

SPC SAFETY CONTROLLER



SPC Safety Controller

Product Introduction

The Programmable Security Controller (SPC) is composed of an upper computer and a lower computer. The upper computer adopts a graphical programming language and provides dedicated function blocks for different application scenarios. The configuration method is simple and intuitive, with automatic diagnosis function to assist users in quickly completing debugging.

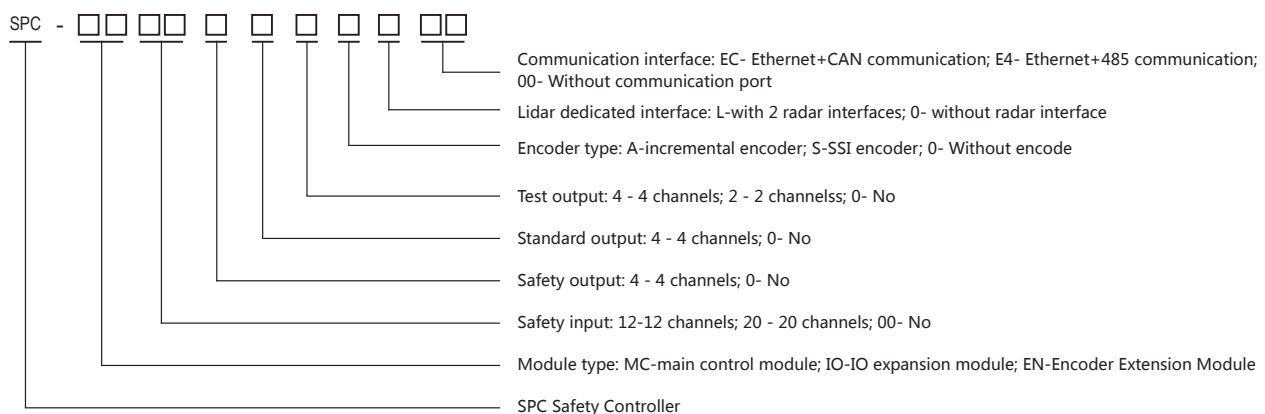
The lower computer adopts a "main control module+expansion module" architecture. The main control module comes with safety input, safety output, and communication ports, which can be run separately. The expansion module includes IO expansion and EN expansion, achieving the expansion of the lower computer interface and functions. The configured lower computer works independently and can provide security solutions for various application scenarios.



Product features

- SGS certification, safety level: SIL 3, PL e, Cat. 4.
- Provide rich external interfaces that can integrate mechanical switches, photoelectric sensors, encoders (TTL, HTL, RS422, 1VSS), lidar, safety relays, motor contactors, and other equipment.
- Strong data interaction capability, supporting CAN, RS485, and Ethernet communication, using standardized protocols.
- The 1.54-inch OLED display screen provides real-time access to system status, interface information, fault information, etc.
- Flexible configuration software, easy to use, rich functional blocks to adapt to different user needs, and tailored logic based on application scenarios to simplify engineering design.
- AGV motion solution, providing speed monitoring and automatic switching of radar defense zones.
- Forging industry solutions, safe start and stop, flexible personnel detection, reduced downtime.
- Muting solution combines efficiency and safety to ensure the safe entry and exit of goods.
- Small size, suitable for height limited application scenarios, such as horizontal AGVs.
- Flexible installation method, supporting rail clamping and screw installation.

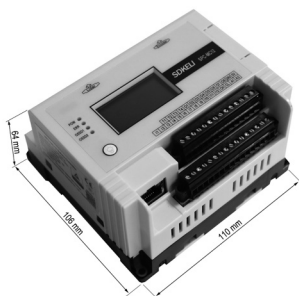
Model



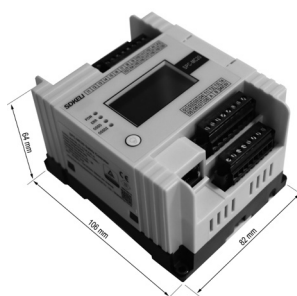
Technical parameters

Safety parameter	
SIL	SIL 3 (IEC 61508)
Safety Integrity Level	PL e (ISO 13849-1)
Architecture Category	Cat.4 (ISO 13849-1)
PFHD	$<10^{-7}$
T _M (continuous operation time)	20 years (ISO 13849-1)
Electrical parameters	
Working voltage (A1、A2)	DC24V (70%~125%)
Output power supply (DC24V、0V)	DC24V (70%~125%)
Consumption	≤500mA (Without load)
Overvoltage level	II
Power on start time	≤15s
Response time	maximum 80ms
Safety input	ON state: input voltage: 13~28V, input current: 2mA OFF state: input voltage: 0~5V, input current: 0.5mA
Safety output	output: PNP ON state: output voltage DC24V, rated current 300mA, output voltage drop ≤2V OFF state: residual voltage ≤1V, Leakage current ≤0.5mA Maximum capacitive load: 0.9uf Detection pulse: ≤600us Or disable
Data communication	CAN、RS485、Ethernet communication
Configuration interface	Type C
Screen	1.54寸OLED
Environmental parameters	
Working temperature and humidity	open environment: -25°C~60°C, relative humidity 10%~95%, No condensation
Storage temperature and humidity	-25°C~70°C, relative humidity 10%~95%, No condensation
Shock resistance	15g, 11ms Half sine wave
Anti vibration	5Hz~8.4Hz, 3.5mm Constant displacement amplitude, 8.4Hz~150Hz, 1g acceleration, constant amplitude
IP Grade	IP20
Insulation protection	Class III (SELV)
EMC	IEC 61131-2、IEC 61326-3-1
Environmental requirements	RoHS 10 items
Flame retardancy	UL94-V1

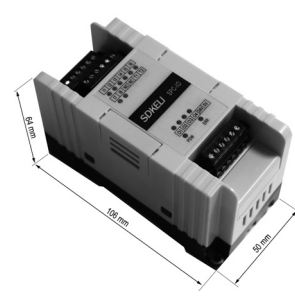
Dimensions (mm)



Main control module: SPC-MC12



Main control module: SPC-MC20



Expansion module: SPC-IO/EN