

AWAX26XXL DATASHEET

Original technical datasheet

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 Cat4 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.



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It is recommended to test the system at least once a month.

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. The tightening torque 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.



The fixing and tightening of the cables must be checked at regular intervals by the user.



It is recommended to check the wiring at least every 3 months.

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 mode (N)

a) 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.

b) The C/V contact should open. If not, a fault will be detected at the next working cycle (locking and LED V1 lit up).

c) 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.



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".



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

Technical data

Material of the housings	PA6GV30 thermoplastic
Mounting	DIN rail acc. EN 60715
Connection type	Screw connection Tightening torque 0.68 Nm Maximal wire section 2.08 mm ² (14AWG)
Dimension HxWxD	100 mm x 22.5 mm x 111 mm
Weight	178 g

Ambient conditions

Ambiente temperature	-20 °C ... +60 °C
Storage temperature	-20 °C ... +60 °C
Protection class	IP20

Electrical data

Operation voltage	24 VAC/DC -15%/+10% Class 2 power supply or a UL transformer protected by a UL Listed fuse rated 4A max.
Power consumption	< 2 W (DC) < 5 VA (AC)
Response time	< 20 ms
Electrical protection	DLC: Electronic current-limiting circuit-breaker (300mA)

Safety outputs 13-14 23-24 33-34 et 41-42

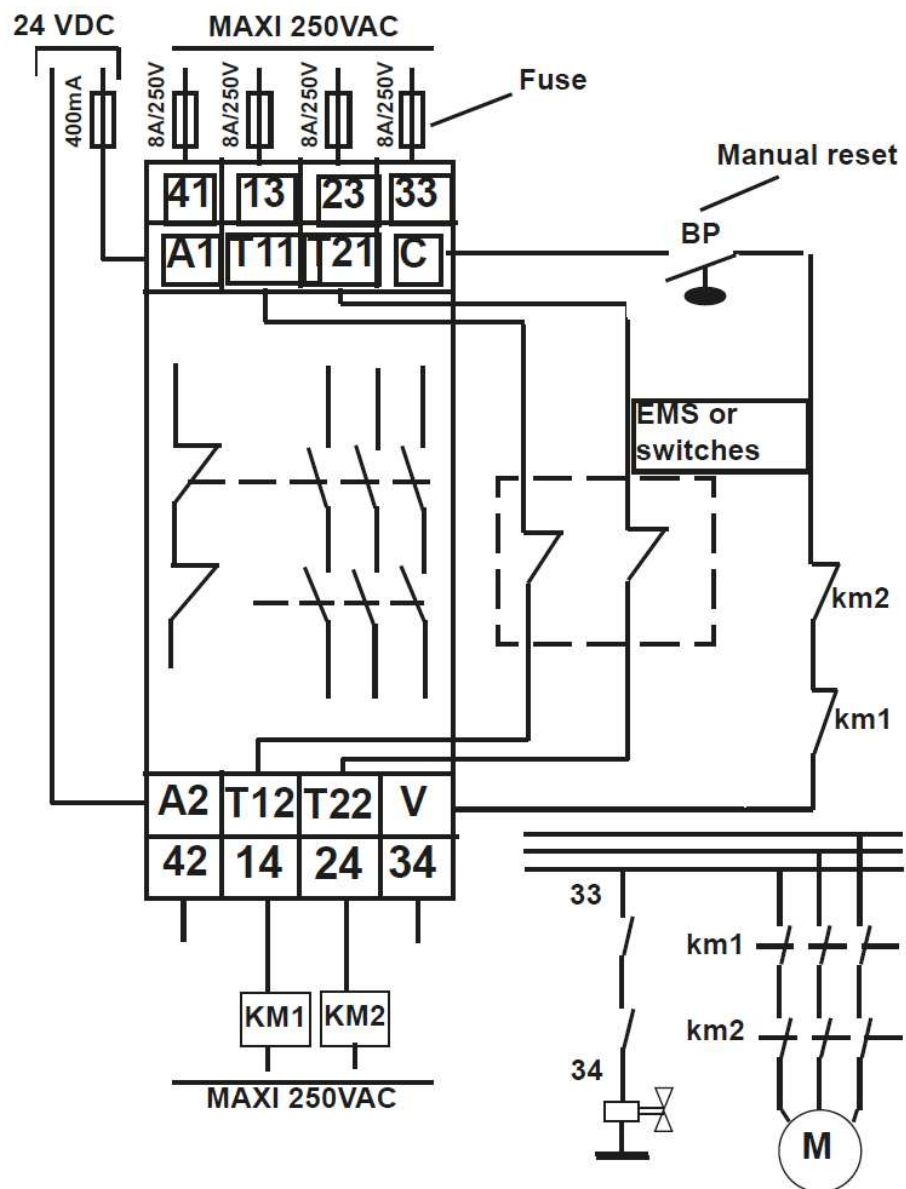
IEC 61810-1 on 1 form A (NO) contact	8A, 250VAC, cosφ=1.70C 20x10 ³
IEC 60945-5-1 on 1 form A (NO) contact	AC15 250V/5A DC13 24V/6A

UL 508	8A, 250VAC general purpose, 70C
on 1 form A (NO) contact	B300
Min. recommended contact load	5 V, 10 mA
Mechanical endurance (UL)	10M cycles
Electrical endurance (UL)	40 000 cycles at 8 A 300 000 cycles at 1 A
Frequency of operation	
with load	6 min ⁻¹
without load	150 min ⁻¹
Safety classification	
Standards	ISO 13849-1, IEC 61508, EN 62061
PL	e
Category	4
DC	99%
CCF	>65 points
SIL	3
MTTF _D	415 years
Time mission	20 years

6. Serial number

Coding	YEAR	WEEK	OPERATOR NAME	TESTER NAME	POSITION
Example	21	38	AB	CD	03

7. AWAX26XXL wiring example with N mode



8. AWAX26XXL wiring example with SR mode

