

DECLARATION OF CONFORMITY

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

ELECTRONIC SAFETY SWITCHES

Range	Safety Standards	Approvals/conformity
OPTOPUS DEC	ISO 13849-1 EN 60947-5-3	CE
OPTOPUS DEC MKT	ISO 13849-1 EN 60947-5-3	CE

Performance Level (PL) = e
Safety category = with AWAX
 MTTFd = 420 years
 CCF = 90 %
 TM= 20 years
 Checking period = 1/year
 Type 4 acc. ISO 14119
 average level on request



This range of safety switches is designed to replace mechanical safety switches used on doors and cranks of dangerous machines. It uses our process ACOTOM® or ACOTOM₃®. All the safety switches and safety modules are designed and manufactured following UL508/CSA C22.2 regulation.

Safety switches and safety modules must be used following diagram and directives described in our data sheet.

FOR BTI, 2 mar. 2015
 CHRISTOPHE PAYS

PROCESS ACOTOM®



Technical Datasheet OPTOPUS DEC MKT^{V0.6}

You have just purchased a BTI product – thank you for your confidence in BTI products.
This high-tech product has been developed and manufactured to the highest quality standards to ensure maximum reliability.

1. Application field

The OPTOPUS DEC MKT safety switch is designed to protect guarddoors using the ACOTOM®2 electronic process, in connection with an AWAX safety relay.

Available in PA6 and stainless steel 316L housing, it is well adapted for the tiny accesses of machines. Its two opposite NO static channels outputs inform a safety module about the switch and door status. It has a PNP NC auxiliary line compatible with the PLC (black ABS Housing for NA type).

2. Mounting and wiring

With two mounting brackets, the OPTOPUS DEC MKT can be easily fixed with M3 screws (ZU3 stainless steel washers provided).

Special anti-tamper steel screws (M3x20) and tools are offered in option.

The receiver is provided with a PUR standard cable 6,4mm diam. with a M12 male connector.

3. Operation mode

The power 24V ac/dc (Blue/Brown) can be supplied either from the Awax (on T11/T21 terminals of AWAX), or be supplied from an external power supply 24v AC/DC.

When the two targets of the transmitter and receiver are facing each other (from 0 to 7 mm), the two safety contacts 1-5 (White/Grey) and 4-6 (Yellow/Pink) are closed and the auxiliary line opens.

In the case where a guarddoor is open, the two NO safety lines open and the NC auxiliary line closes, sending the signal to the safety module.

The status is indicated to the PLC by the auxiliary line.

4. LED status display

A yellow LED on the side of the switch indicates the status of the switch (correct alignment and recognized code).

5. IP69K

For the version OX, the protection IP 69K is not valid on the cable side face.

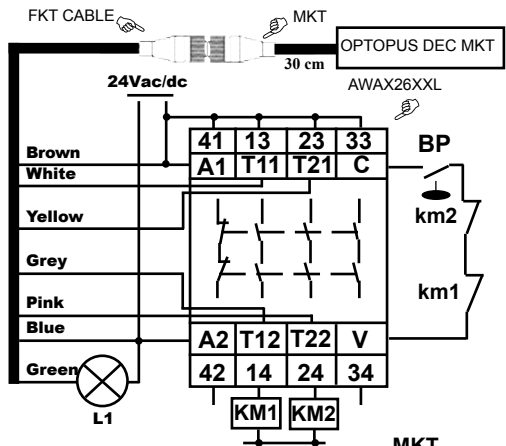
6. Information concerning only European Union

According to the standard EN 50178, the power supply must be isolated for a test voltage of 1800Vac applied, or the device must withstand a surge voltage of 4000V in case of overvoltage.

7. Technical features

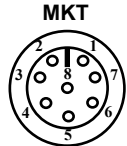
Power supply	24Vac/dc +10% -15% & 30mA DC / 70mA	
MTTFd / DC	423 years/ 99 %	
Safety outputs	24VDC / 400mA	
Auxiliary output	DEC: NF PNP / NA: NF NPN et I=400mA	
Protection class	IP67 / IP69K (St. steel 316L)*	
Temperature	-20 °C / +60°C	
Sw. distance/ hyst.	ON:9 mm / OFF:10 mm / lateral +/- 4 mm	
Dimensions LxIxh	Emetteur 70 x 16 x 12 mm	Récepteur 70 x 16 x 16 mm
Weight	Emitter PA6:20g 316L: 65g	Receiver PA6:150g 316L:190g

8. Wiring



Connector MKT/FKT :

- | | |
|--------------------|------------|
| 1 White T11 | 5 Grey T12 |
| 2 Braun 24V | 6 Pink T22 |
| 3 Green AUX PNP NF | 7 Blue 0V |
| 4 Yellow T21 | 8 Red nc |



9. Dimensions (mm)

