

# Harmony XPS

## Universal safety modules

Type **XPSUAB**, for monitoring Emergency stop, Antivalent contact, Guard switch, Magnetic switch, Proximity safety switch, PNP sensor, RFID safety switch, Safety light curtain or Two-hand control station

### Main features

Start inputs	Automatic, manual & monitored start
Safety input	1
Control outputs	2 ON/OFF configurable pulsed outputs
Safety outputs	1 single changeover output
Diagnostic outputs	1 solid state diagnostic output with complete status information
Connection type	Removable terminal blocks
Safe expansion connection	No
Terminals	16
Module width	22.5 mm/0.886 in.
Maximum achievable safety level	<ul style="list-style-type: none"> <li>■ PL c/Category 1 conforming to ISO 13849-1</li> <li>■ SILCL 1 conforming to IEC 62061</li> <li>■ SIL 1 conforming to IEC 61508</li> </ul>
Product certifications	<ul style="list-style-type: none"> <li>■ cULus</li> <li>■ TÜV</li> <li>■ EAC</li> <li>■ CCC</li> <li>■ KC marking</li> </ul>
Conformity to standards	<ul style="list-style-type: none"> <li>■ IEC 60947-5-1</li> <li>■ IEC 61508-1 (functional safety standard)</li> <li>■ IEC 61508-2 (functional safety standard)</li> <li>■ IEC 61508-3 (functional safety standard)</li> <li>■ ISO 13849-1 (functional safety standard)</li> <li>■ IEC 62061 (functional safety standard)</li> </ul>

### References

Description	Voltage	Terminals mm/in.	References	Weight kg/lb
<b>Type XPSUAB</b> for monitoring:	24 V ~/—	Spring 5.08/0.20	<a href="#">XPSUAB1CC</a>	0.200 0.440
- Emergency stop				
- Antivalent contact				
- Guard switch		Screw 5.08/0.20	<a href="#">XPSUAB1CP</a>	0.200 0.440
- Magnetic switch				
- Proximity safety switch				
- PNP sensor				
- RFID safety switch				
- Safety light curtain	48-240 V ~/—	Spring 5.08/0.20	<a href="#">XPSUAB3CC</a>	0.200 0.440
- Two-hand control station				
		Screw 5.08/0.20	<a href="#">XPSUAB3CP</a>	0.200 0.440



XPSUAB1CC

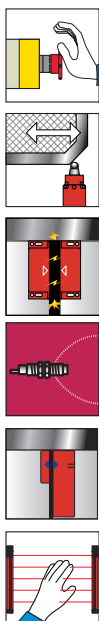


XPSUAB1CP

# Harmony XPS

## Universal safety modules

Type **XPSUAF**, for monitoring Emergency stop, Guard switch, Magnetic switch, Proximity safety switch, PNP sensor, RFID safety switch or Safety light curtain



### Operating principle

**XPSUAF** safety modules are used for providing 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 an issue in the safety circuit itself.

**XPSUAF** safety modules are used for monitoring:

- Emergency stop circuits conforming to standard ISO 13850
- Switches activated by protection devices conforming to standard ISO 14119:
  - Mechanical guard switches
  - Magnetic switch with antivalent or 2 NC contacts
  - Proximity safety switch with Antivalent contact
  - PNP sensor
  - RFID safety switch
- Type 4 light curtains conforming to IEC 61496-1 having solid-state safety outputs with test function

- The safety functions and the start function are selectable and can be configured by selector switches on the front face.
- A solid-state diagnostic output with complete status information facilitates maintenance.
- To monitor a higher number of Antivalent contacts using this safety module, the Antivalent contact can be connected with a NC in series and NO in parallel.
- 6 LEDs on the front face provide information on the monitoring circuit status, and aid diagnostics.

### Main features

Start inputs	Automatic, manual & monitored start
Safety inputs	2
Control outputs	3 ON/OFF configurable pulsed outputs
Safety outputs	3 NO
Diagnostic outputs	1 solid state diagnostic output with complete status information
Connection type	Removable terminal blocks
Safe expansion connection	Yes
Terminals	16
Module width	22.5 mm/0.886 in.
Maximum achievable safety level	<ul style="list-style-type: none"> <li>■ PL e/Category 4 conforming to ISO 13849-1</li> <li>■ SILC L 3 conforming to IEC 62061</li> <li>■ SIL 3 conforming to IEC 61508</li> </ul>
Product certifications	<ul style="list-style-type: none"> <li>■ cULus</li> <li>■ TÜV</li> <li>■ EAC</li> <li>■ CCC</li> <li>■ KC marking</li> </ul>
Conformity to standards	<ul style="list-style-type: none"> <li>■ IEC 60947-5-1</li> <li>■ IEC 61508-1 (functional safety standard)</li> <li>■ IEC 61508-2 (functional safety standard)</li> <li>■ IEC 61508-3 (functional safety standard)</li> <li>■ ISO 13849-1 (functional safety standard)</li> <li>■ IEC 62061 (functional safety standard)</li> </ul>

### References

Description	Voltage	Terminals mm/in.	References	Weight kg/lb
<b>Type XPSUAF</b> for monitoring: - Emergency stop - Guard switch - Magnetic switch - Proximity safety switch - PNP sensor	24 V ~/∞	Spring 5.08/0.20	<a href="#">XPSUAF13AC</a>	0.200 0.440
		Screw 5.08/0.20	<a href="#">XPSUAF13AP</a>	0.200 0.440
- RFID safety switch - Safety light curtain	48-240 V ~/∞	Spring 5.08/0.20	<a href="#">XPSUAF33AC</a>	0.200 0.440
		Screw 5.08/0.20	<a href="#">XPSUAF33AP</a>	0.200 0.440



XPSUAF3AC



XPSUAF3AP

# Harmony XPS

## Universal safety modules

Type **XPSUAK**, for monitoring Emergency stop, Guard switch, Magnetic switch, Proximity safety switch, PNP & NPN sensors, RFID safety switch, Safety light curtain or Sensing mat/edge



### Operating principle

**XPSUAK** safety modules 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 an issue in the safety circuit itself.

**XPSUAK** safety modules are used for monitoring:

- Emergency stop circuits conforming to standard ISO 13850
- Switches activated by protection devices conforming to standard ISO 14119:
  - Mechanical guard switches
  - Magnetic switch with antivalent or 2 NC contacts
  - Proximity safety switch with Antivalent contact
  - Sensor pair
  - 1 PNP + 1 NPN sensor
  - RFID safety switch
- Type 4 light curtains conforming to IEC 61496-1 having solid-state safety outputs with test function
- 4-wire sensing mats or edges conforming to ISO 13856

- The safety functions and the start function are selectable and can be configured by selector switches on the front face.
- A solid-state diagnostic output with complete status information facilitates maintenance.
- To monitor a higher number of Antivalent contacts using this safety module, the Antivalent contact can be connected with a NC in series and NO in parallel.
- 6 LEDs on the front face provide information on the monitoring circuit status, and aid diagnostics.

### Main features

Start inputs	Automatic, manual & monitored start
Safety inputs	2
Control outputs	3 ON/OFF configurable pulsed outputs
Safety outputs	2 NO + 1 NC
Diagnostic outputs	1 solid state diagnostic output with complete status information
Connection type	Removable terminal blocks
Safe expansion connection	Yes
Terminals	20
Module width	22.5 mm/0.886 in.
Maximum achievable safety level	<ul style="list-style-type: none"> <li>■ PL e/Category 4 conforming to ISO 13849-1</li> <li>■ SILC L 3 conforming to IEC 62061</li> <li>■ SIL 3 conforming to IEC 61508</li> </ul>
Product certifications	<ul style="list-style-type: none"> <li>■ cULus</li> <li>■ TÜV</li> <li>■ EAC</li> <li>■ CCC</li> <li>■ KC marking</li> </ul>
Conformity to standards	<ul style="list-style-type: none"> <li>■ IEC 60947-5-1</li> <li>■ IEC 61508-1 (functional safety standard)</li> <li>■ IEC 61508-2 (functional safety standard)</li> <li>■ IEC 61508-3 (functional safety standard)</li> <li>■ ISO 13849-1 (functional safety standard)</li> <li>■ IEC 62061 (functional safety standard)</li> </ul>

### References

Description	Voltage	Terminals mm/in.	References	Weight kg/lb
<b>Type XPSUAK</b> for monitoring:	24 V ~/∞	Spring	<a href="#">XPSUAK12AC</a>	0.200 0.440
		5.08/0.20		
- Emergency stop	48-240 V ~/∞	Screw	<a href="#">XPSUAK12AP</a>	0.200 0.440
- Guard switch		5.08/0.20		
- Magnetic switch		Spring	<a href="#">XPSUAK32AC</a>	0.200 0.440
- Proximity safety switch		5.08/0.20		
- PNP & NPN sensor	Screw	5.08/0.20	<a href="#">XPSUAK32AP</a>	0.200 0.440
- RFID safety switch				
- Safety light curtain				
- Sensing mat/edge				



XPSUAK●2AC



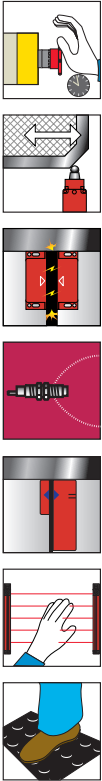
XPSUAK●2AP

## Operating principle, main features, references

# Harmony XPS

## Universal safety modules

Type **XPSUAT**, for monitoring Emergency stop, Guard switch, Magnetic switch, Proximity safety switch, PNP & NPN sensor, RFID safety switch, Safety light curtain or Sensing mat/edge



### Operating principle

**XPSUAT** safety modules provide protection for both the operator and the machine by immediately stopping the dangerous movement on receipt of a stop instruction from the operator, or on detection of an issue in the safety circuit itself.

**XPSUAT** safety modules are used for monitoring:

- Emergency stop circuits conforming to standard ISO 13850.
- Switches activated by protection devices conforming to standard ISO 14119:
  - Mechanical guard switches
  - Magnetic switch with antivalent or 2 NC contacts
  - Proximity safety switch with Antivalent contact
  - PNP Sensor
  - 1 PNP + 1 NPN Sensor
  - RFID safety switch
- Type 4 light curtains conforming to IEC 61496-1 having solid-state safety outputs with test function.
- 4-wire sensing mats or edges conforming to ISO 13856.
- In addition to the stop category 0 instantaneous opening safety outputs, the **XPSUAT** safety modules incorporate stop category 1 time delay outputs which allow controlled deceleration of the motor to a complete stop (for example, motor braking by variable speed drive). At the end of the preset delay, the supply is disconnected by opening the time delayed output circuits. Also the time delay from 0 s to 15 min (900 s) can be selected by selector switches on the front face.
  - The safety functions and the start function are selectable and can be configured by selector switches on the front face.
  - A solid-state diagnostic output with complete status information facilitates maintenance.
  - To monitor a higher number of Antivalent contacts using this safety module, the Antivalent contact can be connected with a NC in series and NO in parallel.
  - 8 LEDs on the front face provide information on the monitoring circuit status, and aid diagnostics.

### Main features

Start inputs	Automatic, manual & monitored start
Safety inputs	2 positive safety inputs 24 VDC, 1 negative safety input
Control outputs	4 ON/OFF configurable pulsed outputs
Safety outputs	3 NO immediate + 3 NO configurable + 1 NC configurable
Diagnostic outputs	<ul style="list-style-type: none"> <li>■ 1 solid state diagnostic output for time delay ending</li> <li>■ 1 solid state diagnostic output with complete status information</li> </ul>
Connection type	Removable terminal blocks
Safe expansion connection	Yes
Terminals	27
Module width	45 mm/1.77 in.
Time delay setting	0 s to 15 min. The delay is configured with the delay base selector and the delay factor selector
Maximum achievable safety level	<ul style="list-style-type: none"> <li>■ PL e/Category 4 conforming to ISO 13849-1</li> <li>■ SILCL 3 conforming to IEC 62061</li> <li>■ SIL 3 conforming to IEC 61508</li> </ul>
Product certifications	<ul style="list-style-type: none"> <li>■ cULus</li> <li>■ TÜV</li> <li>■ EAC</li> <li>■ CCC</li> <li>■ KC marking</li> </ul>
Conformity to standards	<ul style="list-style-type: none"> <li>■ IEC 60947-5-1</li> <li>■ IEC 61508-1 (functional safety standard)</li> <li>■ IEC 61508-2 (functional safety standard)</li> <li>■ IEC 61508-3 (functional safety standard)</li> <li>■ ISO 13849-1 (functional safety standard)</li> <li>■ IEC 62061 (functional safety standard)</li> </ul>

### References

Description	Setting range of Voltage	Terminals	References	Weight	
	time delay	mm/in.		kg/lb	
<b>Type XPSUAT</b> for monitoring	0...900 s	24 V ~/∞	Spring	<b>XPSUAT13A3AC</b>	0.350 0.770
			5.08/0.20		
- Emergency stop - Guard switch - Magnetic switch - Proximity safety switch			Screw	<b>XPSUAT13A3AP</b>	0.350 0.770
			5.08/0.20		
- PNP & NPN sensor - RFID safety switch - Safety light curtain - Sensing mat/edge		48-240 V ~/∞	Spring	<b>XPSUAT33A3AC</b>	0.350 0.770
			5.08/0.20		
			Screw	<b>XPSUAT33A3AP</b>	0.350 0.770
			5.08/0.20		



XPSUAT3A3AC

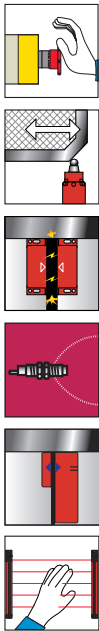


XPSUAT3A3AP

# Harmony XPS

## Universal safety modules

Type **XPSUDN**, for monitoring Emergency stop, Guard switch, Magnetic switch, Proximity safety switch, PNP sensor, RFID safety switch or safety light curtain



### Operating principle

**XPSUDN** safety modules are used for monitoring:

- Emergency stop circuits conforming to standard ISO 13850
- Switches activated by protection devices conforming to standard ISO 14119:
  - Mechanical guard switches
  - Magnetic switch with antivalent or 2 NC contacts
  - Proximity safety switch with Antivalent contact
  - PNP Sensor
  - RFID safety switch
- Type 4 light curtains conforming to IEC 61496-1 having solid-state safety outputs with test function

- The safety functions and the start function are selectable and can be configured by selector switches on the front face.
- A solid-state diagnostic output with complete status information facilitates maintenance.
- To monitor a higher number of Antivalent contacts using this safety module, the Antivalent contact can be connected with a NC in series and NO in parallel.
- 16 LEDs on the front face provide information on the monitoring circuit status, and aid diagnostics.

### Main features

Start inputs	Automatic, manual & monitored start
Safety inputs	6
Control outputs	7 ON/OFF configurable pulsed outputs
Safety outputs	3 NO + 1 NC
Diagnostic outputs	1 solid-state diagnostic output with complete status information
Connection type	Removable terminal blocks
Safe expansion connection	Yes
Terminals	32
Module width	45 mm / 1.77 in.
Maximum achievable safety level	<ul style="list-style-type: none"> <li>■ PL e/Category 4 conforming to ISO 13849-1</li> <li>■ SILCL 3 conforming to IEC 62061</li> <li>■ SIL 3 conforming to IEC 61508</li> </ul>
Product certifications	<ul style="list-style-type: none"> <li>■ cULus</li> <li>■ TÜV</li> <li>■ EAC</li> <li>■ CCC</li> <li>■ KC marking</li> </ul>
Conformity to standards	<ul style="list-style-type: none"> <li>■ IEC 60947-5-1</li> <li>■ IEC 61508-1 (functional safety standard)</li> <li>■ IEC 61508-2 (functional safety standard)</li> <li>■ IEC 61508-3 (functional safety standard)</li> <li>■ ISO 13849-1 (functional safety standard)</li> <li>■ IEC 62061 (functional safety standard)</li> </ul>

### References

Description	Voltage	Terminals mm/in.	References	Weight kg/lb
<b>Type XPSUDN</b> for monitoring	24 V ~/—	Spring 5.08/0.20	<a href="#">XPSUDN13AC</a>	0.350 0.770
		Screw 5.08/0.20	<a href="#">XPSUDN13AP</a>	0.350 0.770
- Emergency stop - Guard switch - Magnetic switch - Proximity safety switch - PNP sensor - RFID safety switch - Safety light curtain	48-240 V ~/—	Spring 5.08/0.20	<a href="#">XPSUDN33AC</a>	0.350 0.770
		Screw 5.08/0.20	<a href="#">XPSUDN33AP</a>	0.350 0.770



XPSUDN3AC

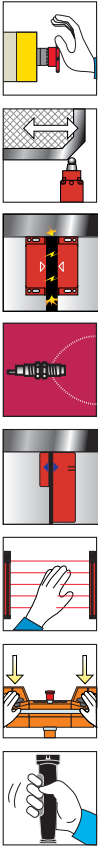


XPSUDN3AP

# Harmony XPS

## Universal safety modules

**Type XPSUS**, for monitoring Emergency stop, Guard switch, Magnetic switch, Proximity safety switch, PNP sensor, RFID safety switch, Safety light curtain, Two-hand control station or Enabling switch



### Operating principle

**XPSUS** safety modules are designed to monitor two hand control stations IIIA or IIIC which must comply with International standard ISO 13851. The control stations must be designed and installed so that they cannot be activated involuntarily or easily rendered inoperative. Depending on the application, the requirements of type C standards specific to the machinery involved must be met (additional personal protection methods may have to be considered).

To initiate a dangerous movement, both operators (two-hand control pushbuttons) must be activated within an interval of 0.5 s (synchronous activation). If one of the two pushbuttons is released during a dangerous operation, the control sequence is cancelled. Resuming the dangerous operation is possible only if both pushbuttons are returned to their initial position and reactivated within the required time interval. The safety distance between the control units and the hazardous zone must be enough to ensure that when only one operator is released, the hazardous zone cannot be reached before the dangerous movement has been completed or stopped.

- With automatic, manual & monitored start, **XPSUS** safety modules are used for monitoring:
  - 2 Emergency stop circuits conforming to standard ISO 13850
  - Switches activated by protection devices conforming to standard ISO 14119:
    - 2 mechanical guard switches
    - 2 magnetic switches with Antivalent contact or 2 NC contacts
    - 2 proximity safety switches with Antivalent contact
    - 2 independent PNP sensors
    - 2 RFID safety switches
  - Type 4 light curtains conforming to IEC 61496-1 having solid-state safety outputs with test function
- With automatic start only, **XPSUS** safety modules are used for monitoring one two-hand control IIIA, IIIC or enabling switch.

- The safety functions and the start function are selectable and can be configured by selector switches on the front face.
- A solid-state diagnostic output with complete status information facilitates maintenance.
- To monitor a higher number of Antivalent contacts using these safety modules, the Antivalent contact can be connected with a NC in series and NO in parallel.
- 8 LEDs on the front face provide information on the monitoring circuit status, and aid diagnostics.

### Selection

Requirements of standard ISO 13851		Type I	Type II	Type III		
				A	B	C
Standard ISO 13851 defines the selection of two-hand controls according to its behavior.  This table details the 3 types of two-hand control conforming to ISO 13851.  For each type, it lists the operating characteristics and minimum requirements.	Use of both hands (simultaneous action)					
	Link between input and output signals					
	Prevention of accidental operation					
	Tamper-proof					
	Output signal reinitialised					
	Synchronous action (specified time limit)					
	Use of proven components (Category 1 conforming to ISO 13849-1)			XPSUAB		
	Redundancy with partial error detection (Category 3 conforming to ISO 13849-1)				XPSUS	
	Redundancy + Self-monitoring (Category 4 conforming to ISO 13849-1)					XPSUS
	Two-hand control station	XY2SB (1)				

Conforming to ISO 13849-1

Conforming to ISO 13851

(1) Please consult ["Two-hand ergonomic control stations XY2SB" Catalog](#).



# Harmony XPS

## Universal safety modules

Type **XPSUS**, for monitoring Emergency stop, Guard switch, Magnetic switch, Proximity safety switch, PNP sensor, RFID safety switch, Safety light curtain, Two-hand control station or Enabling switch

### Main features

Start inputs	Automatic, manual & monitored start
Safety inputs	2
Control outputs	3 ON/OFF configurable pulsed outputs
Safety outputs	2 NO
Diagnostic outputs	1 solid-state diagnostic output with complete status information
Connection type	Removable terminal blocks
Safe expansion connection	Yes
Terminals	16
Module width	22.5 mm/0.886 in.
Maximum achievable safety level	<ul style="list-style-type: none"> <li>■ PL e/Category 4 conforming to ISO 13849-1</li> <li>■ SILCL 3 conforming to IEC 62061</li> <li>■ SIL 3 conforming to IEC 61508</li> </ul>
Product certifications	<ul style="list-style-type: none"> <li>■ cULus</li> <li>■ TÜV</li> <li>■ EAC</li> <li>■ CCC</li> <li>■ KC marking</li> </ul>
Conformity to standards	<ul style="list-style-type: none"> <li>■ IEC 60947-5-1</li> <li>■ IEC 61508-1 (functional safety standard)</li> <li>■ IEC 61508-2 (functional safety standard)</li> <li>■ IEC 61508-3 (functional safety standard)</li> <li>■ ISO 13849-1 (functional safety standard)</li> <li>■ IEC 62061 (functional safety standard)</li> </ul>

### References

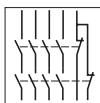
Description	Voltage	Terminals mm/in.	References	Weight kg/lb
<b>Type XPSUS</b> for monitoring: - Emergency stop - Guard switch - Magnetic switch - Proximity safety switch - PNP sensor - RFID safety switch - Safety light curtain - Two-hand control station - Enabling switch	24 V ~/☐	Spring 5.08/0.20	<a href="#">XPSUS12AC</a>	0.200 0.440
		Screw 5.08/0.20	<a href="#">XPSUS12AP</a>	0.200 0.440
	48-240 V ~/☐	Spring 5.08/0.20	<a href="#">XPSUS32AC</a>	0.200 0.440
		Screw 5.08/0.20	<a href="#">XPSUS32AP</a>	0.200 0.440



XPSUS-2AC



XPSUS-2AP



### Operating principle

**XPSUEP** safety modules are used for extending the number of safety output contacts of XPS Universal safety modules.

**XPSUEP** are available as additions to base modules (Emergency stop, limit switch, two-hand control, etc.).

**XPSUEP** can be only used with **XPSUAF**, **XPSUAK**, **XPSUAT**, **XPSUDN** and **XPSUS** safety modules. When **XPSUAT** is the base module for instance, its configuration is used to choose whether the **XPSUEP**'s outputs follow **XPSUAT**'s immediate or time delayed outputs.

- 3 LEDs on the front face provide information on the monitoring circuit status, and aid diagnostics.

### Main features

Start input	Follows the host module
Safety inputs	0, Extension bus
Safety outputs	4 NO + 2 single NC
Connection	Connection to base module by connector
Diagnostic outputs	1 solid-state diagnostic output with complete status information
Connection type	Removable terminal blocks
Terminals	16
Module width	22.5 mm/0.886 in.
Maximum achievable safety level	<ul style="list-style-type: none"> <li>■ PL e/Category 4 conforming to ISO 13849-1</li> <li>■ SILCL 3 conforming to IEC 62061</li> <li>■ SIL 3 conforming to IEC 61508</li> </ul>
Product certifications	<ul style="list-style-type: none"> <li>■ cULus</li> <li>■ TÜV</li> <li>■ EAC</li> <li>■ CCC</li> <li>■ KC marking</li> </ul>
Conformity to standards	<ul style="list-style-type: none"> <li>■ IEC 60947-5-1</li> <li>■ IEC 61508-1 (functional safety standard)</li> <li>■ IEC 61508-2 (functional safety standard)</li> <li>■ IEC 61508-3 (functional safety standard)</li> <li>■ ISO 13849-1 (functional safety standard)</li> <li>■ IEC 62061 (functional safety standard)</li> </ul>

### References

Description	Compatible with	Voltage	Terminals mm/in.	References	Weight kg/lb
<b>Type XPSUEP</b> For Extending the number of safety contacts	XPSUAF XPSUAK XPSUAT XPSUDN XPSUS	24 V ~/☐	Spring 5.08/0.20	<a href="#">XPSUEP14AC</a>	0.200 0.440
			Screw 5.08/0.20	<a href="#">XPSUEP14AP</a>	0.200 0.440
		48-240 V ~/☐	Spring 5.08/0.20	<a href="#">XPSUEP34AC</a>	0.200 0.440
			Screw 5.08/0.20	<a href="#">XPSUEP34AP</a>	0.200 0.440



XPSUEP-4AC



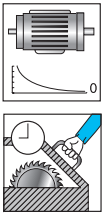
XPSUEP-4AP



# Harmony XPS

## Universal safety modules

Type **XPSUVN**, for Zero speed monitoring with delayed access to dangerous area



### Operating principle

**XPSUVN** is a safety module for interruption of safety-related electrical circuits. **XPSUVN** provides for sensorless standstill monitoring of a motor, and measures the residual voltage that is generated by remanent magnetization after power to the motor is removed and while it coasts down. The voltage is measured via an analog voltage measuring input to determine when standstill has actually been reached. This can be used to implement a safety related function such as controlling an interlocking device with guard locking.

The following types of motors which generate a measurable residual voltage when coasting down after power supply has been removed can be connected to the safety-related input of the device:

- Three-phase AC motors
- Single-phase AC motors
- DC motors
- Three-phase AC motors with star-delta wiring

**XPSUVN** safety module can monitor motors that are operated via mains as well as motors that are controlled by electronic motor control equipment such as frequency inverters.

In addition, **XPSUVN** safety module uses an adjustable activation delay. The activation delay is the period between the point in time at which the measured voltage drops below the adjusted voltage threshold and the point in time at which activation of the safety-related outputs is triggered;

- The Voltage threshold and the Activation delay can be configured by selector switches on front face.
- To aid diagnostics, **XPSUVN** modules have 2 solid-state outputs to provide information on the status of the zero speed detection circuit
- 5 LEDs on the front face provide information on the monitoring circuit status, and aid diagnostics.

### Main features

Start input	Automatic
Safety inputs	3
Control outputs	-
Safety outputs	1 NO (configurable) 0,5...60 s
Diagnostic outputs	2
Connection type	Removable terminal blocks
Safe expansion connection	Yes
Terminals	16
Module width	22.5 mm/0.886 in.
Time delay setting	0.5 s, 1 s, 2 s, 3 s, 5 s, 8 s, 12 s, 20 s, 35 s, 60 s
Voltage threshold selector:	50...500 mV
Maximum achievable safety level	<ul style="list-style-type: none"> <li>■ PL e/Category 3 conforming to ISO 13849-1</li> <li>■ SILCL 3 conforming to IEC 62061</li> <li>■ SIL 3 conforming to IEC 61508</li> </ul>
Product certifications	<ul style="list-style-type: none"> <li>■ cULus</li> <li>■ TÜV</li> <li>■ EAC (in progress)</li> <li>■ CCC (in progress)</li> <li>■ KC marking (in progress)</li> </ul>
Conformity to standards	<ul style="list-style-type: none"> <li>■ IEC 60947-5-1</li> <li>■ IEC 61508-1 (functional safety standard)</li> <li>■ IEC 61508-2 (functional safety standard)</li> <li>■ IEC 61508-3 (functional safety standard)</li> <li>■ ISO 13849-1 (functional safety standard)</li> <li>■ IEC 62061 (functional safety standard)</li> </ul>

### References

Description	Setting range of time delay	Voltage	Terminals mm/in.	References	Weight kg/lb
<b>Type XPSUVN</b> For zero speed monitoring with delayed access to dangerous area	0.5...60 s	24 V ~/∞	Spring	<b>XPSUVN11AC</b>	0.200
			Screw	<b>XPSUVN11AP</b>	0.200
		48-240 V ~/∞	Spring	<b>XPSUVN31AC</b>	0.200
			Screw	<b>XPSUVN31AP</b>	0.200



XPSUVN-1AC



XPSUVN-1AP