COMITRONIC - BTI

MANUFACTURER OF SAFETY MATERIAL
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REACH CONFORMITY

RoHS Compliant

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
CO13XXL	ISO 13849-1	CE	Performance Level (PL) = d Safety category = 3 MTTFd =240 years DC = 90 % CCF = 65 % TM= 20 years Checking period=1/year

This product range is intended to monitor an emergency stop, a 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.

Place and date of issue : Noisy, september 28, 2014

Authorised signature
Michel Conte
Director

PROCESS ACOTOM®

BTI

SECURITE MACHINE

Launching year 2004

CO13 XXL safety module technical data sheet

V2.5

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

1. Application

The CO13 XXL, category 3 (as per the cabling and configuration) is a safety module designed to control mechanical switches, switches using ACOTOM® and ACOTOM® process (BTI's trademark), or emergency push buttons. The device to be self-controlled should be connected to a common point and free of potential. This module has two safety lines (2 NO) with switching capacity of 8A/250VAC, a NC auxiliary line of 8A/250VAC and a NO auxiliary line of 0,4A 24Vac/dc.

2.Mounting instructions

22.5mm-wide case with plugs in terminals mountable on a symmetrical DIN rail 35 mm according to DIN 50022.
The max. tightening couple of the terminals is 0.5 Nm.
The maximum section of the wiring cable is 2.5 mm².

3.Functioning

Select the reset mode by means of a switch at the back of the module. Connect one switch or a safety switch. Starting modes : the lines 13/14, 23/24, 33/34 are opened and the line 41/42 is closed. LED ON lit up.

Switch in N position (normal mode)

a) The system is reset by an impulse on a NO contact (PB) connected in the X1/X2 line. When the contact closes, the system stays in the same position but as soon as the contact opens, and if the C/E1 and C/E2 lines are closed, then the lines 13/14, 23/24, 33/34 close and the line 41/42 opens. The LED V1 and V2 light on.

b) If the 2 lines C/E1 and C/E2 open simultaneously, the safety lines change to their starting mode and the LED V1/V2 turn off.

c) If only one line opens (ex:C/E1), the safety lines change to their starting mode and only the LED V1 turns off. The safety lines stay locked in this position : an action on the X1/X2 action will have any effect. Check the C/E2 line in this example.

Switch in SR position

a) The reset contact can be replaced by a wire : in this case, it is an automatic reset mode.

b)If we keep the reset contact in the loop, we do not control any more the opening of this contact. You only need to have a contact in the X1/X2 line to reset the module.
Caution: the module is automatically reset as soon as the default disappears. Its application has been prohibited in the area access control.

Wiring in Monochannel

The terminals E1 and E2 must be linked together and the contact to be selfcontrolled is connected between C and the connection E1-E2. In this mode, the system reaches category 2 according to EN954-1 with the wiring of a reset loop.

Advice

The installation has to be periodically checked. Our engineers team stays at your disposal to answer your questions and analyse all your specific demands (studies, specific needs...). Please do not hesitate to contact us.

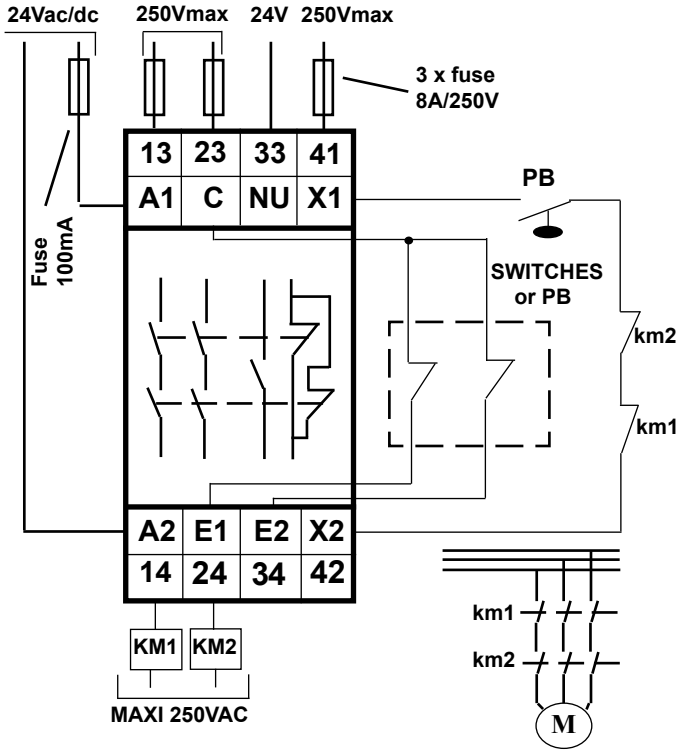
4. Technical characteristics

Power Supply	24VAC 50Hz/60Hz ou 24VDC
Range of supply	-15 % / +10 %
Consumption	< 3.5 W (DC) ; < 4 VA (AC)
Safety lines	2 x 8A / 250VAC
Auxiliary lines	1NF 8A/250Vac et 1NO 0,4A 24Vac/dc
Power Switching	50 mW to 2000 W
Response Time	20ms
Temperature	-20 °C / +60 °C
Protection Class	IP20
Dimensions LxWxH	22.5 x 100 x 111 mm
Poids	125 g

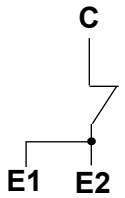
5. Wiring examples

a) Wiring example cat.3 in dual channel

Safety lines : 13/14 (8A), 23/24 (8A)
Auxiliary line : 33/34 (400mA), 41/42 (8A)



b) Wiring example cat.2 in monochannel



Check the position of the switch N/SR at the back of the device