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**REACH CONFORMITY**



## EC DECLARATION OF CONFORMITY

This document is the conformity declaration concerning safety switches and relays, conform to the Machine Directive 2006/42/CE and the EMC Directive 2004/108/CE.

### ELECTROMECHANICAL SAFETY MODULES

| Range     | Standards   | Approvals                        | Category ISO 13849-1  |
|-----------|---|----------------------------------|---|
| AWAX26XXL | ISO 13849-1 / EN 60947-5-1<br>EN 61326-3-1 / EN 62061<br>UL508 NRNT<br>NRNT7 C22.2 n°14-M91 | CE<br>TÜV Rheinland<br>UL<br>CSA | <div style="border: 1px solid black; padding: 5px;">           Performance Level (PL) = e<br/>           Safety category = 4 or SIL3<br/>           MTTFd = 415 years<br/>           DC = 99 %<br/>           CCF = 90 %<br/>           TM= 20 years         </div> |

**Test conditions :**

Switching Current = DC13-5 A / 24 V or AC15-5 A / 250 V  
 Power Supply = 24 V PELV/SELV or 24 VAC  
 Ambient Temperature = +25 °C

**Serial number coding & example**

**YEAR WEEK NAME OPERATOR / NAME TEST MANAGER POSITION**  
 11 36 AB CD 03

Quality Management System : AB CERTIFICATION A879  
 AWAX system safety level 4 approval : TÜV Rheinland  
 Name of Technical authority : Christophe PAYS from COMITRONIC-BTI

This product range is intended to monitor an emergency stop or safety sensor.  
 The safety modules is designed and manufactured following UL508 / CSA C22.2 regulation.  
 Safety modules must be used following diagram and directives described in our data sheet.

Noisy le Grand, 22th sep. 2011  
 Managing Director  
 Michèle LEFOULON,



# AWAX26XXL safety module technical data sheet

V4.4

Thank you for your confidence in BTI products.  
This product has been designed and manufactured to the highest quality standards.

## 1. Application field

The AWAX26XXL has been designed to monitor mechanical switches, switches using the process ACOTOM® (BTI's trademark), or the emergency push buttons with 2 NC lines at least. This module has 4 safety outputs (3 NO + 1 NC), each one with a switching capacity of AC1 8A/250V. The safety relay can be used in applications up to Kat4 PLe acc. EN ISO 13849 or Sil3 acc. EN 62061. The safety outputs of AWAX26XXL must be tested by the user in regular test intervals unless it is cyclically tested by the application itself where it is implemented. The test interval depends typically on the safety analysis of the global system where it is implemented. It is recommended to test the system at least once a year.

## 2. Mounting instructions

The user is to install external fuses acc. the wiring example. 22.5mm wide case mountable on a symmetrical DIN rail 35mm according to DIN 50022. The tightening couple of the terminals is 0.68 Nm. Use 60/75°C copper wire only. The maximum diameter of the wiring cable is 2.08mm² (14 AWG). To provide a sufficient protection for the operators against electrical shock, the complete wiring between the safety relay unit AWAX26XXL and all external elements (e.g. emergency stop buttons) has to be performed by cables with isolation which is dimensioned for a nominal voltage of 250V even if the nominal voltage on the cable itself is only 24Vac/dc. The safety relay is to be installed in an IP54 environment.

## 3. Operating mode

Select the reloading mode with the switch placed at the back of the module. Connect one switch or safety switch. Starting mode : the lines 13/14, 23/24, 33/34 are opened and 41/42 is closed. LED ON lit up.

### Manual reset (N)

- The system is resetted by a NO contact (BP). When the contact closes and if T11/T12 and T21/T22 lines are closed, then the 13/14, 23/24, 33/34 lines close and the 41/42 line opens. The LED V1 and V2 light on.
- The C/V contact should open. If not, a fault will be detected at the next working cycle (locking and LED V1 lit up).
- If the 2 T11/T12 and T21/T22 lines open simultaneously, the safety lines change to their starting mode and the LED V1/V2 turns off. If only one line (ex: T11/T12) opens, only the LED V1 turns off, the safety lines change to their starting mode and the module will stay locked in this position: an action on the C/V contact will not have any effect. Check the T21/T22 line in this example.

### Automatic reset mode (SR)

The reset contact is replaced by a wire.  
Caution : the module is resetted automatically as soon as the failure disappears. Its application has been prohibited in the access control of zone.  
If the LED ON and V1 light at the time of the switching on, check that the switch at the back of the module is on "SR".

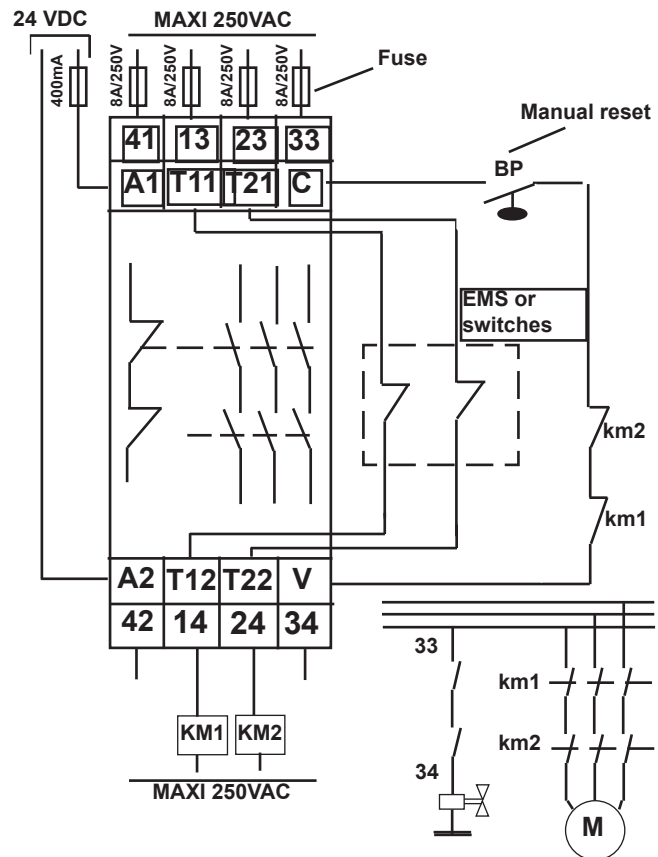
## 4. Note

It is possible to connect several emergency stop in series with positive opening or more AMX Series Sensor or Anatom. In the case of ANATOM 78S, we limit the number of sensors in series to 30. For the ANATOM 6S, we limit to 5. The customer must ensure that there is no masking of default when connecting to sensors in series.

## 5. Technical Characteristics

|                         |   |
|-------------------------|---|
| Supply voltage (Un)     | 24Vac/dc to be provided by a Class 2 power supply or a UL transformer protected by a UL Listed fuse rated 4A max. |
| Tolerance               | -15 % / +10 %   |
| Power consumption       | 2W (DC) ; < 5VA (AC)  |
| Electrical protection   | DLC : Electronic current-limiting circuit-breaker   |
| Switching output        | AC1 8A-250V/AC15 5A-250V/DC13 5A-24V  |
| Minimal Switching power | 50 mW or 10mA/5V  |
| Response time           | < 20ms  |
| Switching rate          | SR Mode : 5Hz/10mA and 0,1Hz/8A   |
| Temperature             | -20 °C / +60 °C   |
| Protection class        | IP20  |
| Dimensions WxHxP        | 22,5 x 100 x 111mm  |
| Weight                  | 178 g   |

## 6. Wiring example AWAX26XXL-N



## 7. Wiring example AWAX26XXL-SR

