

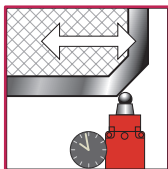
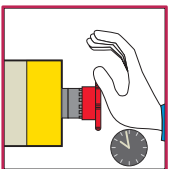
Preventa safety modules

For Emergency stop and switch monitoring -
Category 1

XPSABV, XPSATR, XPSAV, XPSATE

Catalog

October 2015



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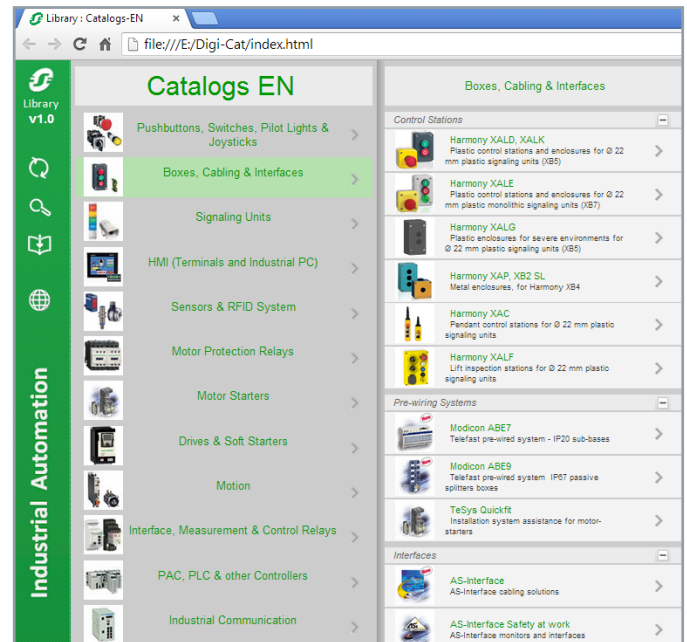
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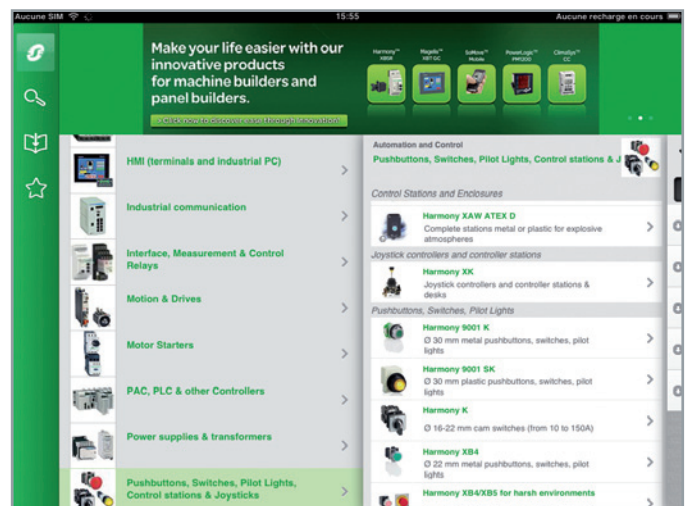
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Preventa safety modules

For Emergency stop and switch monitoring - Category 1

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Operating principle

Safety modules **XPSABV** are used for monitoring Emergency stop circuits conforming to standards EN/ISO 13850 and EN/IEC 60204-1 and also meet the safety requirements for the electrical monitoring of switches in protection devices conforming to standard EN/ISO 14119.

They provide protective for both the machine operator and the machine by immediately stopping the dangerous movement on receipt of a stop instruction from the operator, or on detection of a fault in the safety circuit itself.

In addition to the stop category 0 instantaneous opening safety outputs (2 for **XPSABV**), the modules incorporate stop category 1 time delay outputs (1 for **XPSABV**) which allow for controlled deceleration of the motor components until a complete stop is achieved (for example, motor braking by variable speed drive).

At the end of the preset delay, the supply is disconnected by opening the time delay output circuits.

- The time delay of the 3 output circuits is adjustable between 0.15 and 3 seconds or 1.5 and 30 seconds, depending on the model, using a selector switch.
- To aid diagnostics, the modules have LEDs which provide information on the monitoring circuit status.
- The Start button monitoring function is configurable depending on the wiring.

Maximum achievable safety level

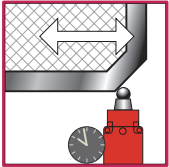
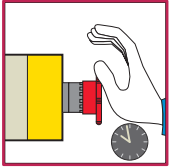
- PL e/Category 4 (instantaneous safety outputs) and PL d/Category 3 (time delay safety outputs) conforming to EN/ISO 13849-1
- SILCL3 (instantaneous safety outputs) and SILCL2 (time delay safety outputs) conforming to EN/IEC 61508 and EN/IEC 62061

Product certifications

- UL
- CSA
- BG

References

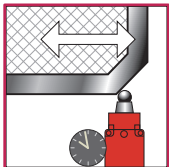
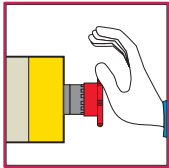
Description	Connection	Number of safety circuits	Additional outputs	Setting range of time delay	Supply	Reference	Weight kg/lb
Safety modules for Emergency stop and switch monitoring	Captive screw clamp terminals	3 NO (1 NO time delay)	–	0,15...3 s	≡ 24 V	XPSABV1133P	0.280/ 0.617
	Terminal block removable from module						
	Spring terminals	3 NO (1 NO time delay)	–	0,15...3 s	≡ 24 V	XPSABV1133C	0.275/ 0.606
	Terminal block removable from module						
	Captive screw clamp terminals	3 NO (1 NO time delay)	–	1,5...30 s	≡ 24 V	XPSABV11330P	0.280/ 0.617
	Terminal block removable from module						
	Spring terminals	3 NO (1 NO time delay)	–	1,5...30 s	≡ 24 V	XPSABV11330C	0.275/ 0.606
	Terminal block removable from module						



XPSABV1133P



XPSABV11330C



Operating principle

Safety modules **XPSATR** meet the requirements of Performance Level PL e/Category 4 conforming to standard EN ISO 13849-1.

- Safety modules **XPSATR** are electronic, redundant and self-monitoring devices with positively driven relays.
- They are used for monitoring Emergency stop circuits (single or two-channel) and protective guard applications.
- The modules are conforming to standards EN/ISO 13850 and EN 60204-1.
- They provide protection for both the machine operator and the machine by immediately stopping the dangerous movement on receipt of a stop instruction from the operator, or on detection of a fault in the safety circuit itself.
- **XPSATR** incorporate 3 NO and 1 NC not delayed contacts and 3 delayed NO contacts.
- To aid diagnostics, the modules have 5 LEDs on the front face which provide information on the monitoring circuit status.

Maximum achievable safety level

- PL e/Category 4 conforming to EN ISO 13849-1
- SILCL3 conforming to EN/IEC 62061

Product certifications

- UL
- CSA
- TÜV

References

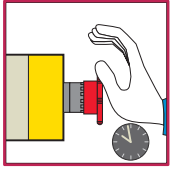
Description	Connection	Number of safety circuits	Additional outputs	Time setting range	Supply	Reference	Weight kg/lb
Safety modules for emergency stop and safety guards monitoring	Captive screw clamp terminals Terminal block removable from module	3 NO + 3 NO time delay	1 NC	0.1...3 s	≐ 24 V	XPSATR1153P	0.330/ 0.728
				0.1...3 s	~ 115...230 V	XPSATR3953P	0.350/ 0.772
				0...30 s	≐ 24 V	XPSATR11530P	0.330/ 0.728
				0...30 s	~ 115...230 V	XPSATR39530P	0.350/ 0.772
	Cage clamp terminals Terminal block removable from module	3 NO + 3 NO time delay	1 NC	0.1...3 s	≐ 24 V	XPSATR1153C	0.330/ 0.728
				0.1...3 s	~ 115...230 V	XPSATR3953C	0.350/ 0.772
				0...30 s	≐ 24 V	XPSATR11530C	0.330/ 0.728
				0...30 s	~ 115...230 V	XPSATR39530C	0.350/ 0.772



XPSATR●●●●P



XPSATR●●●●C



Operating principle

Safety modules **XPSAV** are used for monitoring Emergency stop circuits conforming to standards EN/ISO 13850 and EN/IEC 60204-1 and also meet the safety requirements for the electrical monitoring of switches in protection devices conforming to standard EN/ISO 14119.

They provide protective for both the machine operator and the machine by immediately stopping the dangerous movement on receipt of a stop instruction from the operator, or on detection of a fault in the safety circuit itself.

In addition to the stop category 0 instantaneous opening safety outputs (3 for **XPSAV**), the modules incorporate stop category 1 time delay outputs (3 for **XPSAV**) which allow for controlled deceleration of the motor components until a complete stop is achieved (for example, motor braking by variable speed drive).

At the end of the preset delay, the supply is disconnected by opening the time delay output circuits.

- The time delay of the 3 output circuits is adjustable, in 15 preset values, between 0 and 300 seconds using selector buttons.
- Module **XPSAV** also incorporates 3 solid-state signalling outputs for signalling to the process PLC.
- To aid diagnostics, the modules have LEDs which provide information on the monitoring circuit status.
- The Start button monitoring function is configurable depending on the wiring.

Maximum achievable safety level

- PL e/Category 4 conforming to EN/ISO 13849-1
- SILCL3 conforming to EN/IEC 61508 and EN/IEC 62061

Product certifications

- UL
- CSA
- TÜV

References

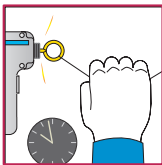
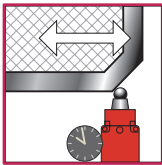
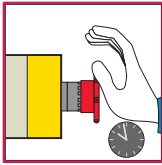
Description	Connection	Number of safety circuits	Additional outputs	Setting range of time delay	Supply	Reference	Weight kg/lb
Safety modules for Emergency stop and switch monitoring	Captive screw clamp terminals Terminal block integrated in module	6 NO (3 NO time delay)	3 solid-state	0...300 s	~ 24 V	XPSAV11113	0.320/ 0.705
	Captive screw clamp terminals Terminal block removable from module	6 NO (3 NO time delay)	3 solid-state	0...300 s	~ 24 V	XPSAV11113P	0.320/ 0.705
	Captive screw clamp terminals Terminal block integrated in module	6 NO (3 NO time delay)	3 solid-state	0...300 s (Start delay 0,5 s)	~ 24 V	XPSAV11113T050	0.320/ 0.705
	Captive screw clamp terminals Terminal block integrated in module	6 NO (3 NO time delay)	3 solid-state	0.1 ... 2 s	~ 24 V	XPSAV11113Z002	0.320/ 0.705



XPSAV11113



XPSAV11113P



Operating principle

Safety modules **XPSATE** are used for monitoring Emergency stop circuits conforming to standards EN/ISO 13850 and EN/IEC 60204-1 and also meet the safety requirements for the electrical monitoring of switches in protection devices conforming to standard EN/ISO 14119.

They provide protective for both the machine operator and the machine by immediately stopping the dangerous movement on receipt of a stop instruction from the operator, or on detection of a fault in the safety circuit itself. In addition to the stop category 0 instantaneous opening safety outputs (2 for **XPSATE**), the modules incorporate stop category 1 time delay outputs (3 for **XPSATE**) which allow for controlled deceleration of the motor components until a complete stop is achieved (for example, motor braking by variable speed drive). At the end of the preset delay, the supply is disconnected by opening the time delay output circuits.

- The time delay of the 3 output circuits is adjustable between 0 and 30 seconds using a 12-position selector switch.
- Module **XPSATE** incorporates 4 solid-state signalling outputs for signalling to the process PLC.
- To aid diagnostics, the modules have LEDs which provide information on the monitoring circuit status.
- The Start button monitoring function is configurable depending on the wiring.

Maximum achievable safety level

- PL e/Category 4 (instantaneous safety outputs) and PL d/Category 3 (time delay safety outputs) conforming to EN/ISO 13849-1
- SILCL3 (instantaneous safety outputs) and SILCL2 (time delay safety outputs) conforming to EN/IEC 61508 and EN/IEC 62061

Product certifications

- UL
- CSA
- TÜV

References

Description	Connection	Number of safety circuits	Additional outputs	Setting range of time delay	Supply	Reference	Weight kg/lb
Safety modules for Emergency stop and switch monitoring	Captive screw clamp terminals	5 NO (3 NO time delay)	4 solid-state	0...30 s	~ and $\overline{\overline{}}$ 24 V	XPSATE5110	0.280/ 0.617
	Terminal block integrated in module						
	Captive screw clamp terminals	5 NO (3 NO time delay)	4 solid-state	0...30 s	~ and $\overline{\overline{}}$ 24 V	XPSATE5110P	0.280/ 0.617
	Terminal block removable from module						
	Captive screw clamp terminals	5 NO (3 NO time delay)	4 solid-state	0...30 s	~ 115 V	XPSATE3410	0.380/ 0.838
	Terminal block integrated in module						
	Captive screw clamp terminals	5 NO (3 NO time delay)	4 solid-state	0...30 s	~ 115 V	XPSATE3410P	0.380/ 0.838
	Terminal block removable from module						
Captive screw clamp terminals	5 NO (3 NO time delay)	4 solid-state	4 solid-state	0...30 s	~ 230 V	XPSATE3710	0.380/ 0.838
Terminal block integrated in module							
Captive screw clamp terminals	5 NO (3 NO time delay)	4 solid-state	4 solid-state	0...30 s	~ 230 V	XPSATE3710P	0.380/ 0.838
Terminal block removable from module							



XPSATE5110

X	
XPSABV11330C	4
XPSABV11330P	4
XPSABV1133C	4
XPSABV1133P	4
XPSATE3410	7
XPSATE3410P	7
XPSATE3710	7
XPSATE3710P	7
XPSATE5110	7
XPSATE5110P	7
XPSATR11530C	5
XPSATR11530P	5
XPSATR1153C	5
XPSATR1153P	5
XPSATR39530C	5
XPSATR39530P	5
XPSATR3953C	5
XPSATR3953P	5
XPSAV11113	6
XPSAV11113P	6
XPSAV11113T050	6
XPSAV11113Z002	6



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