TECHNICAL DATA SHEET

SAFETY RELAY
OM-LS-2A4S series



SIL 3
IEC61508

PLe
Cat.4
EN/ISO13849

Note: Dimensions (depth × height × width): 114.5mm × 99.0mm × 45.0mm

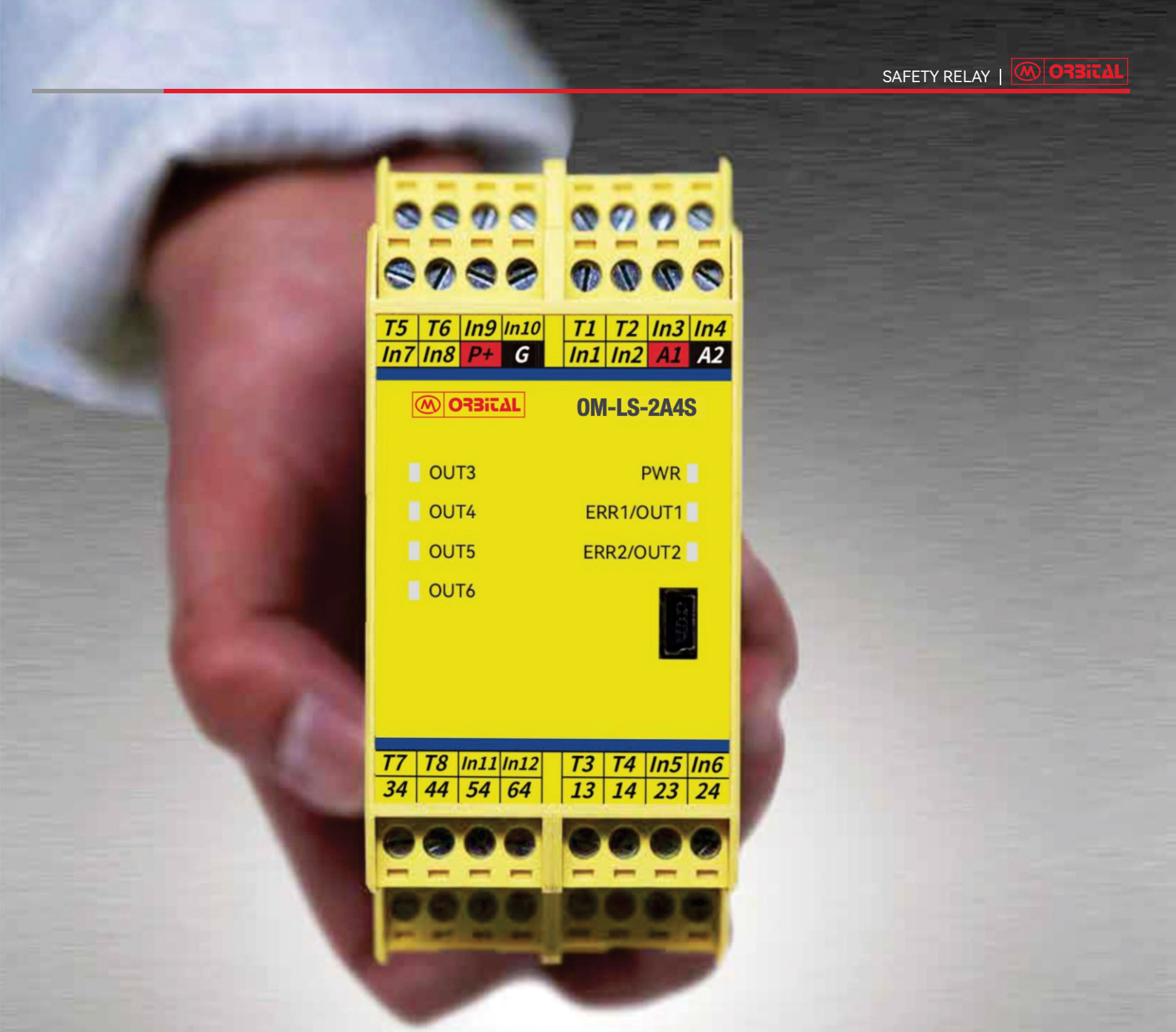
Product features

Confgurable control logic

Supports a variety of safety input signals

OM-LS-2A4S is a configurable safety control module that supports a variety of switch-type safety element inputs (such as emergency stop buttons, safety doors, two-hand buttons, etc.), and supports up to 6 safety element inputs, 2 relay safety outputs and 4 semiconductor outputs. It can use configuration software to set safety control logic to meet a variety of on-site application requirements.

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Safety relay module

*SIL3 PLe Cat.4 | TÜV Rheinland, SGS certified | Configurable control logic
Supports multiple saety input signals

SIL3 IEC61508 PLe SGS TÜVRheinland CERTIFIED CE

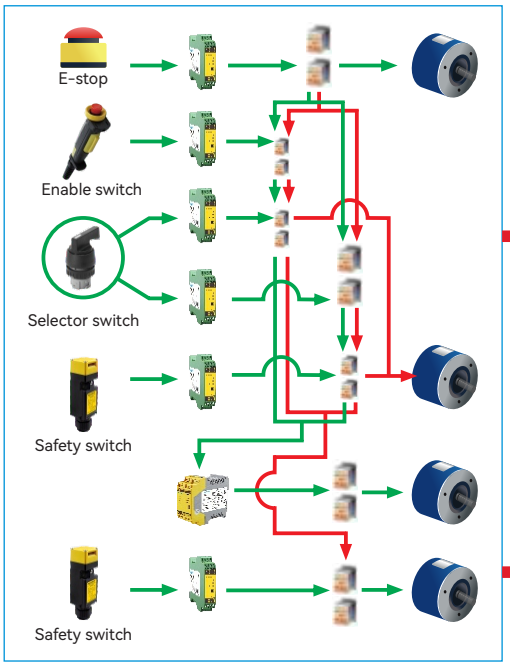
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Replace multiple safety relays with one OM-LS-2A4S configuable safety relay module

Category	Model	Power supply	Safety input		
			Redundant channels	Relay	Transistor
Configuable safety relay modules	OM-LS-2A4S	24V DC	6	2	4

Connect all safety sensor signals to an DK-LS-2A4S series safety controller and configure it through SafConfig to achieve the same functions that previously required complex wiring of multiple safety relays. On-site wiring is more convenient and the overall cost is lower.

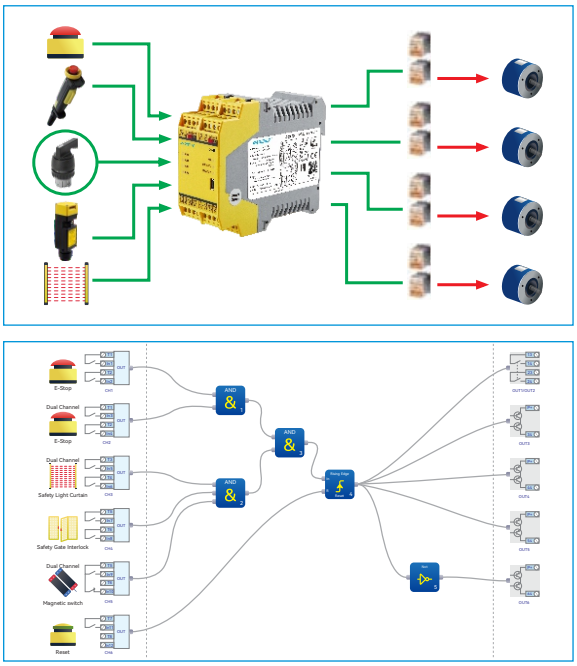
Before



Multiple signal groups connected to a single safety controller

Logic circuits are configued by software

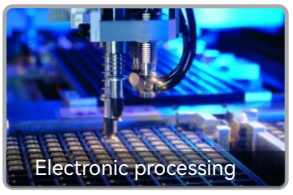
After



Industry Application

























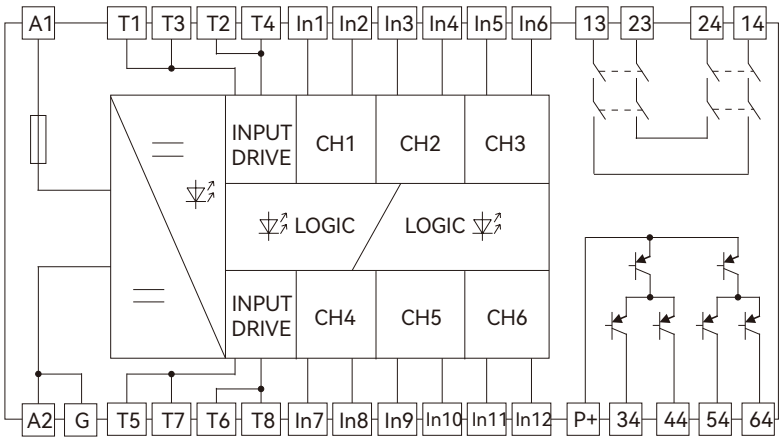
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Technical data

Power supply characteristics	
Supply voltage	20V~30V DC
Current consumption	≤110mA (24V DC)
Input characteristics	
Number of channels	6
Input current	≤50mA (24V DC)
Wire resistance	≤15Ω
Input devices	Emergency stop, safety door, safety light curtain, safety carpet, two-hand button, door magnetic switch, reset button
Relay output characteristics	
Number of contacts	2NO
Contact material	AgSnO2
Contact fuse protection	10A fast; 6A slow
Switching capacity	5A/250V AC; 5A/24V DC
Semiconductor output characteristics	
Number of outputs	4SO
Driving capacity	2A (24V DC)
Time characteristics	
Pull-in buffer time	≤100ms
Release buffer time	≤30ms
Recovery time	≤100ms
Short power interruption	20ms
Environmental characteristics	
Electromagnetic compatibility	EN60947, EN61000-6-2, EN61000-6-4
Vibration	Frequency: 10Hz~55Hz; Amplitude: 0.35mm
Operating temperature	-20℃~+60℃
Storage temperature	-40℃~+85℃
Relative humidity	10%~90%
Insulation characteristics	
Overvoltage level	III
Pollution level	2
Rated insulation voltage	250V AC
Rated impulse voltage	6000V (1.2/50us)
Insulation strength	1500V AC, 1min
Electrical clearance and creepage distance	in accordance with EN 60947-1
Certification	
Safety integrity level	SIL3
Performance level	Ple
Safety category	Cat.4

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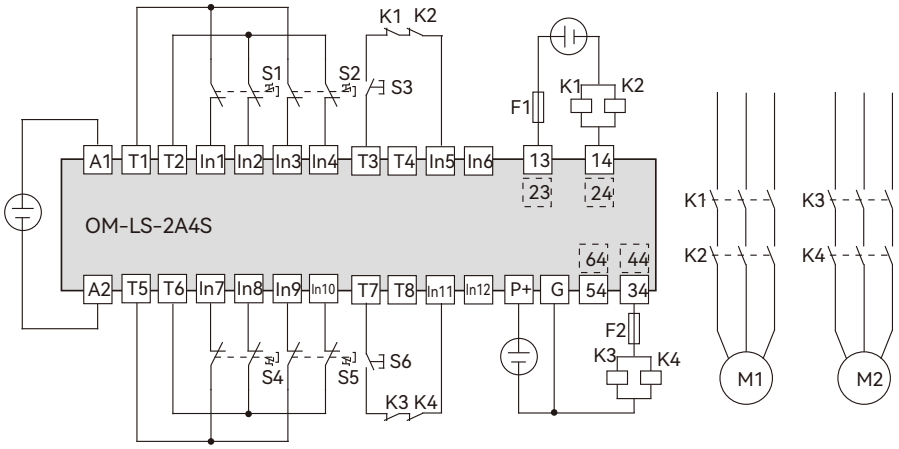
Functional Block Diagram



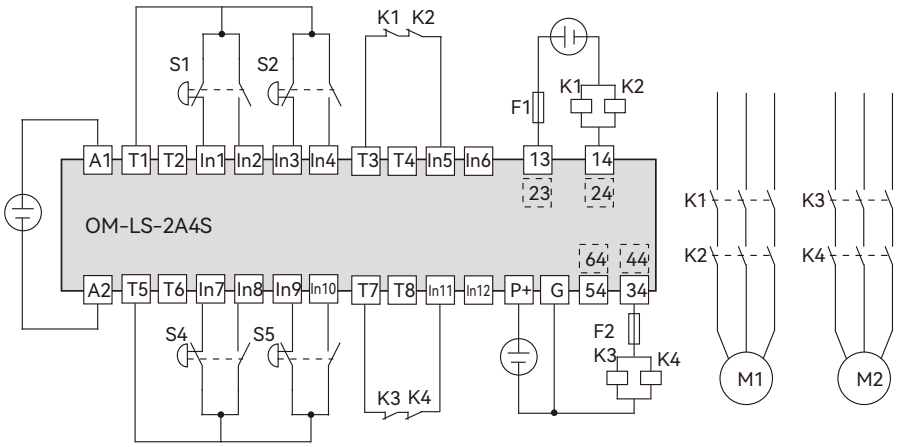
OM-LS-2A4S

OM-LS-2A4S wiring diagram

■ Four emergency stop button inputs



■ Two-way two-hand push button input



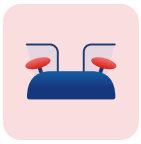
Configuable safety input signals

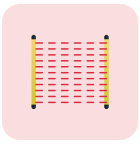

E-stop


Safety Gate


Safety Mat

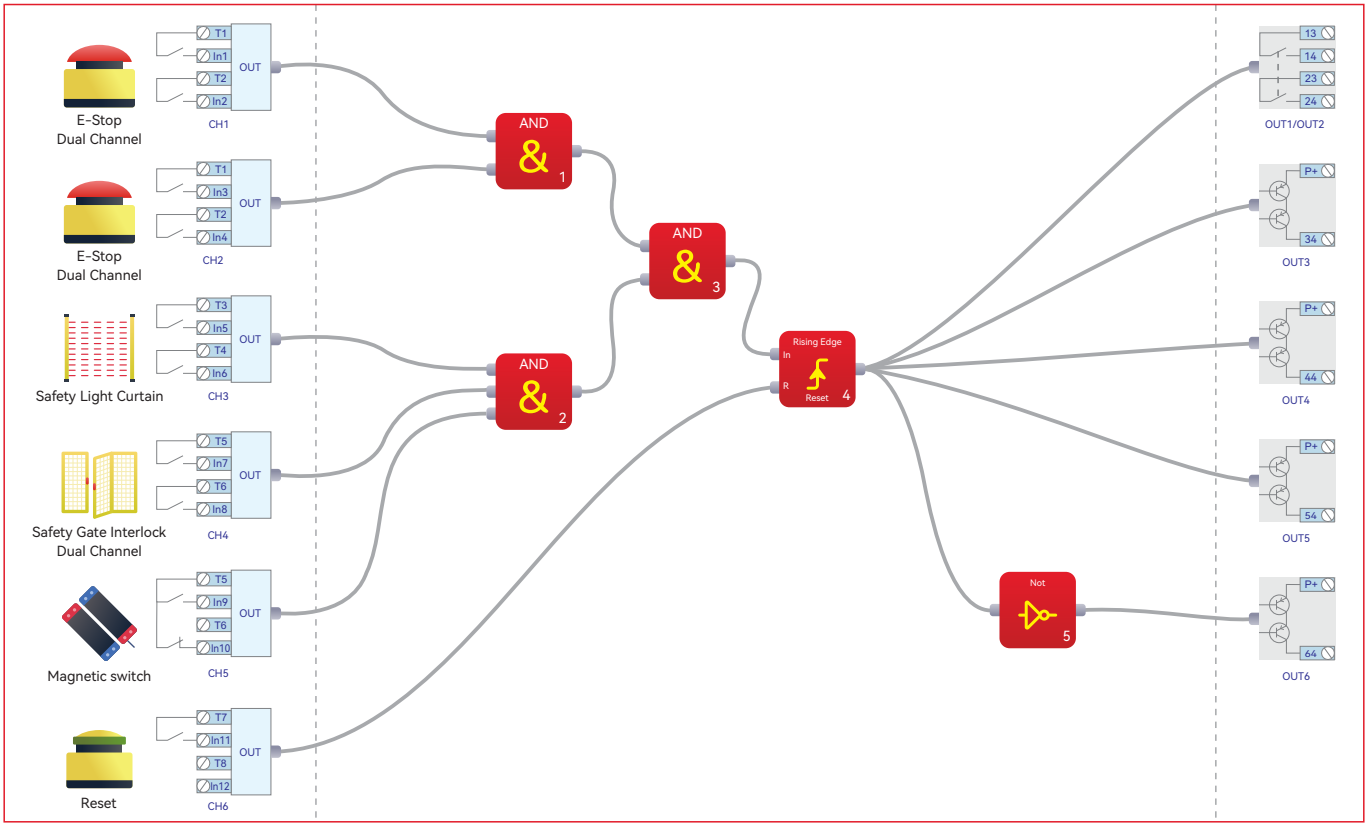

Magnetic Switch


Two-handed Button


Safety Light Curtain


Reset Button

SafConfig main in teace



Configuable logic function blocks





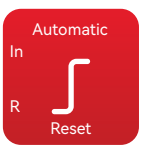












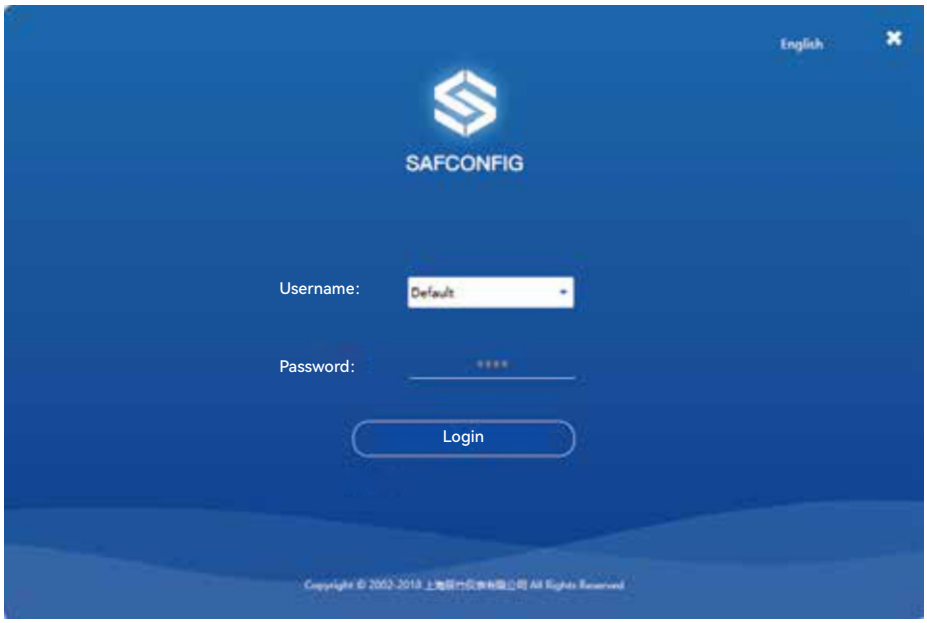






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SafConfig login interface



SafConfig Software Features

- Online remote upgrade
- Drag-and-drop confguration of function blocks and wiring
- Function block quantity limit: max18
- Single-machine logic simulation after confguration
- Online monitoring
- Confgurable safety input type and safety output delay in software