

The right Safety Relay at a glance

Sensor		Relay						Product
Type	Outputs	Restart Manual/automatic	Contacts NO contact / NC contact	Release time t_R	Switching current	Performance Level/category		
• Two-hand control device type III C	2x 1 NC/1 NO	M / A	2 / 1	50 ms	6 A	PL e / 4	MSI-SR-2H21	
• E-Stop buttons • Safety switches	1 NC or 2 NC	M / A	3 / 1	60 ms	8 A	PL d / 3	MSI-SR-ES31	
		M / A	2 / 1	25 ms	6 A	PL e / 4	MSI-SR-LC21	
		- / A	3 / 1	10 ms	8 A	PL e / 4	MSI-SR-LC31AR	
		M / -	3 / 1	10 ms	8 A	PL e / 4	MSI-SR-LC31MR	
	1 NC / 1 NO	M / A	2 / 1	20 ms	3 A	PL e / 4	MSI-MC310	
	2 NC	M / A	3 / 1	10 ms	3 A	PL e / 4	MSI-SR4B	
	2x 2 NC	M / A	2 / 0	10 ms	2 A	PL e / 4	MSI-SR5B	
• Safety proximity sensors (magnetic)	2 NC	M / A	2 / 1	25 ms	6 A	PL e / 4	MSI-SR-LC21	
		- / A	3 / 1	10 ms	8 A	PL e / 4	MSI-SR-LC31AR	
		M / -	3 / 1	10 ms	8 A	PL e / 4	MSI-SR-LC31MR	
		M / A	3 / 1	10 ms	3 A	PL e / 4	MSI-SR4B	
	1 NC und 1 NO	M / A	2 / 1	20 ms	3 A	PL e / 4	MSI-MC310	
• Safety sensors with electronic outputs (OSSD): – Safety light curtains – Safety laser scanners – Safety switches, e.g. with RFID technology	2 OSSDs	M / A	2 / 1	25 ms	6 A	PL e / 4	MSI-SR-LC21	
		- / A	3 / 1	10 ms	8 A	PL e / 4	MSI-SR-LC31AR	
		M / -	3 / 1	10 ms	8 A	PL e / 4	MSI-SR-LC31MR	
		M / A	3 / 1	10 ms	3 A	PL e / 4	MSI-SR4B	
	2x 2 OSSDs	M / A	2 / 0	10 ms	2 A	PL e / 4	MSI-SR5B	

Sensor / Application		Relay / Contact extension				
Type	Outputs	Restart Manual/automatic	Contacts NO contact / NC contact	Additional functions	Performance Level/category	Product
Evaluation units with time function						
• E-Stop • Safety switches • Safety light curtains • Safety laser scanners	2 NC or 2 OSSDs	M / A	2 / -	1 delayed contact 1,5 – 30 sec., PL d	PL e / 4	MSI-SR-LC21DT30
Contact extensions						
• Safety light curtains • Safety laser scanners • Safety switches (e.g. with RFID technology)	2 OSSDs	- / A	2 / 1		PL e / 4	MSI-RM2
• Safety relays • Safety control	Relay output or PNP output	- / A	4 / 3		PL e / 4 *	MSI-SR-CM43
		- / A	2x (2/1)		PL e / 4 *	MSI-SR-CM42R
Evaluation units for periodic testing						
• Type 2 safety sensor, testable	PNP output	M / A	2 / 2		PL c / 2	MSI-TR1B
		M / A	2 / 2	Filter time 130 ms	PL c / 2	MSI-TR2B
• SLS 46C: Type 4 safety sensor, testable	PNP output	M / A	2 / 2		PL e / 4	MSI-TRMB
Muting controller (field module)						
Protective sensors, muting sensors, diffuse sensors, ...	-	M / -	OSSD outputs	Control of muting processes	PL e / 4	MSI-MD-FB

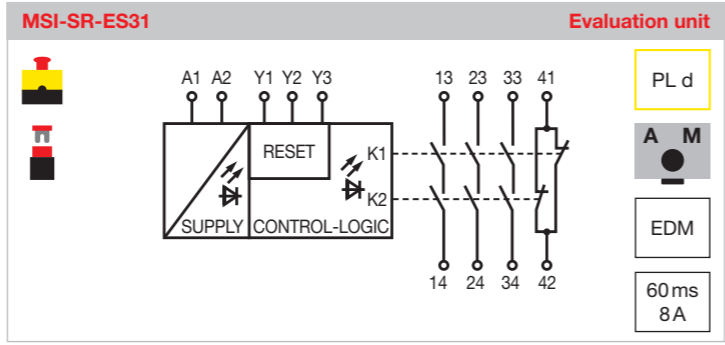
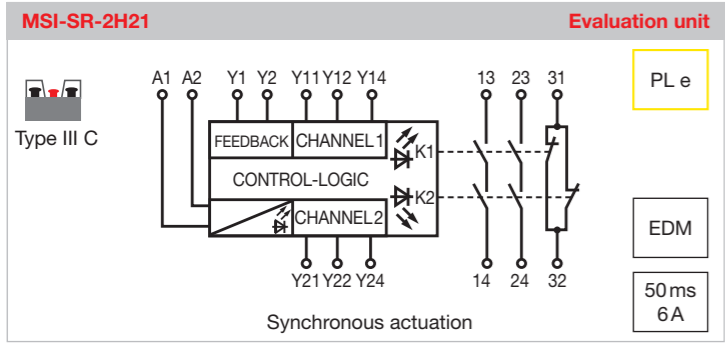
* In combination with a MSI base module.

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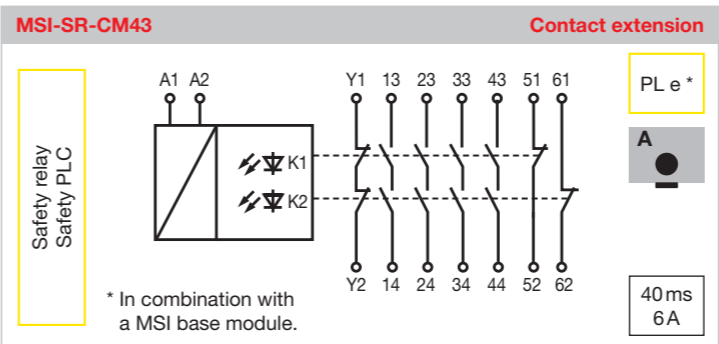
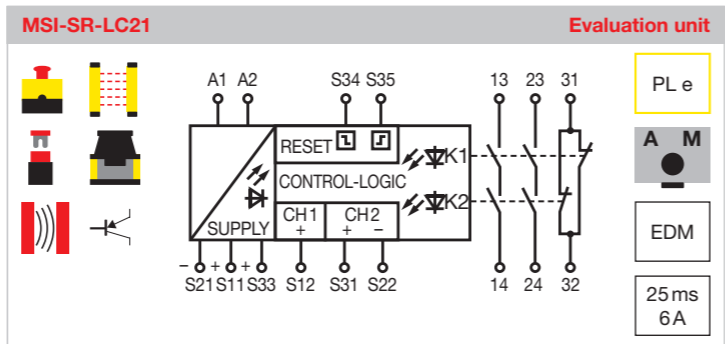
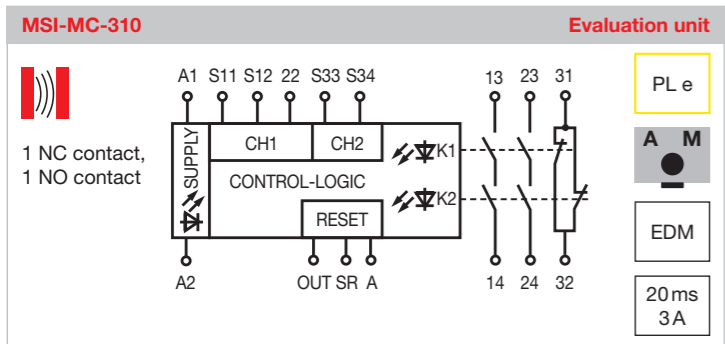
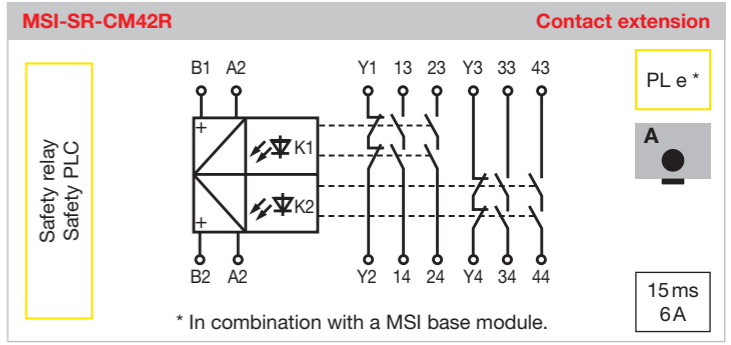
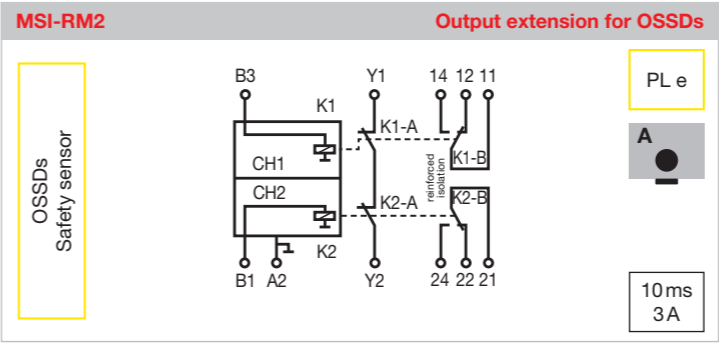
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- Two-hand control
- E-Stop
- Safety switches and safety locking devices
- Safety solenoid switches
- Protective sensors / safety light curtains
- Safety laser scanners
- Safety switches with electronic outputs (OSSDs)
- Type 2 safety sensor, testable
- Type 4 safety sensor, testable
- Restart automatic/manual
- Time delay

Evaluation units

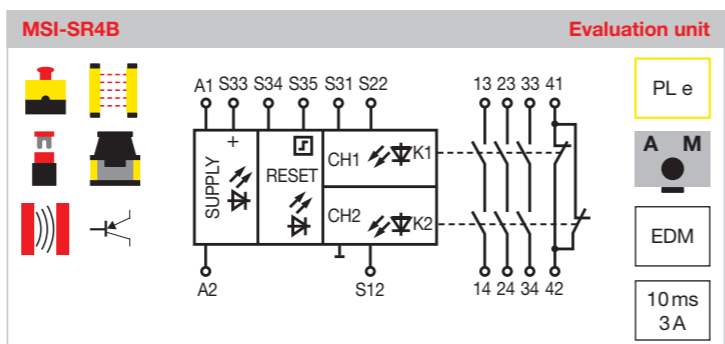
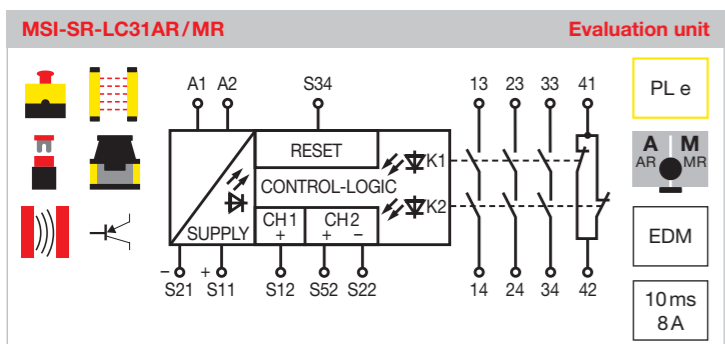


Output and contact extensions

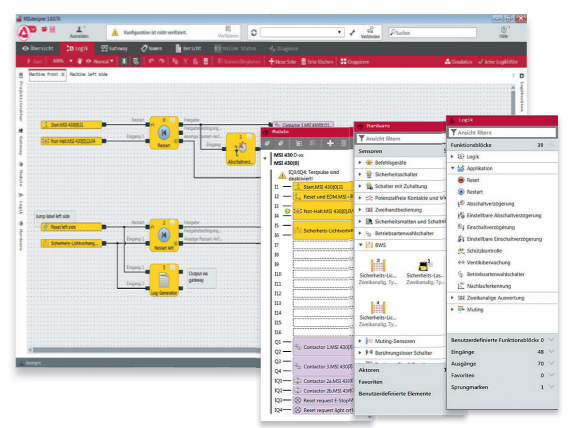
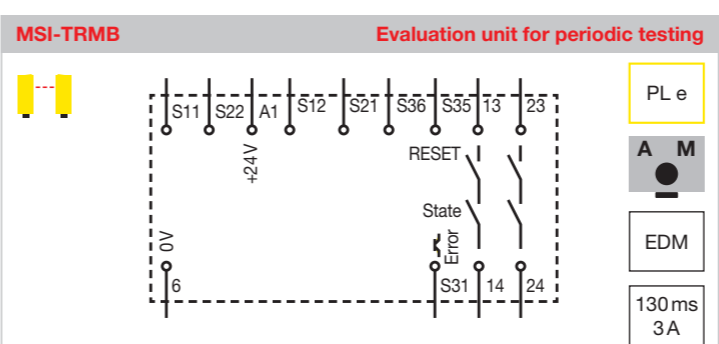
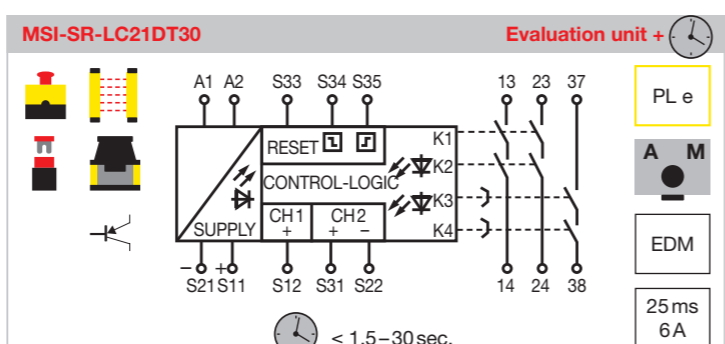
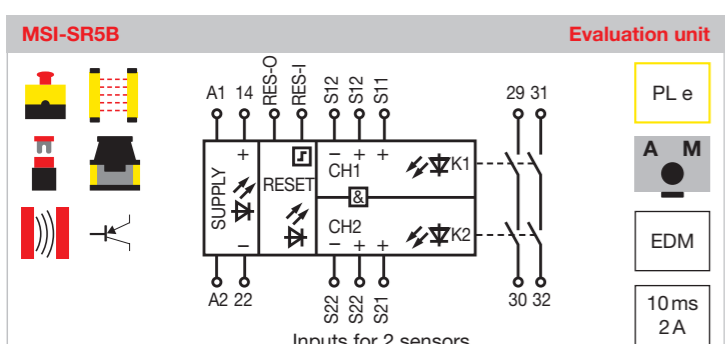
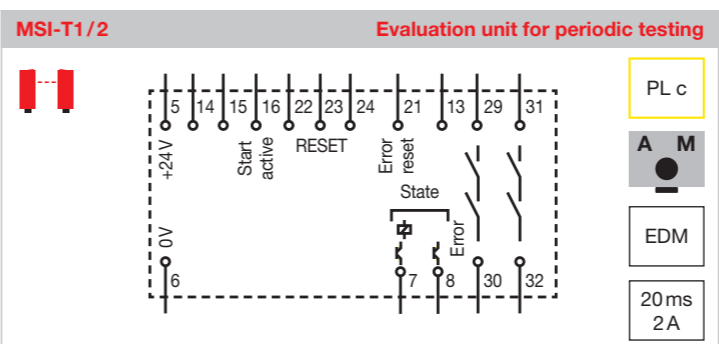


Implement multiple safety functions quickly and easily with the **Safety controller MSI 400**.

Compact or modular – always easily configured with the **MSI.designer**.



For periodic testing



More information on www.leuze.com