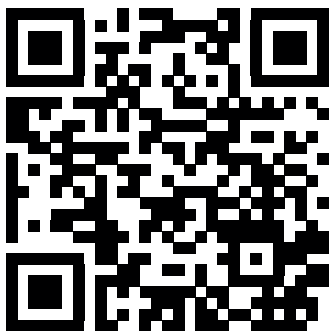


XPSMCMCB1604SA(G)

Instruction Sheet

(Original Language)

JPT3351101.00
01/2026



<https://www.go2se.com/ref=XPSMCMCB1604SA>

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About the Document

Document Scope

This information is about the usage of the Standalone Safety Controller XPSMCMCB1604SA(G)

Validity Note

The characteristics of the products described in this document are intended to match the characteristics that are available on www.se.com. As part of our corporate strategy for constant improvement, we may revise the content over time to enhance clarity and accuracy. If you see a difference between the characteristics in this document and the characteristics on www.se.com, consider www.se.com to contain the latest information.

Product Related Information

DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Disconnect all power from all equipment including connected devices prior to removing any covers or doors, or installing or removing any accessories, hardware, cables, or wires except under the specific conditions specified in the appropriate hardware guide for this equipment.
- Always use a properly rated voltage sensing device to confirm the power is off where and when indicated.
- Replace and secure all covers, accessories, hardware, cables, and wires and confirm that a proper ground connection exists before applying power to this equipment.
- Use only the specified voltage when operating this equipment and any associated equipment.

Failure to follow these instructions will result in death or serious injury.

DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

- Do not use the equipment described herein to supply external equipment.
- Do not make contact with terminals until the power has been confirmed removed.
- Follow all electrical safety regulations and standards (for example, lockout/tag-out, phase grounding, barriers) to reduce the possibility of contact with hazardous voltages in the work area.
- Complete thorough hardware tests and system commissioning to verify that line voltages are not present on the control circuits before using your hardware operationally.

Failure to follow these instructions will result in death or serious injury.

DANGER

LOSS OF DESIGNATED SAFETY FUNCTION

- Install the equipment in an enclosure with a degree of protection of at least IP 54.
- Use the same ground connection (0 Vdc) for all system components.
- Use a Protective Extra Low Voltage (PELV) power supply to isolate the equipment from line voltage.
- Do not directly connect the equipment to line voltage.

Failure to follow these instructions will result in death or serious injury.

DANGER

POTENTIAL FOR EXPLOSION

Install and use the equipment in non-hazardous locations only.

Failure to follow these instructions will result in death or serious injury.

The Standalone Safety Controller XPSMCMCB1604SA(G) can reach a maximum Safety Integrity Level (SIL) 3 as per IEC 61508 and IEC 62061, and a maximum Performance Level (PL) e, category 4, as per ISO 13849-1. However, the definitive SIL and PL of the application depends on a number of safety-related components, their parameters, and the connections that are made, as per the risk analysis.

For details and exceptions, refer to the Standalone Safety Controller XPSMCMCB1604SA(G) key safety values, page 12.

The module must be configured in accordance with the application-specific risk analysis and all the applicable standards.

Ensure to conform to any safety information, different electrical requirements, and normative standards that would apply to your adaptation.

WARNING

INSUFFICIENT SAFETY-RELATED FUNCTIONS

- Perform a risk assessment as per ISO 12100 and/or other equivalent assessment and appropriately consider all applicable regulations and standards that apply to your machine/process before using this software.
- In your risk assessment, determine all requirements regarding the Safety Integrity Level (SIL), the Performance Level (PL), and any other safety-related requirements and capabilities applicable to your machine/process.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

WARNING

UNAUTHENTICATED ACCESS AND SUBSEQUENT UNAUTHORIZED MACHINE OPERATION

- Evaluate whether your environment or your machines are connected to your critical infrastructure and, if so, take appropriate steps in terms of prevention, based on Defense-in-Depth, before connecting the automation system to any network.
- Limit the number of devices connected to a network to the minimum necessary.
- Isolate your industrial network from other networks inside your company.
- Protect any network against unintended access by using firewalls, VPN, or other, proven security measures.
- Monitor activities within your systems.
- Prevent subject devices from direct access or direct link by unauthorized parties or unauthenticated actions.
- Prepare a recovery plan including backup of your system and process information.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

For more information on organizational measures and rules covering access to infrastructures, refer to ISO/IEC 27000 series, Common Criteria for Information Technology Security Evaluation, ISO/IEC 15408, IEC 62351, ISA/IEC 62443, NIST Cybersecurity Framework, Information

Security Forum - Standard of Good Practice for Information Security and refer to Cybersecurity Guidelines for EcoStruxure Machine Expert, Modicon and PacDrive Controllers and Associated Equipment.

WARNING

LOSS OF CONTROL

- Perform a Failure Mode and Effects Analysis (FMEA), or equivalent risk analysis, of your application, and apply preventive and detective controls before implementation.
- Provide a fallback state for undesired control events or sequences.
- Provide separate or redundant control paths wherever required.
- Supply appropriate parameters, particularly for limits.
- Review the implications of transmission delays and take actions to mitigate them.
- Review the implications of communication link interruptions and take actions to mitigate them.
- Provide independent paths for control functions (for example, emergency stop, over-limit conditions, and error conditions) according to your risk assessment, and applicable codes and regulations.
- Apply local accident prevention and safety regulations and guidelines.¹
- Test each implementation of a system for proper operation before placing it into service.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

¹ For additional information, refer to NEMA ICS 1.1 (latest edition), *Safety Guidelines for the Application, Installation, and Maintenance of Solid State Control* and to NEMA ICS 7.1 (latest edition), *Safety Standards for Construction and Guide for Selection, Installation and Operation of Adjustable-Speed Drive Systems* or their equivalent governing your particular location.

WARNING

UNINTENDED EQUIPMENT OPERATION

- Only use software approved by Schneider Electric for use with this equipment.
- Update your application program every time you change the physical hardware configuration.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

The observation of operating limits and duty cycles is of particular importance for equipment designed to perform a safety-related function. If this module has been subjected to electrical, mechanical, or environmental conditions beyond its stated limits, do not use it.

WARNING

UNINTENDED EQUIPMENT OPERATION

- Do not exceed any of the rated operating limits for the equipment specified in the present document.
- Immediately cease using and replace any equipment that has or might have been subjected to conditions beyond its rated operating limits.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

There are no user-serviceable parts in this equipment. For reasons of safety and compliance, only the manufacturer should perform repairs to this equipment.

WARNING

LOSS OF SAFETY-RELATED FUNCTION

Do not attempt to repair or alter this equipment.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

General Cybersecurity Information

Scan this code to access the Schneider Electric Cybersecurity Portal.



Available Languages of the Document

The document is available in these languages:

- English (JPT3351101)
- French (JPT3351102)
- German (JPT3351103)
- Spanish (JPT3351104)
- Italian (JPT3351105)
- Portuguese (JPT3351106)
- Chinese (JPT3351107)

Qualified Personnel

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

Key Safety-related Values

Key safety-related values	Value	Standard
Probability of a dangerous failure per hour (PFH _D)	1.50E-8	IEC 61508
Safety Integrity Level (SIL) ⁽¹⁾	3	
Safe Failure Fraction (SFF)	99.7 %	
Hardware Fault Tolerance (HFT)	1 (type B)	
Defined "Safe state" ⁽²⁾	Outputs off	
Maximum Safety Integrity Level (SIL) ⁽¹⁾	3	IEC 62061
Type	4	IEC 61496-1
Performance Level (PL) ⁽¹⁾	e	ISO 13849-1
Diagnostic Coverage (DC _{avg})	High 98.9%	IEC 62061
Mean Time to Dangerous Failure (MTTF _D)	160.81 years	
Category ⁽¹⁾	4	
Maximum service life	20 years	
(1) The SIL, PL and Category of the overall system depend on the components used, the wiring and the configuration. (2) The Standalone Safety Controller XPSMCMCB1604SA(G) is in the defined safe state when the safety-related outputs are deactivated. To exit the defined safe state condition, a valid combination of hardware inputs is required.		

 **WARNING**

UNINTENDED EQUIPMENT OPERATION

- You must carry out a risk assessment in accordance with ISO 12100.
- Validate the entire system/machine in accordance with the required performance level and risk assessment.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

Regular proof test intervals as defined by safety standards are required. Observe the required test cycles according to your application.

China RoHS

Declaration on the Restriction of Hazardous Substances (RoHS)

部件名称 Part name	有害物质 - Hazardous Substances					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
金属部件 Metal parts	O	O	O	O	O	O
塑料部件 Plastic parts	O	O	O	O	O	O
电子件 Electronic	O	O	O	O	O	O
触点 Contacts	O	O	O	O	O	O
线缆和线缆附件 Cables & cabling accessories	O	O	O	O	O	O
本表格依据 SJ/T11364 的规定编制。 O: 表示该有害物质在该部件所有均质材料中的含量均在 GB/T 26572 规定的限量要求以下。 X: 表示该有害物质至少在该部件的某一均质材料中的含量超出 GB/T 26572 规定的限量要求。 This table is made according to SJ/T 11364. O: indicates that the concentration of hazardous substance in all of the homogeneous materials for this part is below the limit as stipulated in GB/T 26572. X: indicates that concentration of hazardous substance in at least one of the homogeneous materials used for this part is above the limit as stipulated in GB/T 26572						



Controller Description

The Standalone Safety Controller XPSMCMCB1604SA(G) can be configured using the SoSafe MCM Basic software.

The controller provides the following inputs and outputs:

- 16 safety-related inputs
- 4 independent configurable restart/EDM (External Device Monitoring) inputs
- 4 independent dual-channel solid-state safety-related outputs (OSSD)
- 4 SIL 1/PL c status outputs
- 4 test outputs

The Standalone Safety Controller XPSMCMCB1604SA(G) is capable of monitoring the following safety-related sensors and command devices:

- Optoelectronic sensors (safety light curtains, scanners, safety photo cells)
- Mechanical switches
- Safety mats
- Emergency stops
- Two-hand controls
- Enabling devices
- Magnetic switches
- Proximity switches

The Standalone Safety Controller XPSMCMCB1604SA(G) has a dedicated USB 2.0 port for connection to a PC with the configuration software SoSafe MCM Basic. The PC must provide a USB 2.0 port or greater. You need a matching cable to connect PC and controller.

Optional external relay modules

The following external relay modules are available:

Input and output expansion unit	Type	Description
XPSMCMER0002	ER02	2 forcibly guided contact safety-related relay outputs (2 NO and 1 NC each).
XPSMCMER0004	ER04	4 forcibly guided contact safety-related relay outputs (2 NO and 1 NC each).
XPSMCMER0008	ER08	8 forcibly guided contact safety-related relay outputs (2 NO and 1 NC each).

NOTE: For more information on the external relay units, refer to the corresponding instruction sheet.

Safety-Related Inputs

The Standalone Safety Controller XPSMCMCB1604SA(G) provides 16 active high PNP digital inputs (terminals 25...40) that allow connection to project hardware components. These inputs are designed according to IEC 61131-2, type 3.

In addition to the 16 digital inputs, the Standalone Safety Controller XPSMCMCB1604SA(G) can also use the four *RESTART_FBK* inputs (terminals 7, 11, 15, 19) as individual digital inputs. These inputs do not have all the possible configurations of the 16 digital inputs; they can only be used with the *RESTART INPUT* function block.

Input *RESTART_FBK*

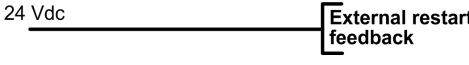
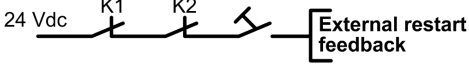
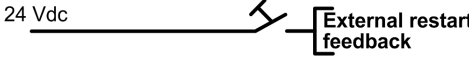
The *RESTART_FBK* signal inputs (IEC 61131-2, type 2) allow the Standalone Safety Controller XPSMCMCB1604SA(G) to verify an EDM (External Device Monitoring) feedback signal (series of contacts) from external contactors, and to monitor manual or automatic operation.

WARNING

UNINTENDED EQUIPMENT OPERATION

- If required, the response time of the external contactors must be verified by an additional device.
- The *RESTART* command device must be installed outside the zone of operation in a position where the zone of operation and the entire work area concerned are clearly visible.
- It must not be possible to operate the *RESTART* command device from inside the zone of operation.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

Operation mode	EDM	Restart_fbk
Automatic	With K1_K2 control	
	Without K1_K2 control	
Manual	With K1_K2 control	
	Without K1_K2 control	

NOTE: *RESTART_FBK* inputs can also be used as digital inputs when not used in *Restart_fbk* mode.

Outputs

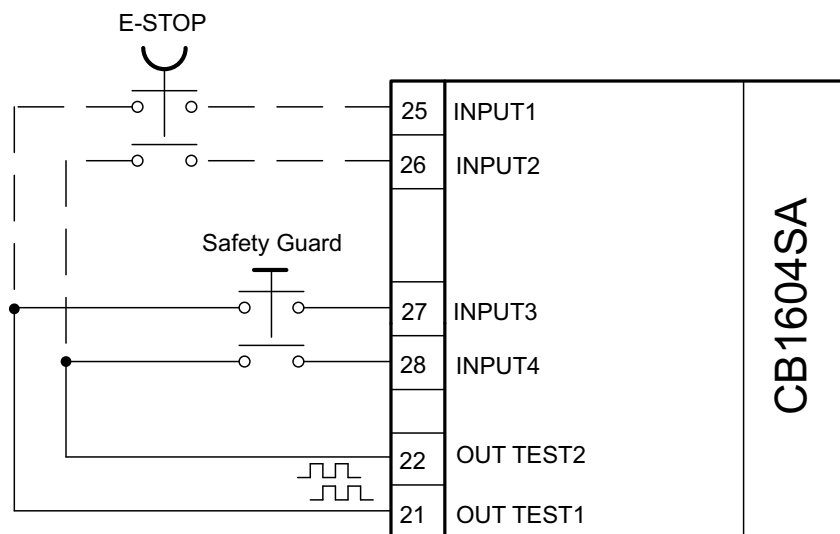
Output TEST

The **TEST** outputs must be used to monitor the presence of cross circuits or short circuits on the inputs. Connecting the test outputs helps to reach PL e in accordance with ISO 13849-1 and SIL 3 in accordance with IEC 62061.

NOTE: These safety levels can also be obtained by applying other means of fault exclusion as described in ISO 13849-2.

NOTE: The maximum number of controllable inputs for each test output is four inputs (parallel connection).

NOTE: The maximum allowed length for test output signal connections is 100 m.



Solid-State Safety-Related Output (OSSD)

⚠ WARNING

UNINTENDED EQUIPMENT OPERATION

Do not connect any equipment to an OSSD unless the OSSD is appropriately configured with SoSafe MCM Basic software.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

The OSSD safety-related outputs of the Standalone Safety Controller XPSMCMCB1604SA(G) are short-circuit protected and cross-circuit monitored.

The outputs are able to supply:

- In the ON condition: $U_v - 1.2 \text{ V} \dots U_v$
where $U_v = 24 \text{ Vdc} \pm 20\%$
- In the OFF condition: $0 \dots 2 \text{ V r.m.s.}$

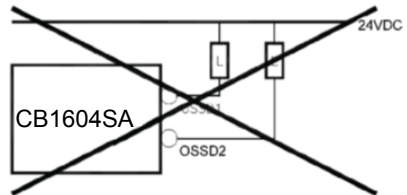
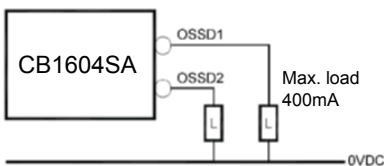
The maximum load current is 400 mA (per OSSD). The minimum resistive load is 60 Ω .

The maximum capacitive load is 0.68 μF .

The outputs are tested every 120 ms and comply with Type C, class 3 according to ZVEI CB24I Ed.2 with a maximum test pulse duration of 120 μs .

The maximum inductive load is 2 mH.

The load must be connected between the OSSD output terminals and 0 Vdc.



⚠ WARNING

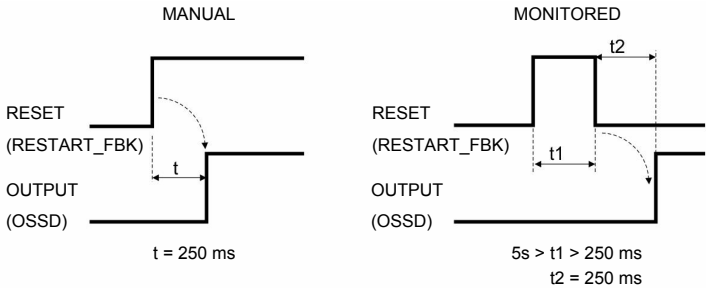
UNINTENDED EQUIPMENT OPERATION

Use appropriate wiring between OSSD outputs (separate cable paths for example).

Failure to follow these instructions can result in death, serious injury, or equipment damage.

The following table indicates how each OSSD output can be configured:

Automatic	The output is activated according to the configurations set by the SoSafe MCM Basic software, only if the corresponding <i>RESTART_FBK</i> input is connected to U_v ($24\text{ Vdc} \pm 20\%$).
Manual	The output is activated according to the configurations set by the SoSafe MCM Basic software, only if the level at the corresponding <i>RESTART_FBK</i> input changes from 0 Vdc to U_v ($24\text{ Vdc} \pm 20\%$).
Monitored	The output is activated according to the configurations set by the SoSafe MCM Basic software, only if the level at the corresponding <i>RESTART_FBK</i> input changes from 0 Vdc to U_v ($24\text{ Vdc} \pm 20\%$) and back to 0 Vdc.



Output STATUS (SIL 1/PL c in Accordance with Standard IEC 61508)

The status outputs are configurable digital diagnostic outputs that indicate the status of

- a safety-related input or
- a safety-related output or

- a node of the logic diagram configured using the SoSafe MCM Basic software

⚠ WARNING

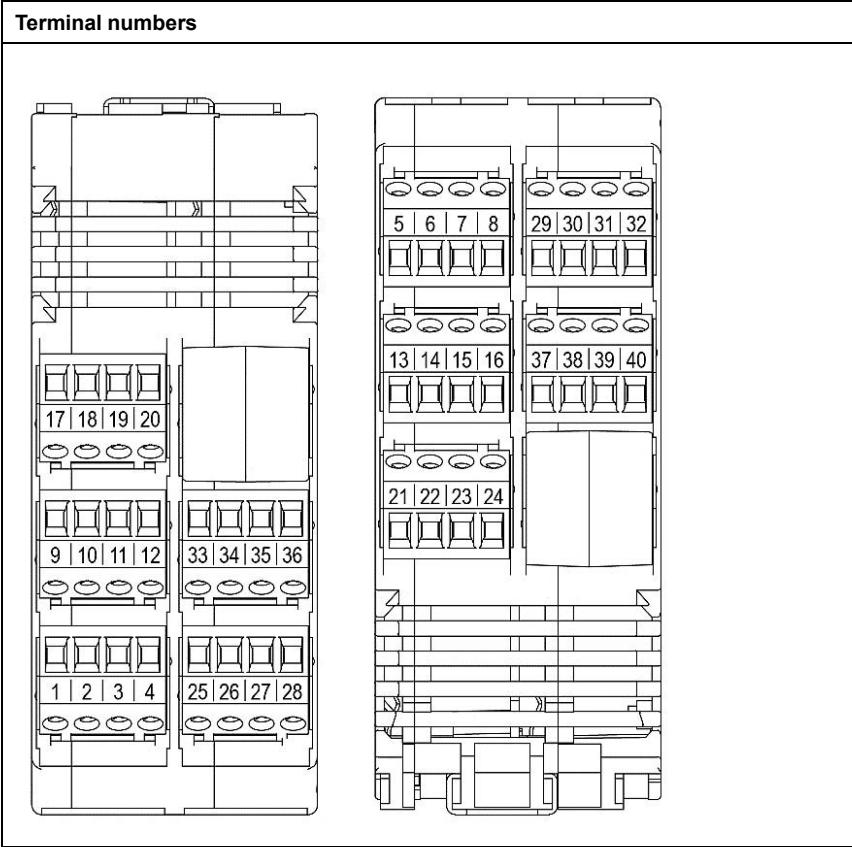
INSUFFICIENT SAFETY-RELATED FUNCTIONS

Do not use status outputs for safety-related purposes greater than SIL 1/PL c (IEC 61508).

Failure to follow these instructions can result in death, serious injury, or equipment damage.

Terminals

The Standalone Safety Controller XPSMCMCB1604SA(G) is provided with removable terminal blocks for the electrical connections with 40 terminals in total.



Terminal	Signal	LED	Type	Description	Operation
1	24 VDC	PWR	-	24 Vdc power supply	-
2	24 VDC		-	24 Vdc power supply	-
3	NC	-	-	Not Connected	-
4	0 VDC	PWR	-	0 Vdc power supply	-

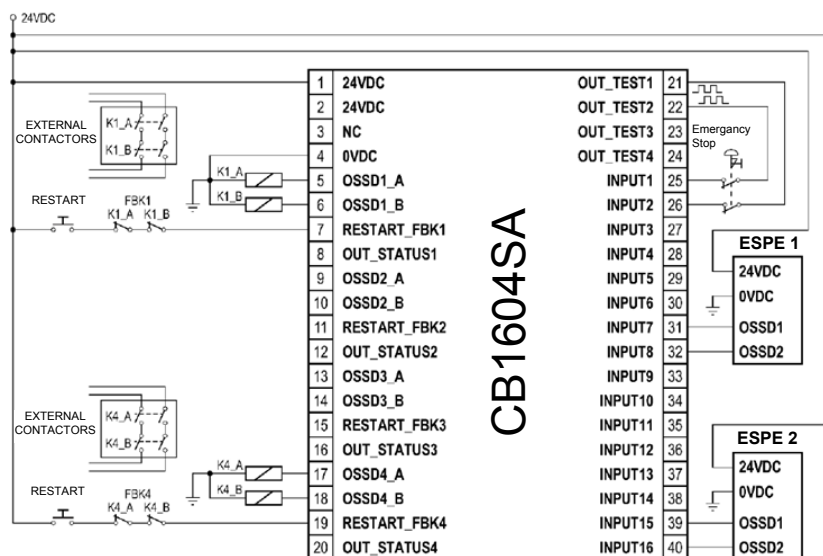
Terminal	Signal	LED	Type	Description	Operation
5	OSSD1_A	OSSD 1	Output	Safety-related output 1	PNP active at Uv (24 Vdc ± 20%).
6	OSSD1_B				
7	RE-START_FBK1	-	Input	Feedback/Restart 1	Input type 2 according to IEC 61131-2
8	OUT_STATUS 1	STATUS 1	Output	SIL 1/PL c output	Configurable output (SIL 1/PL c in accordance with IEC 61508)
9	OSSD2_A	OSSD 2		Safety-related output 2	PNP active at Uv (24 Vdc ± 20%).
10	OSSD2_B				
11	RE-START_FBK2	-	Input	Feedback/Restart 2	Input type 2 according to IEC 61131-2
12	OUT_STATUS 2	STATUS 2	Output	SIL 1/PL c output	Configurable output (SIL 1/PL c in accordance with IEC 61508)
13	OSSD3_A	OSSD 3		Safety-related output 1	PNP active at 24 Vdc.
14	OSSD3_B				
15	RE-START_FBK3	-	Input	Feedback/Restart 1	Input type 2 according to IEC 61131-2
16	OUT_STATUS 3	STATUS 3	Output	SIL 1/PL c output	Configurable output (SIL 1/PL c in accordance with IEC 61508)
17	OSSD4_A	OSSD 4		Safety-related output 2	PNP active at 24 Vdc.
18	OSSD4_B				
19	RE-START_FBK4	-	Input	Feedback/Restart 2	Input type 2 according to IEC 61131-2

Terminal	Signal	LED	Type	Description	Operation
20	OUT_ STATUS 4	STATUS 4	Output	SIL 1/PL c output	Configurable output (SIL 1/PL c in accordance with IEC 61508)
21	OUT_ TEST1	-		Short-circuit detection output	PNP active at 24 Vdc.
22	OUT_ TEST2	-		Short-circuit detection output	PNP active at 24 Vdc.
23	OUT_ TEST3	-		Short-circuit detection output	PNP active at 24 Vdc.
24	OUT_ TEST4	-		Short-circuit detection output	PNP active at 24 Vdc.

Terminal	Signal	LED	Type	Description	Operation
25	INPUT1	IN 1	Input	Safety-related input 1	Input type 3 according to IEC 61131-2
26	INPUT2	IN 2		Safety-related input 2	
27	INPUT3	IN 3		Safety-related input 3	
28	INPUT4	IN 4		Safety-related input 4	
29	INPUT5	IN 5		Safety-related input 5	
30	INPUT6	IN 6		Safety-related input 6	
31	INPUT7	IN 7		Safety-related input 7	
32	INPUT8	IN 8		Safety-related input 8	
33	INPUT9	IN 9		Safety-related input 9	
34	INPUT10	IN 10		Safety-related input 10	
35	INPUT11	IN 11		Safety-related input 11	
36	INPUT12	IN 12		Safety-related input 12	
37	INPUT13	IN 13		Safety-related input 13	
38	INPUT14	IN 14		Safety-related input 14	
39	INPUT15	IN 15		Safety-related input 15	
40	INPUT16	IN 16		Safety-related input 16	

Wiring Example

The following graphic shows an example for the connection of the Standalone Safety Controller XPSMCMCB1604SA(G) to a machine control system:



NOTE: Best practice dictates the use of fusing on the incoming 24 Vdc power, and sized appropriately for the requirements of the module.

⚠ WARNING

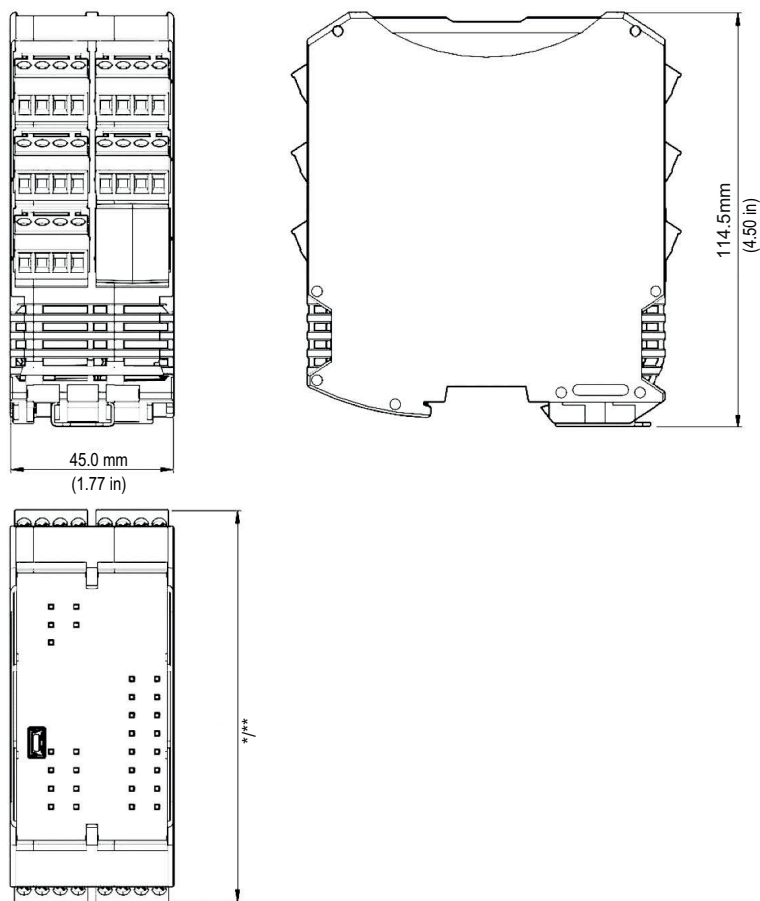
UNINTENDED EQUIPMENT OPERATION

Do not connect wires to unused terminals and/or terminals indicated as "No Connection (N.C.)" or Not Connected.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

Dimensions

The graphic indicates the dimensions of the Standalone Safety Controller XPSMCMCB1604SA(G):



* Screw terminals 108 mm (4.25 in)

** Spring terminals 118 mm (4.67 in)

Mount the modules (Standalone Safety Controller XPSMCMCB1604SA (G) and any relay modules) in an electric cabinet with an IP54 degree of protection. The minimum clearance below and above the controller is 40 mm (1.57 in). Allow at least 100 mm (3.93 in) distance between the

cabinet door and the front face of the module(s). There are no clearances required on the left or right side of the module(s); however, other equipment in proximity may require larger distances and those clearances must also be taken into account.

Technical Data

Cable Types and Wire Sizes

Cable types and wire sizes

for a 5.08 pitch removable **screw** terminal block

mm 7 in. 0.28									
mm ²	0.2...2.5	0.2...2.5	0.25...2.5	0.25...1.5	2 x 0.2...1	2 x 0.2...1.5	2 x 0.25...1	2 x 0.5...1.5	
AWG	24...14	24...14	23...14	23...16	2 x 24...18	2 x 24...16	2 x 23...18	2 x 20...16	



Ø 3.5 mm (0.14 in.)



N•m

0.5

lb-in

4.42

for a 5.08 pitch removable **spring** terminal block (used by XPSMCM•••G).

mm 10 in. 0.39						
mm ²	0.2...2.5	0.2...2.5	0.25...2.5	0.25...2.5	2 x 0.5...1	
AWG	24...14	24...14	23...14	23...14	2 x 20...18	

The following instructions concerning connection cables must be observed:

- Use 60/75 °C copper (Cu) conductor only. Maximum cable length 100 m (328 ft).
- Cables used for connections of longer than 50 m (164 ft) must have a cross-section of at least 1 mm² (AWG 16).

⚠ WARNING

UNINTENDED EQUIPMENT OPERATION

- Use shielded cables for any I/O that may be susceptible to electromagnetic radiation.
- Ground cable shield at a single point⁽¹⁾.
- Route I/O cables separately from power cables.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

¹Multipoint grounding is permissible (and in some cases inevitable) if connections are made to an equipotential ground plane dimensioned to help avoid cable shield damage in the event of power system short-circuit currents.

Housing Characteristics

General description	Electronic housing 40 poles, with locking latch mounting
Housing material	Polyamide
Housing degree of protection	IP20
Terminal blocks degree of protection	IP2x
Mounting	Quick coupling to rail according to EN/IEC 60715
Dimensions (h x l x d)	• with screw terminals: 108 x 45 x 114.5 mm (4.25 x 1.77 x 4.5 in) • with spring terminals: 118 x 45 x 114.5 mm (4.67 x 1.77 x 4.5 in)
Weight	0.25 kg (8.8 oz)

Ambient Characteristics

Maximum surrounding air temperature	+55 °C (131 °F)
Ambient operating temperature	-10...+55 °C (14...131 °F)
Relative humidity	10...95%
Maximum operation altitude	2000 m (6562 ft)
Pollution degree	2
Vibration, sinusoidal, displacement amplitude 5 ... 9 Hz (IEC 61496-1)	1.5 mm (class 5M1)
Vibration, sinusoidal, acceleration amplitude 9 ... 200 Hz (IEC 61496-1)	5 m/s ² (class 5M1)
Vibration, random, power spectral density 5 ... 200 Hz (IEC 61496-1)	0.5 m ² /s ³ (class 5M1)
Vibration, random, power spectral density 200 ... 500 Hz (IEC 61496-1)	0.1 m ² /s ³ (class 5M1)
Shock, half-sine, 11 ms, peak acceleration (IEC 61496-1)	50 m/s ² (class 5M1)
Shock, half-sine, 6 ms, acceleration (IEC 61496-1)	150 m/s ² (class 3M4)

Electrical characteristics

Rated voltage	24 Vdc $\pm$ 20 % (PELV supply) Protective Class III; UL: Supply from class 2 (LVLE)
Dissipated power	6 W maximum
Overvoltage category	II
Response time	22...24 ms ⁽¹⁾
Digital inputs (No./description)	16 / PNP active high according to IEC 61131-2 (type 3)
FBK/Restart inputs (No./description)	4 / PNP active high according to IEC 61131-2 (type 2)
Test outputs (No./description)	4 / to test for cross circuits/short circuits and overloads
SIL 1/PL c outputs (No./description)	4 / configurable, PNP active high
Solid-state safety-related outputs (OSSD) (No./description)	4 pairs / solid-state safety-related outputs, PNP active high Maximum load current of 400 mA Interface type C class 3 (ZVEI CB24I)
Connection to PC	USB 2.0 or greater Maximum cable length: 3 m (9.84 ft)
Maximum length of connections	Maximum cable length: 100 m (328,08 ft)
Connection cable cross-section	0.5...2.5 mm ² / AWG 12...30 (solid/stranded).
(1) The value depends on the number of operators in a configuration and can be found in the project report (see Standalone Safety Controller XPSMCMCB1604SA(G) User Guide).	

Checklist After Installation

The following must be verified at start up and at least once every year:

Step	Action
1	Conduct a full functional test of the system (see chapter <i>Validation</i> in the <i>Standalone Safety Controller XPSMCMCB1604SA(G) User Guide</i>).
2	Verify that all the cables are correctly inserted and that all screw terminals are tightened with the specified tightening torque.
3	Verify that all the LED indicators are correctly illuminating.
4	Verify the positioning and function of all input and output sensors and actuators used with the Standalone Safety Controller XPSMCMCB1604SA (G).
5	Verify the correct mounting of the Standalone Safety Controller XPSMCMCB1604SA(G) to the DIN rail.
6	Verify that all the external indicators (lamps/beacons/sirens) are functioning as you intended.

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As standards, specifications, and design change from time to time, please ask for confirmation of the information given in this publication.

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