2 Extended
- Orion 3 Base
- Orion 3 Extended
- Orion Receiver

LED indicator

- Green: Safety circuit on
- Yellow: OSSD signal
- Red: Safety circuit interrupted

Information output signal attributes

When OSSD1 and OSSD2 are both high, the information output signal depends on the input signal according to the table below. Note that if the safety is interrupted on the device connected to this unit, the information output signal will be always low.

<table>
<thead>
<tr>
<th>Input signal (pin 0)</th>
<th>OSSD1 signal</th>
<th>OSSD2 signal</th>
<th>+24 VDC</th>
<th>0 V</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Low</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
</tr>
</tbody>
</table>

Technical data

- Size: 27 x 31 x 40 mm (L x W x H)
- Weight: 40 g

Safety and Environmental standards

- EN 60404-1, EN 60947-5-1, EN 61508, EN 61508-1, EN 61508-2, EN 61508-3

Warning!

The information channel output shall never be used for the safety purpose(s).

Warning!

The OSSD connections shall not be used for purposes other than intended. All loading or tampering with loops can lead to serious risk of life.

Caution!

All cable colours according to ABB: Jokab Safety standard cables.

Warning!

All the safety functions shall be tested before starting up the system.

Maintenance

- The safety functions and the mechanics shall be tested at least once every year to confirm that all the safety functions are working properly (EN 60601-2-4, 2005-2015).

LED indication

- LED: Indication
- Description
- Input signal on pin 0

Information output signal switch delay

- Delay for switching information output signal

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>-2 ms</td>
</tr>
<tr>
<td>Low</td>
<td>-2 ms</td>
</tr>
</tbody>
</table>

Abbreviations

- ABB: ABB JOKAB SAFETY
- DIN: Deutsche Industrie Normen
- IEC: International Electro technical Commission
- UL: Underwriters Laboratories
- EN ISO 13849
- EN 61508
- EN 61800-5-1
- EN 60204-1
- EN 60601-2-4
- EN 60947-5-1
- EN 61508
- EN 61800-5-2
- EN 62061
- EN 61517
- EN 60335
- EN 50107
- EN 50178
- EN 50602-1
- EN 61000-6-4
- EN 61000-6-2

Certificate

- Explosion degree: 2
- Rated power: 2000 mVA
- Input voltage: 600 Vrms
- Input power factor: 0.95
- Efficiency: 92%
- Input side: 3-phase 380 V
- Output side: 400 V
- Protection: IP54
- Dimensions: 450 x 250 x 100 mm
- Weight: 40 kg

Input power for safety in USA

- Power source: Inverter
- Power source output: 230 VAC
- Input power: 2000 mVA
- Output power: 2000 mVA
- Input power factor: 0.95
- Efficiency: 92%
- Input voltage: 480 V
- Output voltage: 480 V
- Input current: 20 A
- Output current: 20 A
- Protection: IP54
- Dimensions: 450 x 250 x 100 mm
- Weight: 40 kg

Contact for order code

- Orion 1 Base: 2TLC010043M98
- Orion 1 Extended: 2TLC020054R161
- Orion 2 Base: 2TLC010043M98
- Orion 2 Extended: 2TLC020054R161
- Orion 3 Base: 2TLC010043M98
- Orion 3 Extended: 2TLC020054R161

Warning!

The fuse in +24 VDC must be rated max. 4 A. If installed in the +24 VDC power supply, limit to the available current.

Description and examples show how the product works and can be used. It does not mean that it fulfills the requirements for all types of machines and processes. The buyer/user is responsible for installing and using the product according to applicable standards and regulations. We reserve the right to make changes to the product and the documentation without prior notice.