

THE RIGHT SAFETY RELAY AT A GLANCE

Here, you can quickly and easily find the right link between sensor and machine.

Two-hand operation	Safety solenoid switches	Safety PS mat	Contact extension
E-Stop	Protective sensors / safety light curtains	Standstill monitoring	Type 2 safety sensor, testable
Safety switches and safety locking devices	Safety laser scanners	Time delay	Type 4 safety sensor, testable

Sensor/application	Restart Manual/automatic	Contacts NO/NC	Additional functions	Performance Level	Product
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Evaluation units

		1/1		PL c	MSI-SR-2H1
		2/1		PL e	MSI-SR-2H21
	M/A	2/-		PL d	MSI-SR-ES20
	M/A	3/1		PL e	MSI-SR-ES31
	M/A	2/1		PL e	MSI-MC310
	M/A	2/-		PL e	MSI-MC311
	M/A	2/1		PL e	MSI-SR-LC21
	-/A	3/1		PL e	MSI-SR-LC31AR
	M/-	3/1		PL e	MSI-SR-LC31MR
	M/A	3/1		PL e	MSI-SR4
	M/A	2/-	2 x sensor inputs	PL e	MSI-SR5
	M/A	2/1		PL e	MSI-SR-LC21M

Evaluation units with time function

	M/A	2/-	≤3s/1 contact	PL e/d	MSI-SR-LC21DT03
	M/A	2/-	≤30s/1 contact	PL e/d	MSI-SR-LC21DT30
	M/A	2/-	≤30s/2 contacts	PL e	MSI-DT30

Sensor/application	Restart Manual/automatic	Contacts NO/NC	Additional functions	Performance Level	Product
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Monitoring of standstill / low speed

	M/A	2/2 semiconductor	≤ 99Hz	PL e	MSI-SR-SM420S
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Contact extensions













OSSD output extension	A/-	2/1		PL e	MSI-RM2
	A/-	3/2		PL e	MSI-SR-CM32
	A/-	4/3		PL d	MSI-SR-CM43
	A/-	5/2		PL e	MSI-CM52
	A/-	2 x (2/1)		PL e	MSI-SR-CM42R
	A/-	4/3	= 3s	PL d	MSI-SR-CM43DT03

Evaluation units for periodic testing

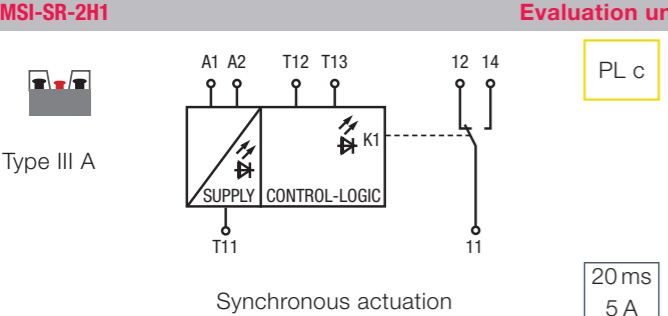
	A/M	2/2		PL c	MSI-TR1
	A/M	2/2	130 ms filter	PL c	MSI-TR2
	A/M	2/2	= 0.6s/1 signal	PL c	MSI-TS
	A/M	2/2		PL e	MSI-TRM

Muting controller (field module)

	-/M	OSSD outputs		PL e	MSI-MD-FB
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 Two-hand operation	 Safety solenoid switches	 Safety PS mat	 Automatic/manual
 E-Stop	 Protective sensors / safety light curtains	 Standstill monitoring	 Type 2 safety sensor, testable
 Safety switches and safety locking devices	 Safety laser scanners	 Time delay	 Type 4 safety sensor, testable

MSI-SR-2H1 Evaluation unit



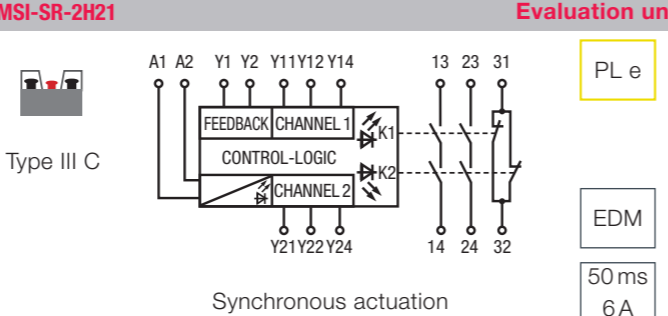
Type III A

Synchronous actuation

PL c

20 ms
5 A

MSI-SR-2H21 Evaluation unit



Type III C

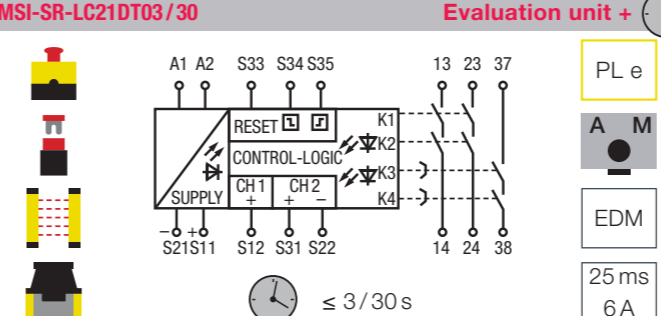
Synchronous actuation

PL e

EDM

50 ms
6 A

MSI-SR-LC21DT03/30 Evaluation unit +



PL e

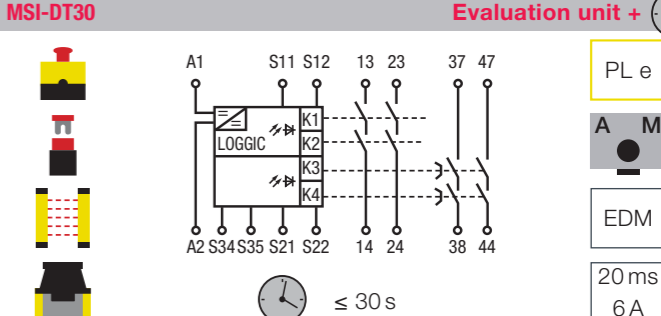
A M

EDM

25 ms
6 A

≤ 3/30 s

MSI-DT30 Evaluation unit +



PL e

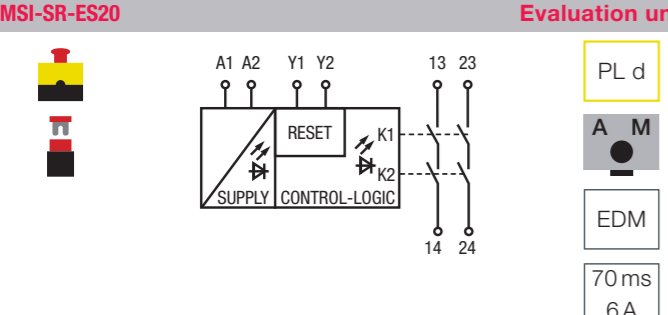
A M

EDM

20 ms
6 A

≤ 30 s

MSI-SR-ES20 Evaluation unit



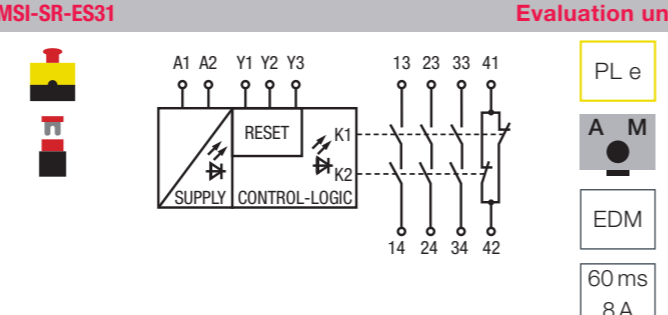
PL d

A M

EDM

70 ms
6 A

MSI-SR-ES31 Evaluation unit



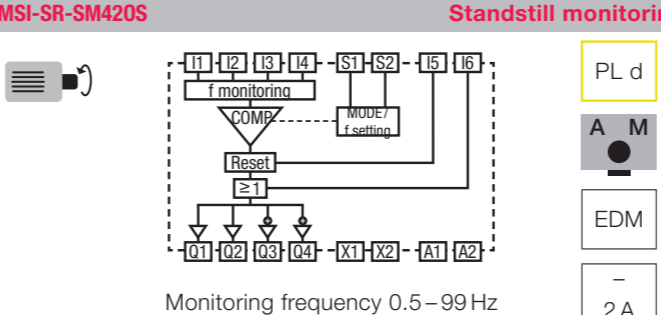
PL e

A M

EDM

60 ms
8 A

MSI-SR-SM420S Standstill monitoring



PL d

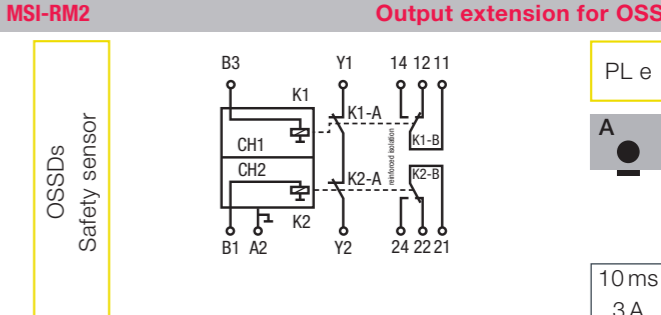
A M

EDM

2 A

Monitoring frequency 0.5–99 Hz

MSI-RM2 Output extension for OSSDs



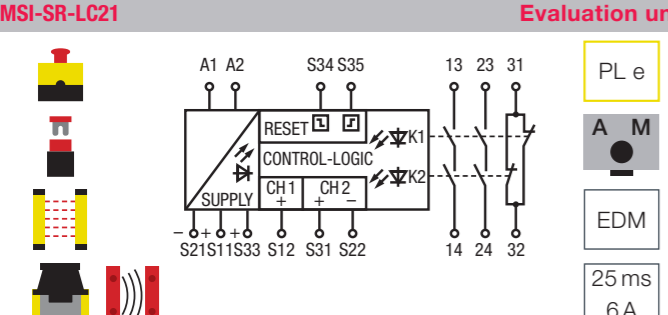
PL e

A

10 ms
3 A

OSSDs
Safety sensor

MSI-SR-LC21 Evaluation unit



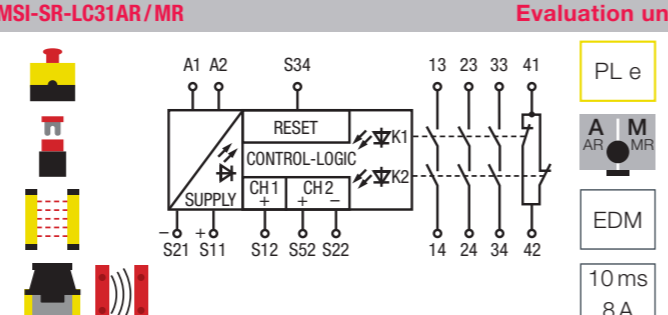
PL e

A M

EDM

25 ms
6 A

MSI-SR-LC31AR/MR Evaluation unit



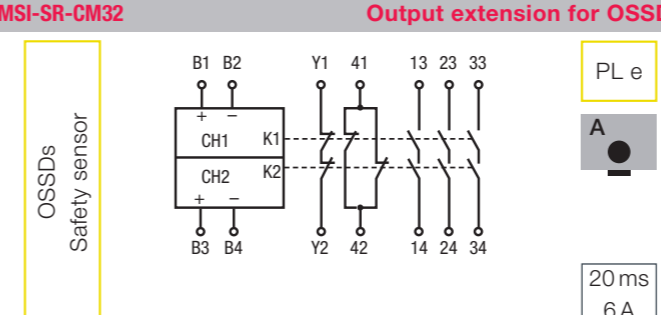
PL e

A M AR MR

EDM

10 ms
8 A

MSI-SR-CM32 Output extension for OSSDs



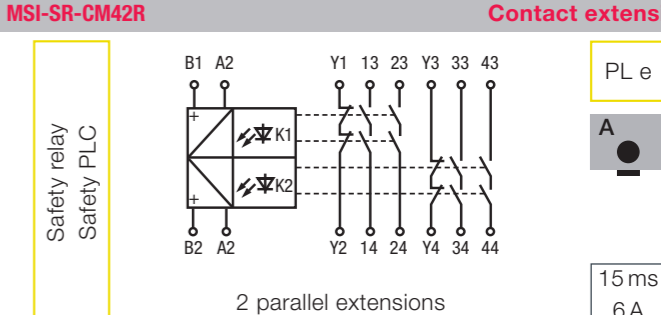
PL e

A

20 ms
6 A

OSSDs
Safety sensor

MSI-SR-CM42R Contact extension



PL e

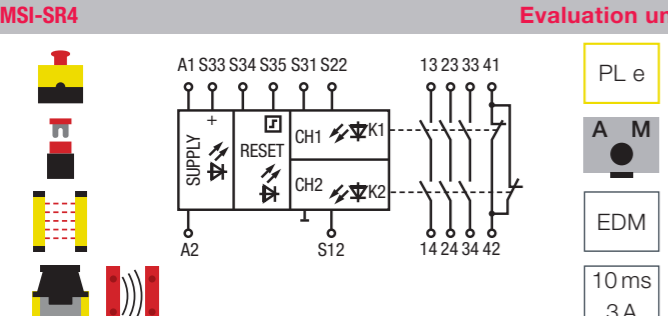
A

15 ms
6 A

Safety relay
Safety PLC

2 parallel extensions

MSI-SR4 Evaluation unit



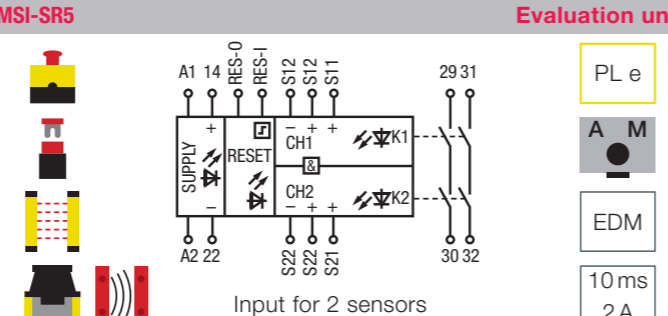
PL e

A M

EDM

10 ms
3 A

MSI-SR5 Evaluation unit



PL e

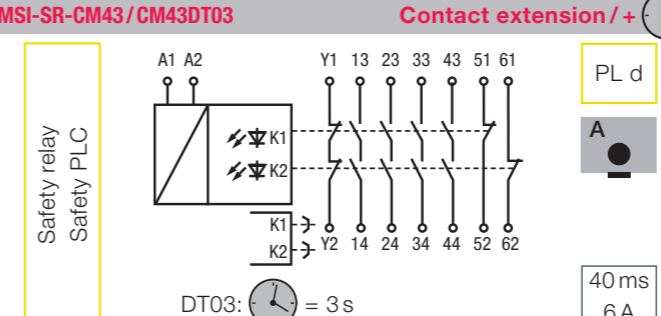
A M

EDM

10 ms
2 A

Input for 2 sensors

MSI-SR-CM43/CM43DT03 Contact extension / +



PL d

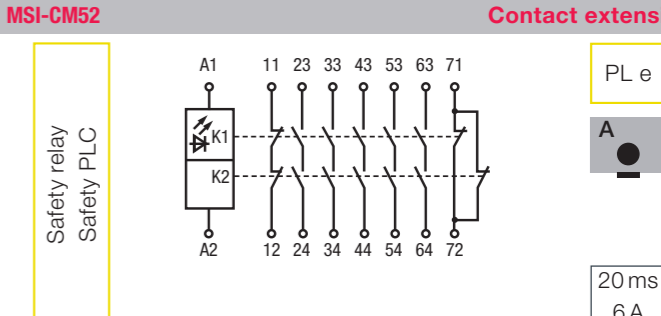
A

40 ms
6 A

Safety relay
Safety PLC

DT03: 3 s

MSI-CM52 Contact extension



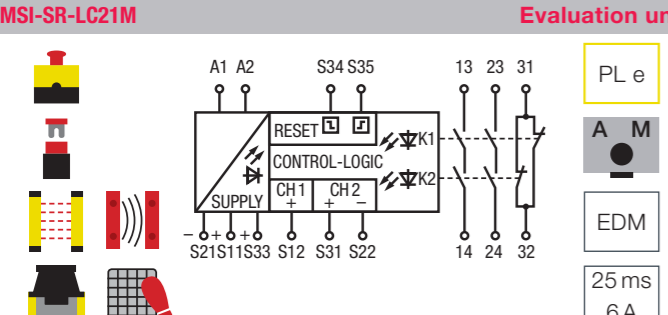
PL e

A

20 ms
6 A

Safety relay
Safety PLC

MSI-SR-LC21M Evaluation unit



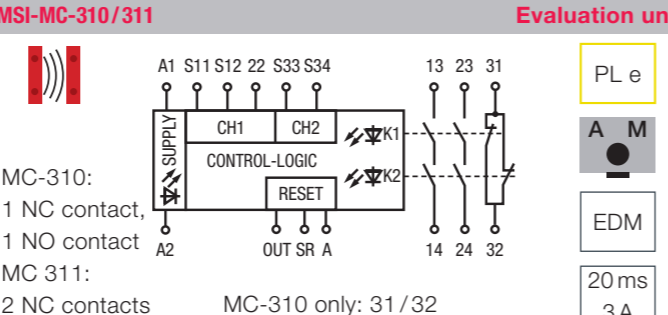
PL e

A M

EDM

25 ms
6 A

MSI-MC-310/311 Evaluation unit



PL e

A M

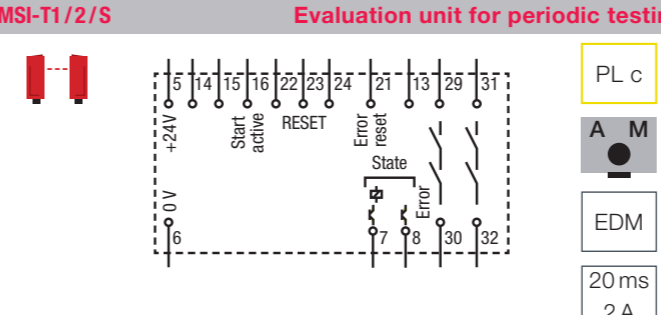
EDM

20 ms
3 A

MC-310:
1 NC contact,
1 NO contact
MC-311:
2 NC contacts

MC-310 only: 31/32

MSI-T1/2/S Evaluation unit for periodic testing



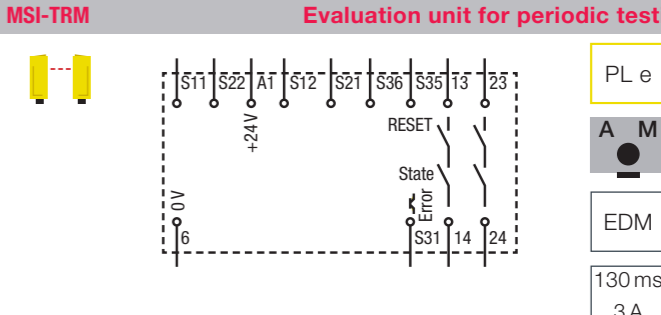
PL c

A M

EDM

20 ms
2 A

MSI-TRM Evaluation unit for periodic testing



PL e

A M

EDM

130 ms
3 A