



MANUFACTURER OF SAFETY MATERIAL
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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
AWAX29XXL AWAX29XXLP	ISO 13849-1 /EN 60947-5-1 EN 62061	CE	Performance Level (PL) = e Safety category = 4 or SIL3 MTTFd = 415 years DC = 99 % CCF = 90 % TM= 20 years

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

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, 06 th mar. 2013

For BTI,

Mrs Michèle LEFOULON ,



AWAX29XXL Technical data sheet

Thanks you to your confidence in BTI products.
This products has been designed and manufactured to reach the highest quality standarts.

1. Application field

The AWAX29XXL is made to control mechanical sensors, sensors with ACOTOM process, or Emergency push button and sensor with OSD. which have at least two lines NC. A specific area allow the extension of safety lines or allow a sensor with 2 PNP output. This safety module is adaptated while using our VIGILGUARD-SF because we aren't trouble by the numerical signal OSSD and we won't lose the safety level. This module had 4 safety lines (7 NO + 2 NC + test).

Each of them has a power cut of AC1 8A/250V. This product can be use according to EN ISO 13849 or SIL 3 according to EN 62061. The AWAX29XXL safety outputs must be tested by the user in regular test intervals unless it's cyclically tested by the application itself. The test interval depend on the safety analysis of the global system. it's recommanded to test it 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. Working (see §7)

-The supply is made by the input A1(+24 VDC) & A2(0 V).

- Sleep state or safety state :
The lines NO (13/14, 23/24, 33/34, 43/44, 53/54, 63/64, 73/74) are open, the lines NC are closed (41/42, 51/52) the status LED V1 & V2 are OFF. the switching at the back it's on N.

- The interlocking system VIGILGUARD-SF is locked in his strike head and the 2 output S1/S2 give the supplied voltage.
The contacts 43/44, 53/54, 63/64, 73/74 are closed, and the line 51/52 is open.

A pulse on «start» button activate the system and the NO contacts (13/14, 23/24, 33/34) are closed and the line 41/42 is open. The LEDs V1/V2 are green.

- choosing the reset Mode :
Switch at the back on N=Pulsing Mode
Switch at the back on SR=Automatic Mode (the «start» contact is replaced by a wire.)

- When VIGILGUARD-SF is not engaged in his strike head NO (13/14, 23/24, 33/34, 43/44, 53/54, 63/64, 73/74) are open, lines NC (41/42, 51/52) are closed and LEDs V1/V2 are OFF.

4. Références

AWAX29XXL : Line 41/42 is in serie redundancy
AWAX29XXLP : la ligne 41/42 is in parallel redundancy

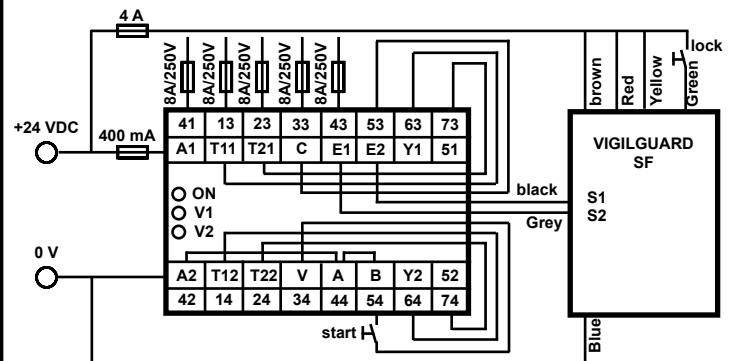
5. Technical Characteristics

Supply Voltage	24 VDC +/-15%
Current consumption	< 10VA
Switching Output	AC1 8A-250V / AC15 5A-250V DC13 5A-24V
Over current protection	DLC=350mA/ VA1/A2 max=40 V
Temperature	-20 °C / +60 °C
LED indications	1 ON LED + 2 Channels LED
Protection class	IP20
Dimensions WxHxP	45 x 99 x 111mm
Weight	265 g
Minimum Line Current	5 mA / 5Vdc

6. recommendations

it's advised to use thermal fuses as indicated in wiring diagram §7 in order to avoid any damages. You must also use an 8A thermal fuse on each switching lines. If an inductive load is use on the lines , it's appropriate to use the a specific filter in case of AC or diode freeheel.

7. wiring (example with VIGILGUARD-SF)



8. Sizes

