# **E**COMITRONIC - BTI

#### MANUFACTURER OF SAFETY MATERIAL

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### 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 Directive 2004/108/CE.

# **SAFETY SWITCHES**

We hereby certify that the hereafter described safety components both in its basic design and construction conforms to the applicable European Directives.

Name of products:

Range	Safety Standards	Conformity
ANATOM 78S-M12	ISO13849-1	CE
ANATOM 98S-M12	ISO13849-1	CE
ANATOM 78S-SRM-M12	ISO13849-1	CE
ANATOM 78S-SES-M12	ISO13849-1	CE

Performance Level (PL) = e
Safety category = with AWAX
MTTFd = 334 years
Checking period=1/year
Type 4 acc. ISO 14119
average level on request





#### Description:

Coded safety-sensor with process Acotom<sub>2</sub>® principle in combination with the AWAX serie of safety-monitoring modules from COMITRONIC-BTI or an equivalent safety-oriented control system fulfilling the requirements of the EN 60947-5-3 and ISO 14119.

Person authorized for the compilation of the technical documentation :

Christophe PAYS 34 Allée du Closeau 93160 Noisy le Grand

U.S. market: All products are manufactured with UL components and 94VO housing

Place and date of issue: Noisy, december 18, 2014

Authorised signature Michel Conte President



## Datasheet of the ANATOM78SM12/98SM12

3 Green NC1

4 Yellow NO2

Thank you for your confidence in BTI products.

This product has been designed and manufactured to the highest quality standards.

### 1. Application

The product is a coded electronic safety switch equipped with our anti-tamper ACOTOM<sub>2</sub>® decoding process. It detects the opening of the doors on the dangerous machines when it is connected to AWAX safety module. It's composed of a transmitter and a receiver. It has two static, unidirectional, independent NO contact lines isolated from decoding system to provide a maximum safety. It also has an NC auxiliary line (switch to be supplied) to report the fault. It can be used on any machine with a high rhythm having an automatic action. As any safety product, this switch must be checked periodically.

#### 2. Regulation

It complies with the European standard EN60947-5-3. The safety is only ensured when one switch is connected to an AWAX. The protection class is IP67 according to EN60529.

## 3. Fixing and wiring

Having two fixing holes, two elements of the ANATOM78S M12 are easily fixed with 4mm diameter screws (width of the head max. 8,5 mm, non milled head). Providing with anti-tamper screws and tools is optional. The receiver is equipped with one metal M12 IP67 8 plots connector.

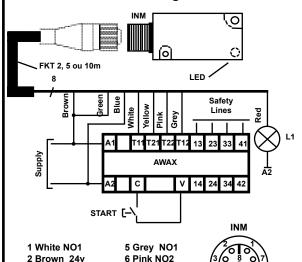
## 4. Functioning

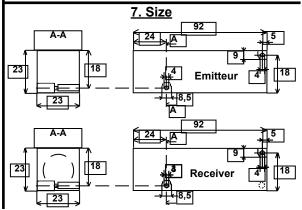
The product is supplied with 24 VAC/DC by the AWAX safety module (without any external supply max. 5 switches can be supplied by AWAX and with an external supply of 24VAC/DC max. 30 switches in series can be supplied by AWAX). When the targets of the receiver and the transmitter are facing each other if the code is recognised, two NO lines close. The LED lights up. If no code is recognised or if there is a too big misalignment the LED lights off and two NO lines open. In order to connect the switches in series, an optional module of derivation that regroups the auxiliary lines on a connector has been planned (see the document about the modules of derivation). In order to avoid violent chocks, to leave a distance of at least 1 mm between the transmitter and the receiver is advised. The detection distance between both elements is 11mm maxi. The detection can be done through a 6mm wide wall in polycarbonate or stainless steel.

#### 5. Technical datas

Power Supply	24 VAC/DC - 15% / +10% 50/60Hz	
Current	42 mA DC / 70 mA AC	
Safety Lines	24 VDC / 800 mA @ 25°C	
Auxiliary Line	78S: PNP NC / 250mA	98S: PNP NO / 250mA
Range / Hysteresis	8 mm / 3 mm / lateral +/- 7 mm	
Temperature / IP	-25 °C / +60 °C / IP 67	
Size L x I x h	Emitteur 92 x 23 x 23 mm	Receiver 92 x 23 x 23 mm
Weight	80g	100g

#### 6. Wiring





7 Blue 0v

8 Red NC1