



## Main

Range of product	Preventia Safety automation
Product or component type	Safety controller with pre-defined function
Safety module name	XPSMP
Safety module application	2 independent functions
Safety use category	Category 4 maximum conforming to EN/IEC 60954-1
Type of start	Automatic or unmonitored (configuration 1) Automatic or unmonitored (configuration 10) Automatic or unmonitored (configuration 11) Automatic or unmonitored (configuration 14) Automatic or unmonitored (configuration 3) Automatic or unmonitored (configuration 5) Automatic or unmonitored (configuration 7) Monitored (configuration 12) Monitored (configuration 13) Monitored (configuration 15) Monitored (configuration 2) Monitored (configuration 4) Monitored (configuration 6) Monitored (configuration 8) Monitored (configuration 9)
Checks	Configuration (configuration 10) Configuration (configuration 13) Configuration (configuration 3) Configuration (configuration 4) Configuration (configuration 5) Configuration (configuration 6) Configuration (configuration 9)
Standards	DIN V VDE 801 + A1 EN/IEC 60204-1 EN/IEC 60947-1 + A11 EN/IEC 60947-5-1
Product certifications	BIA CSA UL
[Us] rated supply voltage	24 V DC (- 20...20 %)
Connections - terminals	Captive screw clamp terminals: 0.14...0.75 mm <sup>2</sup> , 2 wires flexible without cable end Captive screw clamp terminals: 0.14...0.75 mm <sup>2</sup> , 2 wires solid without cable end Captive screw clamp terminals: 0.14...2.5 mm <sup>2</sup> , 1 wire flexible without cable end Captive screw clamp terminals: 0.14...2.5 mm <sup>2</sup> , 1 wire solid without cable end Captive screw clamp terminals: 0.25...1 mm <sup>2</sup> , 2 wires flexible with cable end, without bezel Captive screw clamp terminals: 0.25...1.5 mm <sup>2</sup> , 1 wire flexible with cable end, with bezel Captive screw clamp terminals: 0.25...2.5 mm <sup>2</sup> , 1 wire flexible with cable end, without bezel Captive screw clamp terminals: 0.5...1.5 mm <sup>2</sup> , 2 wires flexible with cable end, with double bezel
Safety level	Can reach SIL 3 conforming to EN/IEC 62061 Can reach PL e/category 4 conforming to EN/ISO 13849-1

## Complementary

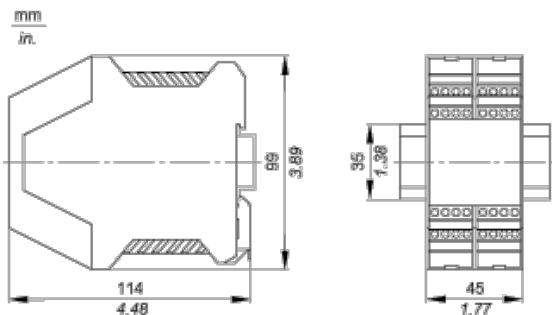
Function of module	Configuration 0: functions disabled (factory setting) Configuration 1: emergency stop monitoring 1-channel wiring, category 2 Configuration 10: enabling grip switch monitoring (3-position switch), category 4 Configuration 11: sensing mat and edges monitoring, category 3 Configuration 12: sensing mat and edges monitoring, category 3 Configuration 13: relay output safety light curtain monitoring, category 4
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	Configuration 14: coded magnetic switch monitoring, category 4 Configuration 15: coded magnetic switch monitoring, category 4 Configuration 2: emergency stop monitoring 1-channel wiring, category 2 Configuration 3: emergency stop monitoring 2-channel wiring, or guard monitoring, category 4 Configuration 4: emergency stop monitoring 2-channel wiring, or guard monitoring, category 4 Configuration 5: emergency stop monitoring 2-channel wiring, or guard monitoring, category 4 Configuration 6: emergency stop monitoring 2-channel wiring, or guard monitoring, category 4 Configuration 7: emergency stop monitoring 2-channel wiring, or guard monitoring, category 4 Configuration 8: emergency stop monitoring 2-channel wiring, or guard monitoring, category 4 Configuration 9: guard monitoring for injection presses and blowing machines, category 4
Synchronisation time between inputs	0.5 s (configuration 13) 1.5 s (configuration 14) 1.5 s (configuration 15) 1.5 s (configuration 5) 1.5 s (configuration 6) 1.5 s (configuration 9) Unlimited (configuration 3) Unlimited (configuration 4) Unlimited (configuration 7) Unlimited (configuration 8)
Power consumption in W	<= 5 W
Input protection type	Internal, electronic
[Uc] control circuit voltage	24 V
Line resistance	100 Ohm 2000 m
Number of safety circuits	3 NO relays per function (6 NO total), volt-free
Number of additional circuits	3 solid state outputs
Breaking capacity	C300 : holding 180 VA AC-15 for relay output C300 : inrush 1800 VA AC-15 for relay output
Breaking capacity	20 mA / 24 V for static output circuit 1.5 A / 24 V - L/R = 50 ms, DC-13 for relay output
Output thermal current	2 A for 1 output and 4 A for the other 2 outputs for relay 3.3 A for all 3 outputs relay simultaneously 6 A for 1 output and 2 A for the other 2 outputs for relay
[Ith] conventional free air thermal current	<= 20 A
Associated fuse rating	4 A gG for relay output conforming to EN/IEC 60947-5-1, DIN VDE 0660 part 200 6 A fast blow for relay output conforming to EN/IEC 60947-5-1, DIN VDE 0660 part 200
Minimum output current	10 mA for relay output
Minimum output voltage	17 V for relay output
Response time on input open	< 30 ms
[Ui] rated insulation voltage	300 V, degree of pollution 2 conforming to EN/IEC 60947-5-1, DIN VDE 0110 parts 1 & 2
[Uiimp] rated impulse withstand voltage	4 kV overvoltage category III conforming to EN/IEC 60947-5-1, DIN VDE 0110 parts 1 & 2
Local signalling	12 LEDs
Mounting support	35 mm symmetrical DIN rail
Depth	114 mm
Height	99 mm
Width	45 mm
Product weight	0.32 kg

## Environment

IP degree of protection	IP20 (terminals) IP40 (enclosure)
ambient air temperature for operation	-10...55 °C
ambient air temperature for storage	-25...85 °C

## Dimensions



## Wiring Diagrams

### Refer to the Instruction Sheet

To download the instruction sheet, follow below procedure:

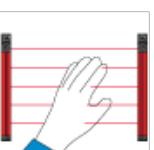
The screenshot shows the product page for the XPSAC5121. On the left, there is a sidebar with a red button labeled "Discover XPSAC5121 by" containing links for Characteristics, Dimensions Drawings, Connections and Schema, Technical Description, and Download & Documents. The "Download & Documents" link is highlighted with a red circle and a number 1. In the center, there is a large image of the module. Below it, a red box highlights the "Instruction sheet" link, which is also circled with a red number 2. To the right of the image, there is a table with three rows: "XPSAC... Safety module for emergency stop and switch monitoring" (English 2012-07-04, pdf 29), "Emergency stop and switch monitoring" (2010-11-10, Select), and "Russian certificate" (English 2010-07-07, pdf 601).

1 Click on **Download & Documents**.

2 Click on **Instruction sheet**.

## Safety Functions

	<ul style="list-style-type: none"><li>  Emergency stop monitoring, 1 channel wiring:<ul style="list-style-type: none"><li>  1 channel Emergency stop, automatic or unmonitored start.</li><li>  1 channel Emergency stop, monitored start.</li></ul></li><li>  Emergency stop monitoring, 2 channel wiring:<ul style="list-style-type: none"><li>  2 channel Emergency stop, automatic or unmonitored start.</li><li>  2 channel Emergency stop, monitored start.</li></ul></li></ul>
	<ul style="list-style-type: none"><li>  Coded magnetic switch monitoring:<ul style="list-style-type: none"><li>  Automatic or unmonitored start, synchronization time = 1,5 s.</li><li>  Monitored start, synchronization time = 1,5 s.</li></ul></li></ul>
	<ul style="list-style-type: none"><li>  Guard monitoring with start test:<ul style="list-style-type: none"><li>  Locking of guard with start test, automatic or unmonitored start.</li><li>  Locking of guard with start test, monitored start.</li></ul></li><li>  Guard monitoring with start test and synchronization time = 1,5 ms:<ul style="list-style-type: none"><li>  Locking of guard with start test, automatic or unmonitored start.</li><li>  Locking of guard with start test, monitored start.</li></ul></li></ul>

	<ul style="list-style-type: none"> <li>  Guard monitoring for injection press or blowing machine.</li> </ul>
	<ul style="list-style-type: none"> <li>  Enabling switch monitoring, safety mat monitoring: <ul style="list-style-type: none"> <li>  Enabling switch monitoring, with or without start-up preparation.</li> <li>  Safety mat monitoring, automatic or unmonitored start.</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>  Sensing mat monitoring, monitored start.</li> </ul>
	<ul style="list-style-type: none"> <li>  Light curtain monitoring, monitored start, synchronization time = 0,5 s.</li> </ul>