

RELAYS / SAFETY RELAYS INCREDIBLY VERSATILE

- Over 600 different modules ready for all applications
- Push-In technology, spring clamps or screw terminals available
- Worldwide approvals

TWICE AS SMALL, TWICE AS FAST!

Each system includes different kinds of active interface modules. Relay modules are used to separate two different potential levels. The control side is galvanically isolated from the load/contact side and should be protected from the wrong voltage. These interfaces adjust the different signal levels to work with the existing system.

With MIRO SAFE+, Murrelektronik offers safe switching devices for a wide range of safe industrial applications. They are the perfect solution to reach high safety standards – up to performance level e (PLe) according to EN 13849-1. **With MIRO SAFE+ you can design many different safety applications like: emergency stops, guard doors, two hand monitoring, light curtains, and safety magnet switch monitoring.**

Relays



Relay 6.2 mm pluggable

- Output relay
- Input relay

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Relay 6.2 mm

- Output relay
- Input relay

Page 1.9.4



Relay 12.4 mm

- Output relay
- Input relay

Page 1.9.9



Relay 22.5 mm

- Output relay
- Input relay

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Safety Relays



Safety Relay 22.5/45 mm

- MIRO SAFE+

Page 1.9.20

RELAYS / SAFETY RELAYS

Terminal relay

– pluggable

– with bridge system

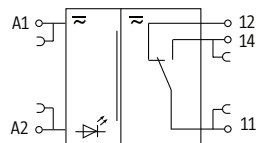
Approvals:

MIRO 6.2

Output relay
1 NO/NC contact
Spring clamp terminals



Circuit diagram



Order Data

	Art-No.
6 V AC/DC (5...7.2 V AC/DC) - 25 mA	3000-16023-3100022
12 V AC/DC (9.8...14 V AC/DC) - 14.2 mA	3000-16023-3100005
24 V AC/DC (19.2...28.8 V AC/DC) - 12 mA	3000-16013-3100020

Accessories

	Art-No.
Removable plug-in relay 6 V AC/DC	3000-16023-2100000
Removable plug-in relay 12 V AC/DC	3000-16023-2100005
Removable plug-in relay 24 V AC/DC	3000-16023-2100010

Utilization category

AC-12	6 A (24/110/230 V AC)
AC-15	3 A (24/110 V AC); 1.5 A (230 V AC)
DC-13	1 A (24 V DC); 0.2 A (110 V DC); 0.1 A (230 V DC)

Input

LED display	LED (green)
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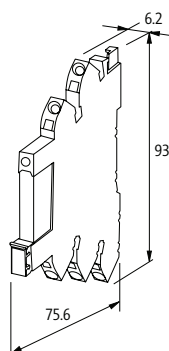
Output

Switching voltage	max. 250 V AC/30 V DC
Switching current per output	max. 6 A
Min. load current	100 mA
Power rating (voltage dependent)	max. 1 500 VA/180 W
Switching frequency	max. 10 Hz
Contact material	Ag Sn O ₂
Energize/release/contact bounce time	8/4/- ms

General data

Test isolation voltage	250 V
Mech./ elect. life	10 000 000 switching cycles (NO) 30 000; (NC) 10 000, load dependent
Protection	IP20
Mounting method	DIN-rail mountable (EN 60715)
Temperature range	-25...+60 °C

Dimension drawing



Notes

For inductive loads we recommend EMC suppressors connected parallel to the coil.

RELAYS / SAFETY RELAYS

Terminal relay

– pluggable

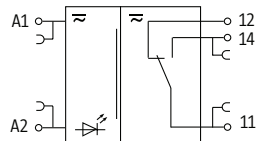
– with bridge system

MIRO 6.2

Output relay
1 NO/NC contact
Spring clamp terminals



Circuit diagram



Order Data	Art-No.
60 V AC/DC (43.5...72 V AC/DC) - 7 mA	cURus, cCSAus 3000-16513-3100022
115...125 V AC/DC (88...138 V AC/DC) - 8 mA	3000-16013-3100025
230 V AC/DC (184...264 V AC/DC) - 4 mA	3000-16013-3100030

Accessories	Art-No.
Relay 60/125/230 V AC/DC	3000-16023-2100020

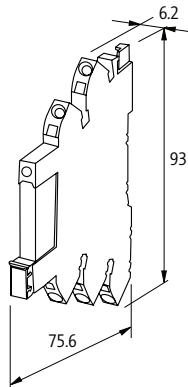
Utilization category	
AC-12	6 A (24/110/230 V AC)
AC-15	3 A (24/110 V AC); 1.5 A (230 V AC)
DC-13	1 A (24 V DC); 0.2 A (110 V DC); 0.1 A (230 V DC)

Input	
LED display	LED (green)

Output	
Switching voltage	max. 250 V AC/30 V DC
Switching current per output	max. 6 A
Min. load current	100 mA
Power rating (voltage dependent)	max. 1 500 VA/180 W
Switching frequency	max. 10 Hz
Contact material	Ag Sn O ₂
Energize/release/contact bounce time	8/4/- ms

General data	
Test isolation voltage	250 V
Mech./ elect. life	10 000 000 switching cycles (NO) 30 000; (NC) 10 000, load dependent
Protection	IP20
Mounting method	DIN-rail mountable (EN 60715)
Temperature range	-25...+60 °C

Dimension drawing



Notes	
	For inductive loads we recommend EMC suppressors connected parallel to the coil.

RELAYS / SAFETY RELAYS

Terminal relay

– pluggable

– with bridge system

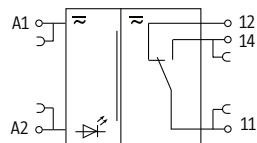
Approvals:  

MIRO 6.2

Input relay
1 NO/NC contact
Spring clamp terminals



Circuit diagram



Order Data

24 V AC/DC (19.2...26.8 V AC/DC) - 14 mA

Art-No.

3000-16013-3100040

Accessories

Removable plug-in relay 24 V AC/DC

Art-No.

3000-16023-2100030

Utilization category

AC-12	6 A (24/110/230 V AC)
AC-15	3 A (24/110 V AC); 1.5 A (230 V AC)
DC-13	1 A (24 V DC); 0.2 A (110 V DC); 0.1 A (230 V DC)

Input

LED display LED (green)

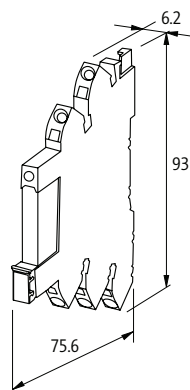
Output

Switching voltage	max. 250 V AC/30 V DC
Switching current per output	max. 6 A
Min. load current	10 mA
Power rating (voltage dependent)	max. 1 500 VA/180 W
Switching frequency	max. 10 Hz
Contact material	Ag Sn O ₂ , gold plated
Energize/release/contact bounce time	8/4/- ms

General data

Test isolation voltage	250 V
Mech./ elect. life	10 000 000 switching cycles (NO) 30 000; (NC) 10 000, load dependent
Protection	IP20
Mounting method	DIN-rail mountable (EN 60715)
Temperature range	-25...+60 °C

Dimension drawing



Notes

For inductive loads we recommend EMC suppressors connected parallel to the coil. When the max. switching voltage/current is exceeded the gold plating is destroyed. The relay will then take on the properties of an output type.

RELAYS / SAFETY RELAYS

Terminal relay

– with bridge system

Approvals:  

MIRO 6.2

Output relay
1 NO/NC contact
Screw terminals



MIRO 6.2

Output relay
1 NO/NC contact
Spring clamp terminals



MIRO 6.2

Output relay
1 NO contact
Screw terminals

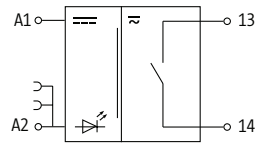
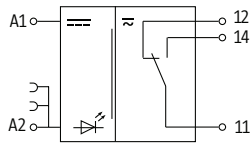


MIRO 6.2

Output relay
1 NO contact
Spring clamp terminals



Circuit diagram



Order Data	Art-No.	Art-No.	Art-No.	Art-No.
12 V DC (10...15 V DC) - 20 mA	52050	6652050		
24 V DC (19.2...30 V DC) - 14 mA	CCC 52000	CCC 6652000	CCC 52002	CCC 6652002
24 V DC (19.2...30 V DC) - 17 mA	CCC 52001	CCC 6652001	CCC 52015	CCC 6652015

Utilization category

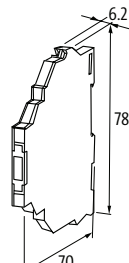
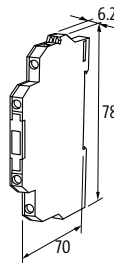
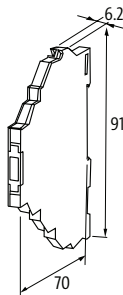
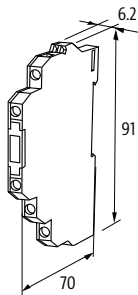
AC-12	6 A (24/110/230 V AC)
AC-15	3 A (24/110/230 V AC)
DC-13	1 A (24 V DC); 0.2 A (110 V DC); 0.1 A (230 V DC)

Input	Output
LED display	LED (green)
Switching voltage	max. 250 V AC/DC
Switching current per output	max. 6 A
Min. load current	10 mA (12 V DC) 100 mA (12 V DC)
Power rating (voltage dependent)	max. 1 500 VA/120 W
Switching frequency	max. 10 Hz
Contact material	Ag Sn O ₂
Energize/release/contact bounce time	10/15/1.5 ms

General data

Mech./ elect. life	20 000 000 switching cycles/load dependent
Test isolation voltage	4 kV; safe separation (EN 60947-1)
Mounting method	DIN-rail mountable (EN 60715)
Temperature range	-20...+55 °C

Dimension drawing



Notes

For inductive loads we recommend EMC suppressors connected parallel to the coil.

RELAYS / SAFETY RELAYS

Terminal relay

– with bridge system

Approvals:  

MIRO 6.2

Output relay
1 NO/NC contact
Screw terminals

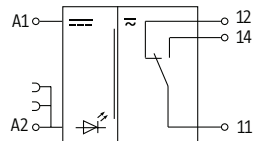


MIRO 6.2

Output relay
1 NO/NC contact
Spring clamp terminals



Circuit diagram



Order Data

110 V AC/DC (95...121 V AC/DC) - 4 mA
230 V AC/DC (195...253 V AC/DC) - 3 mA

Art-No.

52030
52040

Art-No.

6652030
6652040

Utilization category

AC-12 6 A (24/110/230 V AC)
AC-15 3 A (24/110/230 V AC)
DC-13 1 A (24 V DC); 0.2 A (110 V DC); 0.1 A (230 V DC)

Input

LED display LED (green)

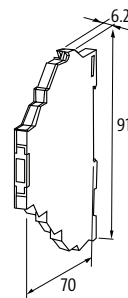
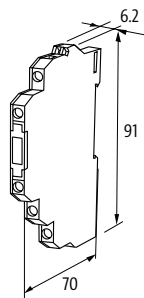
Output

Switching voltage max. 250 V AC/DC
Switching current per output max. 6 A
Min. load current 10 mA (12 V DC)
Power rating (voltage dependent) max. 1 500 VA/120 W
Switching frequency max. 10 Hz
Contact material Ag Sn O2
Energize/release/contact bounce time 10/15/1.5 ms

General data

Mech./ elect. life 20 000 000 switching cycles/load dependent
Test isolation voltage 4 kV; safe separation (EN 60947-1)
Mounting method DIN-rail mountable (EN 60715)
Temperature range -20...+55 °C

Dimension drawing



Notes

For inductive loads we recommend EMC suppressors connected parallel to the coil.

RELAYS / SAFETY RELAYS

Terminal relay

– with bridge system

MIRO 6.2

Input relay
1 NO/NC contact
Screw terminals



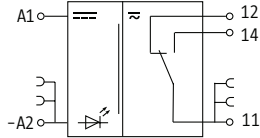
MIRO 6.2

Input relay
1 NO/NC contact
Spring clamp terminals



Approvals:

Circuit diagram



Order Data	Art-No.	Art-No.
24 V DC (19.2...30 V DC) - 14 mA	52005	6652005
24 V AC/DC (19.2...30 V AC/DC) - 16 mA	52003	6652003

Utilization category

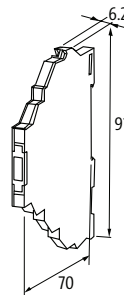
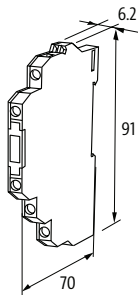
AC-12	6 A (24/110/230 V AC)
AC-15	3 A (24/110/230 V AC)
DC-13	1 A (24 V DC); 0.2 A (110 V DC); 0.1 A (230 V DC)

Input	Output
LED display	LED (yellow)
Switching voltage	max. 30 V AC/36 V DC
Switching current per output	max. 6 A
Switching current per output (Signal)	max. 20 mA
Min. load current	1 mA (12 V DC)
Power rating (voltage dependent)	max. 1 500 VA/120 W
Switching frequency	max. 10 Hz
Contact material	Ag Sn O ₂ hv
Energize/release/contact bounce time	10/15/1.5 ms

General data

Mech./ elect. life	20 000 000 switching cycles/load dependent
Test isolation voltage	4 kV; safe separation (EN 60947-1)
Mounting method	DIN-rail mountable (EN 60715)
Temperature range	-20...+55 °C

Dimension drawing



Notes

For inductive loads we recommend EMC suppressors connected parallel to the coil. When the max. switching voltage/current is exceeded the gold plating is destroyed. The relay will then take on the properties of an output type.

RELAYS / SAFETY RELAYS

Terminal relay

– with bridge system

MIRO 6.2

Input relay
1 NO contact
Screw terminals



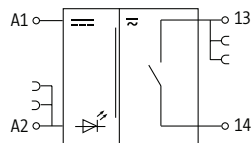
MIRO 6.2

Input relay
1 NO contact
Spring clamp terminals



Approvals:

Circuit diagram



Order Data

24 V DC (19.2...30 V DC) - 14 mA

Art-No.

52004

Art-No.

6652004

Utilization category

AC-12	6 A (24/110/230 V AC)	
AC-15	3 A (24/110/230 V AC)	
DC-13	1 A (24 V DC); 0.2 A (110 V DC); 0.1 A (230 V DC)	3 A (24/110/230 V AC)

Input

LED display LED (yellow)

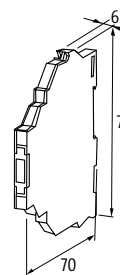
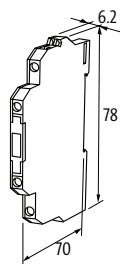
Output

Switching voltage	max. 30 V AC/36 V DC
Switching current per output	max. 50 mA
Min. load current	1 mA (12 V DC)
Power rating (voltage dependent)	max. 1 500 VA/120 W
Switching frequency	max. 10 Hz
Contact material	Ag Sn O2 hv
Energize/release/contact bounce time	10/15/1.5 ms

General data

Mech./ elect. life	20 000 000 switching cycles/load dependent
Test isolation voltage	4 kV; safe separation (EN 60947-1)
Mounting method	DIN-rail mountable (EN 60715)
Temperature range	-20...+55 °C

Dimension drawing



Notes

For inductive loads we recommend EMC suppressors connected parallel to the coil. When the max. switching voltage/current is exceeded the gold plating is destroyed. The relay will then take on the properties of an output type.

RELAYS / SAFETY RELAYS

Terminal relay

– with bridge system

Approvals:  

MIRO 6.2

Input relay
1 NO/NC contact
Screw terminals

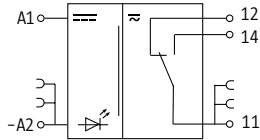


MIRO 6.2

Input relay
1 NO/NC contact
Spring clamp terminals



Circuit diagram



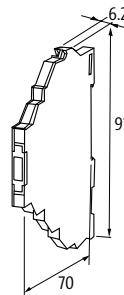
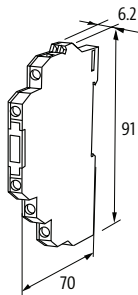
Order Data	Art-No.	Art-No.
110 V AC/DC (95...121 V AC/DC) - 4 mA	52031	6652031
230 V AC/DC (195...253 V AC/DC) - 3 mA	52041	6652041

Utilization category	
AC-12	6 A (24/110/230 V AC)
AC-15	3 A (24/110/230 V AC)
DC-13	1 A (24 V DC); 0.2 A (110 V DC); 0.1 A (230 V DC)

Input	
LED display	LED (yellow)
Output	
Switching voltage	max. 30 V AC/36 V DC
Switching current per output	max. 6 A
Switching current per output (Signal)	max. 20 mA
Min. load current	1 mA (12 V DC)
Power rating (voltage dependent)	max. 1 500 VA/120 W
Switching frequency	max. 10 Hz
Contact material	Ag Sn O ₂ hv
Energize/release/contact bounce time	10/15/1.5 ms

General data	
Mech./ elect. life	20 000 000 switching cycles/load dependent
Test isolation voltage	4 kV; safe separation (EN 60947-1)
Mounting method	DIN-rail mountable (EN 60715)
Temperature range	-20...+55 °C

Dimension drawing



Notes	
	For inductive loads we recommend EMC suppressors connected parallel to the coil. When the max. switching voltage/current is exceeded the gold plating is destroyed. The relay will then take on the properties of an output type.

RELAYS / SAFETY RELAYS

Terminal relay

– with bridge system

MIRO 12.4

Output relay
2 NO/NC contacts
Screw terminals



MIRO 12.4

Output relay
2 NO/NC contacts
Spring clamp terminals



MIRO 12.4

Input relay
2 NO/NC contacts
Screw terminals



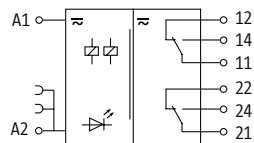
MIRO 12.4

Input relay
2 NO/NC contacts
Spring clamp terminals



Approvals:

Circuit diagram



Order Data

	Art-No.	Art-No.	Art-No.	Art-No.
24 V DC (19.2...30 V DC) - 18 mA	cCSAus, CCC 52102	cCSAus, CCC 6652102	CCC 52110	CCC 6652110
24 V AC/DC (19.2...30 V AC/DC) - 20 mA	CCC 52103	CCC 6652103	CCC 52111	CCC 6652111
110 V AC/DC (95...121 V AC/DC) - 7 mA	CCC 52130	CCC 6652130	CCC 52136	CCC 6652136
230 V AC/DC (195...253 V AC/DC) - 5 mA	CCC 52140	CCC 6652140	CCC 52146	CCC 6652146

Utilization category

AC-12	6 A (24/110/230 V AC)
AC-15	3 A (24/110/230 V AC)
DC-13	1 A (24 V DC); 0.2 A (110 V DC); 0.1 A (230 V DC)

Input

LED display	LED (green)
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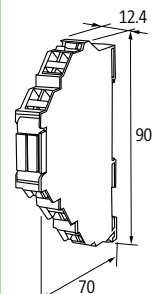
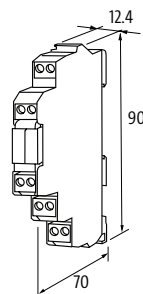
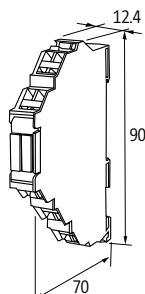
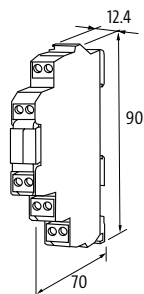
Output

Switching voltage	max. 250 V AC/DC	max. 30 V AC/36 V DC
Switching current per output	max. 6 A	
Switching current per output (Signal)	–	max. 20 mA
Min. load current	100 mA (12 V DC)	1 mA (12 V DC)
Power rating (voltage dependent)	max. 1 500 VA/120 W	
Switching frequency	max. 10 Hz	
Contact material	Ag Sn O ₂	Ag Sn O ₂ hv
Energize/release/contact bounce time	10/15/1.5 ms	

General data

Mech./ elect. life	20 000 000 switching cycles/load dependent
Test isolation voltage	4 kV; safe separation (EN 60947-1)
Mounting method	DIN-rail mountable (EN 60715)
Temperature range	-20...+55 °C

Dimension drawing



Notes

For inductive loads we recommend EMC suppressors connected parallel to the coil.

RELAYS / SAFETY RELAYS

Terminal relay
– with bridge system

MIRO 12.4
Output relay
2 NO contact
Screw terminals



MIRO 12.4
Output relay
2 NO contact
Spring clamp terminals



MIRO 12.4
Output relay
2 NO contact
Screw terminals

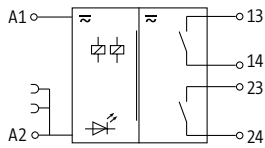


MIRO 12.4
Output relay
2 NO contact
Spring clamp terminals



Approvals:

Circuit diagram



Order Data	Art-No.	Art-No.	Art-No.	Art-No.
24 V AC/DC (19.2...30 V AC/DC) - 20 mA	52104	6652104		
24 V AC/DC (19.2...30 V AC/DC) - 16 mA			52106	6652106

Utilization category

AC-12	6 A (24/110/230 V AC)
AC-15	3 A (24/110/230 V AC)
DC-13	1 A (24 V DC); 0.2 A (110 V DC); 0.1 A (230 V DC)

Input

LED display LED (green)

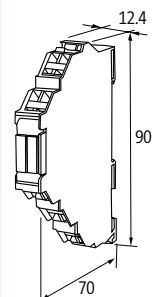
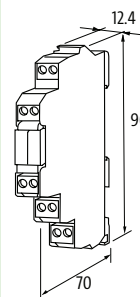
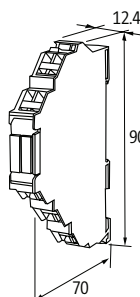
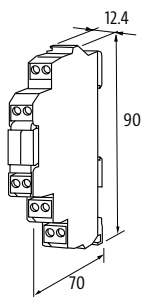
Output

Switching voltage	max. 250 V AC/DC
Switching current per output	max. 6 A
Min. load current	100 mA (12 V DC)
Power rating (voltage dependent)	max. 1 500 VA/120 W
Switching frequency	max. 10 Hz
Contact material	Ag Sn O ₂
Energize/release/contact bounce time	10/15/1.5 ms

General data

Mech./ elect. life	20 000 000 switching cycles/load dependent
Test isolation voltage	4 kV; safe separation (EN 60947-1)
Mounting method	DIN-rail mountable (EN 60715)
Temperature range	-20...+55 °C

Dimension drawing



Notes

For inductive loads we recommend EMC suppressors connected parallel to the coil.

RELAYS / SAFETY RELAYS

Terminal relay

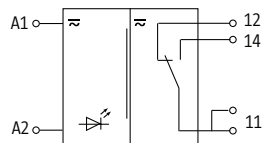
MIRO 12.4 Multi voltage

Output relay
1 NO/NC contact
Screw terminals



Approvals:

Circuit diagram



Order Data

	Art-No.
24 V AC/DC - 6...27 mA	52160
48 V DC - 6...27 mA	52160
110 V AC/DC - 6...27 mA	52160
230 V AC/DC - 6...27 mA	52160

Utilization category

AC-12	6 A (24/110/230 V AC)
AC-15	3 A (24/110/230 V AC)
DC-13	1 A (24 V DC); 0.2 A (110 V DC); 0.1 A (230 V DC)

Input

LED display	LED (green)
-------------	-------------

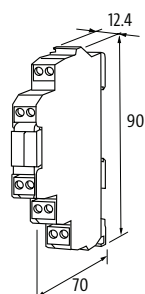
Output

Switching voltage	max. 250 V AC/DC
Switching current per output	max. 6 A
Min. load current	10 mA (12 V DC)
Power rating (voltage dependent)	max. 1 500 VA/120 W
Switching frequency	max. 10 Hz
Contact material	Ag Sn O ₂
Energize/release/contact bounce time	10/15/1.5 ms

General data

Mech./ elect. life	20 000 000 switching cycles/load dependent
Test isolation voltage	4 kV; safe separation (EN 60947-1)
Mounting method	DIN-rail mountable (EN 60715)
Temperature range	-20...+55 °C

Dimension drawing



Notes

For inductive loads we recommend EMC suppressors connected parallel to the coil.

RELAYS / SAFETY RELAYS

Relays

- Screw terminals
- with minus plug link

RMM

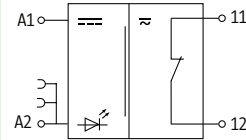
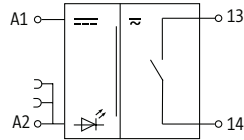
Output relay
1 relay; 1 NO contact



RMM

Output relay
1 relay; 1 NC contact

Circuit diagram



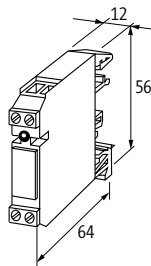
Order Data	Art-No.	Art-No.
24 V AC/DC (19.2...30 V AC/DC) - 15 mA	51851	51808

Utilization category		
AC-1	5 A (24/110/230 V AC)	
AC-15	3 A (24/110/230 V AC)	
DC-13	1.5 A (24 V DC); 0.3 A (110 V DC); 0.15 A (230 V DC)	1.3 A (24 V DC); 0.3 A (110 V DC); 0.15 A (230 V DC)

Input		
Plug link (supplied)	Art.-No. 90960	
LED display	LED (red)	
Output		
Switching voltage	max. 250 V AC/300 V DC	
Switching current per output	max. 5 A	
Min. load current	100 mA	
Power rating (voltage dependent)	max. 1 250 VA/240 W	
Switching frequency	max. 10 Hz	
Contact material	Ag Ni 0.15 hv	
Energize/release/contact bounce time	10/15/1.5 ms	

General data		
Mech./ elect. life	10 000 000 switching cycles/load dependent	20 000 000 switching cycles/load dependent
Test isolation voltage	4 kV	
Mounting method	DIN-rail mountable TH35 or G32 (EN 60715)	
Temperature range	-20...+60 °C	

Dimension drawing



Notes

RELAYS / SAFETY RELAYS

Relays

– Screw terminals

RMM

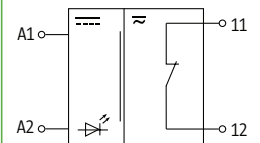
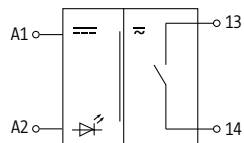
Output relay
1 relay; 1 NO contact



RMM

Output relay
1 relay; 1 NC contact

Circuit diagram



Order Data	Art-No.	Art-No.	Art-No.	Art-No.
24 V AC/DC (19.2...30 V AC/DC) - 15 mA	51551	512764		51508
110 V AC/DC (95...121 V AC/DC) - 3.5 mA			51552	
230 V AC/DC (195...250 V AC/DC) - 3.5 mA			51515	
230 V AC/DC (195...250 V AC/DC) - 4 mA				51562

Utilization category

AC-12	–	6 A (24/110/230 V AC)	5 A (24/110/230 V AC)	
AC-1	5 A (24/110/230 V AC)	–		
AC-15	3 A (24/110/230 V AC)	4 A (24/110/230 V AC)	3 A (24/110/230 V AC)	
DC-13	1.5 A (24 V DC); 0.3 A (110 V DC); 0.15 A (230 V DC)	1 A (24 V DC); 0.2 A (110 V DC); 0.1 A (230 V DC)	2 A (24 V DC); 0.25 A (110 V DC); 0.1 A (230 V DC)	1.3 A (24 V DC); 0.3 A (110 V DC); 0.15 A (230 V DC)

Input

LED display	LED (red)	LED (green)	LED (red)
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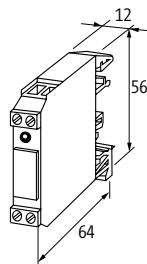
Output

Switching voltage	max. 250 V AC/300 V DC		
Switching current per output	max. 5 A		
Min. load current	100 mA		
Power rating (voltage dependent)	max. 1 250 VA/240 W		
Switching frequency	max. 10 Hz		
Contact material	Ag Ni 0.15 hv; Ag hv		
Energize/release/contact bounce time	10/15/1.5 ms		

General data

Mech./ elect. life	20 000 000 switching cycles/load dependent		
Test isolation voltage	4 kV		
Mounting method	DIN-rail mountable TH35 or G32 (EN 60715)		
Temperature range	-20...+50 °C		

Dimension drawing



Notes

RELAYS / SAFETY RELAYS

Relays

– Screw terminals

RMME

Input relay
1 relay; 1 NO contact
with minus plug link



RMME

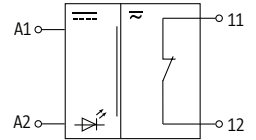
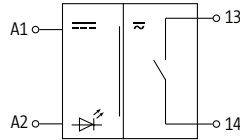
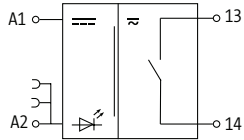
Input relay
1 relay; 1 NO contact



RMME

Input relay
1 relay; 1 NC contact

Circuit diagram



Order Data	Art-No.	Art-No.	Art-No.	Art-No.
24 V AC/DC (21.6...26.4 V AC/DC) - 6 mA	51860			
24 V AC/DC (19.2...30 V AC/DC) - 6 mA		51560		
110 V AC/DC (95...121 V AC/DC) - 3.5 mA		51526		
230 V AC (195...253 V AC) - 6 mA			51517	
24 V AC/DC (19.2...30 V AC/DC) - 15 mA				51571

Utilization category

AC-15	1 A (24 V AC); 0.5 A (125 V AC)	0.25 A (50 V AC)	3 A (24/110/230 V AC)
DC-13	1 A (24 V DC); 0.5 A (125 V DC)	–	1.5 A (24 V DC); 0.3 A (110 V DC); 0.15 A (230 V DC)
AC-1	–		5 A (24/110/230 V AC)
AC-12	–	0.5 A (50 V AC)	–

Input

Plug link (supplied)	Art-No. 90960	–
LED display	LED (yellow)	

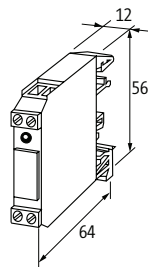
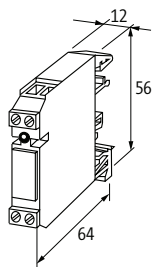
Output

Switching voltage	max. 125 V AC/DC
Switching current per output	max. 1 A
Min. load current	1 mA
Power rating (voltage dependent)	max. 60 VA/30 W
Switching frequency	max. 15 Hz
Contact material	Pd Ni-Au Rh
Energize/release/contact bounce time	10/10/1 ms

General data

Mech./ elect. life	100 000 000 switching cycles/load dependent
Test isolation voltage	1.5 kV
Mounting method	DIN-rail mountable TH35 or G32 (EN 60715)
Temperature range	-20...+60 °C

Dimension drawing



Notes

RELAYS / SAFETY RELAYS

Relays

– with minus plug link

– Screw terminals

RMMD

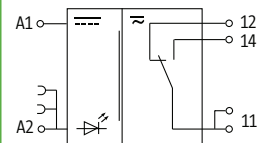
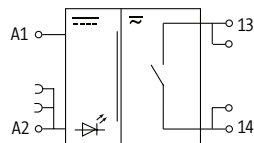
Output relay
1 relay; 1 NO contact



RMMD

Output relay
1 relay; 1 NO/NC contact

Circuit diagram



Order Data

	Art-No.	Art-No.	Art-No.	Art-No.
24 V DC (21.6...26.4 V DC) - 13.5 mA	51100			
230 V AC/DC (195...253 V AC/DC) - 4.5 mA		51108		
24 V DC (21.6...26.4 V DC) - 15 mA			51120	
24 V AC/DC (19.2...30 V AC/DC) - 10 mA				51125

Utilization category

AC-1	8 A (24/110/230 V AC)	6 A (24/110/230 V AC)	8 A (24/110/230 V AC)
AC-15	3 A (24/110/230 V AC)	4 A (24/110/230 V AC)	3 A (24/110/230 V AC)
DC-13	2.5 A (24 V DC); 0.4 A (110 V DC); 0.3 A (230 V DC)	2 A (24 V DC); 0.25 A (110 V DC); 0.1 A (230 V DC)	2.5 A (24 V DC); 0.4 A (110 V DC); 0.3 A (230 V DC)

Input

Plug link (supplied)	Art.-No. 90960	–	Art.-No. 90960
LED display	LED (red)		

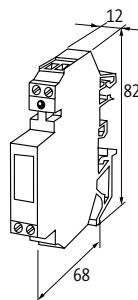
Output

Switching voltage	max. 250 V AC/DC		
Switching current per output	max. 8 A	max. 6 A	max. 8 A
Min. load current	100 mA		
Power rating (voltage dependent)	max. 2 000 VA/240 W		
Switching frequency	max. 10 Hz		
Contact material	Ag Ni		
Energize/release/contact bounce time	10/15/2 ms		

General data

Mech./ elect. life	20 000 000 switching cycles/load dependent		
Test isolation voltage	5 kV; safe separation (IEC 61140/EN 61140)	4 kV	5 kV; safe separation (IEC 61140/EN 61140)
Temperature range	-20...+50 °C		
Mounting method	DIN-rail mountable TH35 or G32 (EN 60715)		

Dimension drawing



Notes

Art.-No. 51125 with low connection current.

RELAYS / SAFETY RELAYS

Relays

- with minus plug link
- with bridge system
- Screw terminals

RMMDE

Input relay
1 relay; 1 NO contact/1 NC contact



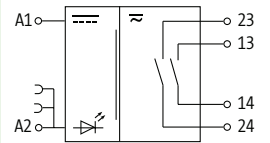
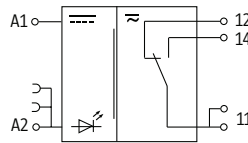
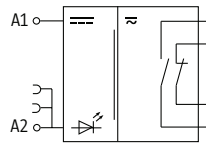
RMMDE

Input relay
1 relay; 1 NO/NC contact

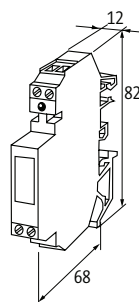
RMMDE

Input relay
1 relay; 2 NO contacts

Circuit diagram



Order Data	Art-No.	Art-No.	Art-No.	Art-No.
24 V DC (17.5...30 V DC) - 14 mA	516014			
24 V DC (19.2...30 V DC) - 17 mA		51130		
230 V AC/DC (195...253 V AC/DC) - 4.5 mA			51138	
24 V DC (19.2...30 V DC) - 15 mA				51140
Utilization category				
AC1	3 A (24 V AC); 2 A (230 V AC)	5 A (24/110/230 V AC)		2 A (24 V AC; 110 V AC; 230 V AC)
AC15	1 A (24 V AC); 0.1 A (230 V AC)	3 A (24/110/230 V AC)	4 A (24/110/230 V AC)	1 A (24 V AC); 0.1 A (230 V AC)
DC13	0.8 A (24 V DC); 0.01 A (230 V DC)	1.3 A (24 V DC); 0.25 A (110 V DC); 0.10 A (230 V DC)	2 A (24 V DC); 0.25 A (110 V DC); 0.1 A (230 V DC)	0.8 A (24 V DC); 0.1 A (110 V DC); 0.01 A (230 V DC)
Input				
Plug link (supplied)	Art-No. 90960		-	Art-No. 90960
LED display	LED (red)	LED (yellow)		
Output				
Switching voltage	max. 250 V AC/DC			
Switching current per output	max. 3 A	max. 20 mA	max. 5 A	max. 2 A
Min. load current	1 mA			5 mA
Power rating (voltage dependent)	max. 500 VA/180 W	max. 1 500 VA/180 W		max. 250 VA/150 W
Switching frequency	max. 10 Hz	max. 15 Hz		
Contact material	Ag Ni 0.15 hv	Ag Ni 0.15 hv; Ag hv		Ag Au
Energize/release/contact bounce time	6/3/2 ms	10/10/1 ms		
General data				
Mech./ elect. life	20 000 000 switching cycles/load dependent	100 000 000 switching cycles/load dependent		20 000 000 switching cycles/load dependent
Test isolation voltage	2.5 kV	4 kV		1.5 kV
Mounting method	DIN-rail mountable TH35 or G32 (EN 60715)			
Temperature range	-20...+60 °C			-20...+50 °C
Dimension drawing				
Notes				



RELAYS / SAFETY RELAYS

Relays

– Screw terminals

RM

Output relay
1 relay; 2 NO/NC contacts



RM

Output relay
1 relay; 4 NO/NC contacts

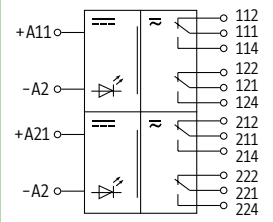
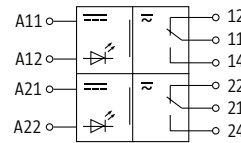
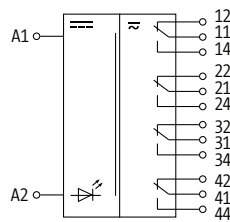
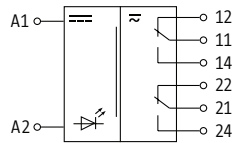
RM

Output relay
2 relays; each 1 NO/NC contact

RM

Output relay
2 relays; each 2 NO/NC contacts

Circuit diagram



Order Data	Art-No.	Art-No.	Art-No.	Art-No.
24 V AC/DC (20.4...26.4 V AC/DC) - 20 mA	51540	51410		
230 VAC (195...250 VAC) - 10 mA		51413	51412	
24 V AC/DC (19.2...30 V AC/DC) - 10 mA			51485	
24 V AC/DC (19.2...30 V AC/DC) - 14 mA				51465

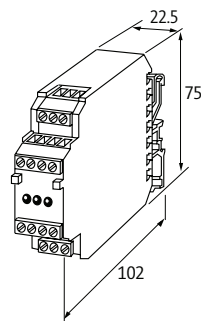
Utilization category				
AC-1	8 A (24/110/230 V AC)	–	8 A (24/110/230 V AC)	
AC-12	–	2 A (24 V AC); 0.5 A (230 V AC)	–	
AC-15	3 A (24/110/230 V AC)	1 A (24 V AC); 0.1 A (230 V AC)	3 A (24/110/230 V AC)	
DC-13	2 A (24 V DC); 0.3 A (110 V DC); 0.2 A (230 V DC)	0.8 A (24 V DC); 0.01 A (230 V DC)	1.5 A (24 V DC); 0.3 A (110 V DC); 0.15 A (230 V DC)	2 A (24 V DC); 0.3 A (110 V DC); 0.2 A (230 V DC)

Input	
LED display	LED (red)

Output				
Switching voltage	max. 250 V AC/DC			
Switching current per output	max. 8 A	max. 2 A	max. 8 A	
Min. load current	100 mA	0.1 mA	100 mA	
Power rating (voltage dependent)	max. 1 250 VA/240 W	max. 125 VA/60 W	max. 1 250 VA/240 W	
Switching frequency	max. 0.1 Hz (with load)			
Contact material	Ag Ni 0.15 hv	Ag Au	Ag Sn O2	Ag Ni 0.15 hv
Energize/release/contact bounce time	10/10/2 ms	10/20/2 ms	10/10/2 ms	

General data			
Mech./ elect. life	50 000 000 switching cycles/load dependent		20 000 000 switching cycles/load dependent
Test isolation voltage	4 kV	1.5 kV	4 kV
Mounting method	DIN-rail mountable TH35 or G32 (EN 60715)		
Temperature range	-20...+50 °C		

Dimension drawing



Notes

RELAYS / SAFETY RELAYS

Relays

- Screw terminals
- with force guided contacts

RM

Output relay
1 relay; 2 NO contacts/2 NC contacts



RM

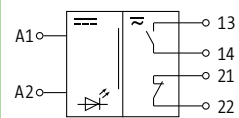
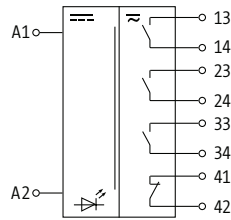
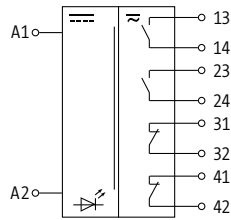
Output relay
1 relay; 3 NO contacts/1 NC contact

MKS

Output relay
1 relay; 1 NO contact/1 NC contact



Circuit diagram



Order Data	Art-No.	Art-No.	Art-No.
24 V DC (21.6...28 V DC) - 29 mA	51300		
24 V DC (21.6...28 V DC) - 30 mA		51301	
24 V AC/DC (21.6...28 V AC/DC) - 38 mA			51302

Utilization category

AC-1	5 A (24/110/230 V AC)	6 A (24/110/230 V AC)
DC-13	2 A (24 V DC); 0.4 A (110 V DC); 0.2 A (230 V DC)	3 A (24 V DC); 0.22 A (110 V DC); 0.1 A (230 V DC)
AC-15	4 A (24 V AC); 3 A (110 V AC); 2 A (230 V AC)	3 A (24/110/230 V AC)

Input

LED display	LED (red)	LED (green)
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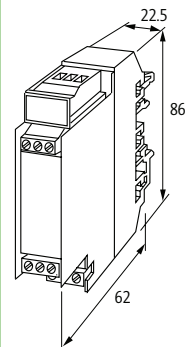
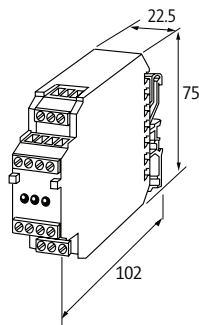
Output

Switching voltage	max. 250 V AC/DC	
Switching current per output	max. 5 A	max. 6 A
Min. load current	300 mA	10 mA
Power rating (voltage dependent)	max. 1 000 VA/50 W	max. 1 500 VA/100 W
Switching frequency	max. 0.1 Hz (with load)	max. 5 Hz
Contact material	Ag Ni 10 hv	Ag hv; Ag Sn O2
Energize/release/contact bounce time	15/15/2 ms	15/15/1.5 ms

General data

Mech./ elect. life	1 000 000 switching cycles/load dependent	10 000 000 switching cycles/load dependent
Test isolation voltage	2.5 kV	4 kV
Mounting method	DIN-rail mountable TH35 or G32 (EN 60715)	
Temperature range	-20...+50 °C	

Dimension drawing



Notes

RELAYS / SAFETY RELAYS

Relays

– Screw terminals

RM

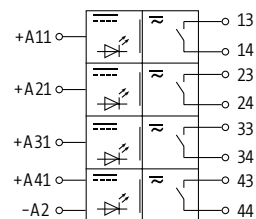
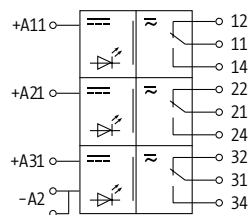
Output relay
3 relays; each 1 NO/NC contact



RM

Output relay
4 relays; each 1 NO contact

Circuit diagram



Order Data

24 V DC (19.2...30 V DC) - 16 mA

Art-No.

51403

Art-No.

512498

Utilization category

AC-1 8 A (24/110/230 V AC)
AC-15 3 A (24/110/230 V AC)
DC-13 1.5 A (24 V DC); 0.3 A (110 V DC); 0.15 A (230 V DC)

Input

LED display LED (red)

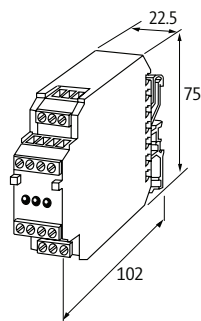
Output

Switching voltage max. 250 V AC/DC
Switching current per output max. 8 A | max. 5 A
Min. load current 100 mA
Power rating (voltage dependent) max. 1 250 VA/240 W
Switching frequency max. 0.1 Hz (with load)
Contact material Ag Sn O2 | Ag hv
Energize/release/contact bounce time 10/10/2 ms

General data

Mech./ elect. life 20 000 000 switching cycles/load dependent | 50 000 000 switching cycles/load dependent
Test isolation voltage 4 kV
Mounting method DIN-rail mountable TH35 or G32 (EN 60715)
Temperature range -20...+50 °C

Dimension drawing



Notes

RELAYS / SAFETY RELAYS

Safety relay

– Protection-door and emergency-stop control

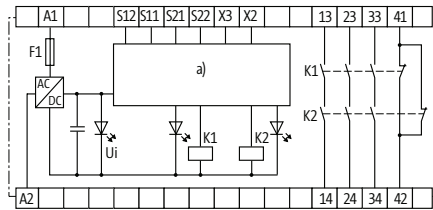
Approvals:  Listed

MIRO SAFE+ Switch H 48-230

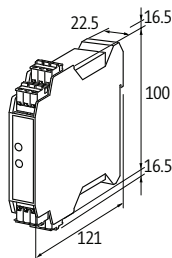
with/without start button monitoring



Circuit diagram



Order Data	Art-No.
3 safety contacts	3000-33113-1020012
Utilization category	
Safety contacts (STOP 0)	max. 250 V AC/6 A; min. 10 V AC/10 mA (ohm./ind.), at suitable suppression
AC-15	6 A (230 V AC) STOPO
DC-13	6 A (24 V DC) STOPO
Safety Indicators	
PL	up to e
Category	up to 4
DC	99%
SIL	up to 3
Service life	20 years
Input	
Input voltage	48...240 V AC
Input current	max. 2.8 VA
Output	
Switching voltage	max. 250 V AC/DC
Switching current per output	max. 6 A
Number of auxiliary contacts	1 - (41-42)
Number of alarm outputs	0
Number of safety contacts	3 - (13-14); (23-24); (33-34)
Contact material	AgSnO, self cleaning, positively driven
General data	
Mech./ elect. life	10 000 000 switching cycles/load dependent
Connection	Spring clamp plug-in terminals
Mounting method	DIN-rail mountable (EN 60715)
Temperature range	-25...+45 °C (storage temperature -40...+85 °C)
Dimension drawing	



Notes

RELAYS / SAFETY RELAYS

Safety relay

- Protection-door and emergency-stop control
- Light curtain control
- Safety magnetic switch control

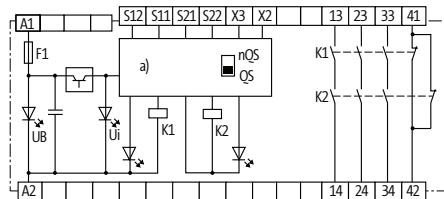
Approvals:  

MIRO SAFE+ Switch H L 24

with/without start button monitoring



Circuit diagram



Order Data

3 safety contacts

Art-No.

3000-33113-3020012

Utilization category

Safety contacts (STOP 0)

max. 250 V AC/8 A; min. 10 V AC/10 mA (ohm./ind.), at suitable suppression

AC-15

6 A (230 V AC) ST0P0

DC-13

6 A (24 V DC) ST0P0

Safety Indicators

PL

up to e

Category

up to 4

DC

99%

SIL

up to 3

Service life

20 years

Input

Input voltage

24 V DC (-15 +20%), 24 V AC (-15 +10%)

Input current

max. 4.9 VA/2.0 W

Output

Switching voltage

max. 250 V AC/DC

Switching current per output

max. 8 A

Total current

24 A (45 °C); 18 A (55 °C); 12 A (60 °C)

Number of auxiliary contacts

1 - (41-42)

Number of alarm outputs

0

Number of safety contacts

3 - (13-14); (23-24); (33-34)

Contact material

AgSnO, self cleaning, positively driven

General data

Mech./ elect. life

10 000 000 switching cycles/load dependent

Connection

Spring clamp plug-in terminals

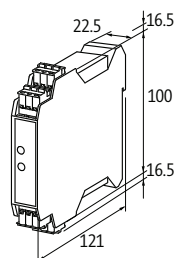
Mounting method

DIN-rail mountable (EN 60715)

Temperature range

-25...+60 °C (storage temperature -40...+85 °C)

Dimension drawing



Notes

RELAYS / SAFETY RELAYS

Safety relay

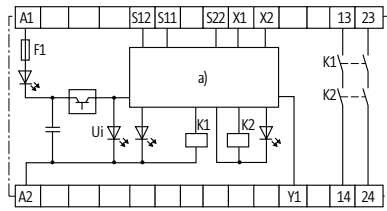
- Protection-door and emergency-stop control
- Light curtain control
- Safety magnetic switch control

MIRO SAFE+ Switch ECOA 24

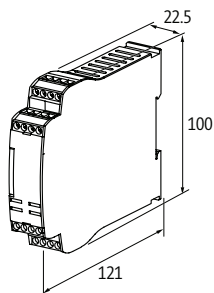
without start button monitoring



Circuit diagram



Order Data	Art-No.
2 safety contacts	3000-33113-3020005
Utilization category	
Safety contacts (STOP 0)	max. 250 V AC/4 A; min. 5 V AC/1 mA (ohm./ind.), at suitable suppression
AC-15	2 A (230 V AC) STOPO
DC-13	1 A (24 V DC) STOPO
Alarm outputs	100 mA (24 V DC)
Safety Indicators	
PL	up to 4
Category	–
DC	–
SIL	–
Service life	–
Input	
Input voltage	24 V DC (-15 +20%), 24 V AC (-15 +10%)
Input current	max. 5.2 VA/2.0 W
Output	
Switching voltage	max. 250 V AC/DC
Switching current per output	max. 4 A
Number of auxiliary contacts	0
Number of alarm outputs	1 - (Y1)
Number of safety contacts	2 - (13-14; 23-24)
Contact material	AgSnO, self cleaning, positively driven
General data	
Mech./ elect. life	10 000 000 switching cycles/load dependent
Connection	Screw terminals
Mounting method	DIN-rail mountable (EN 60715)
Temperature range	-25...+60 °C (storage temperature -40...+85 °C)
Dimension drawing	




Notes

RELAYS / SAFETY RELAYS

Safety relay

- Protection-door and emergency-stop control
- Light curtain control
- Safety magnetic switch control

Approvals:  UL[®] Listed

MIRO SAFE+ Switch BA L 24

without start button monitoring

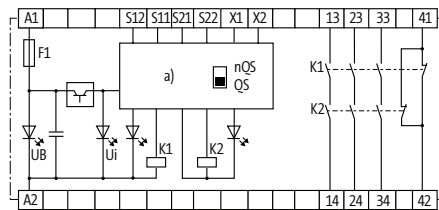


MIRO SAFE+ Switch BCS L 24

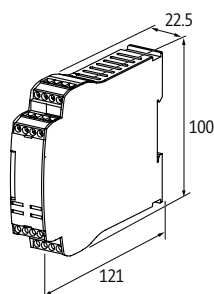
with start button monitoring



Circuit diagram



Order Data	Art-No.	Art-No.
3 safety contacts	3000-33113-3020025	3000-33113-3020020
Utilization category		
Safety contacts (STOPO)	max. 250 V AC/8 A; min. 10 V AC/10 mA (ohm./ind.), at suitable suppression	
AC-15	6 A (230 V AC) STOPO	
DC-13	6 A (24 V DC) STOPO	
Safety Indicators		
PL	up to e	
Category	up to 4	
DC	99%	
SIL	up to 3	
Service life	20 years	
Input		
Input voltage	24 V DC (-15 +20%), 24 V AC (-15 +10%)	
Input current	max. 4.9 VA/2.0 W	max. 4.4 VA/1.8 W
Output		
Switching voltage	max. 250 V AC/DC	
Switching current per output	max. 8 A	
Total current	24 A (45 °C); 18 A (55 °C); 12 A (60 °C)	
Number of auxiliary contacts	1 - (41-42)	
Number of alarm outputs	0	
Number of safety contacts	3 - (13-14); (23-24); (33-34)	
Contact material	AgSnO, self cleaning, positively driven	
General data		
Mech./ elect. life	10 000 000 switching cycles/load dependent	
Connection	Screw terminals	
Mounting method	DIN-rail mountable (EN 60715)	
Temperature range	-25...+60 °C (storage temperature -40...+85 °C)	
Dimension drawing		




Notes

RELAYS / SAFETY RELAYS

Safety relay

- Protection-door and emergency-stop control
- Light curtain control
- Safety magnetic switch control

Approvals:  Listed

MIRO SAFE+ T 1 24

with/without start button monitoring

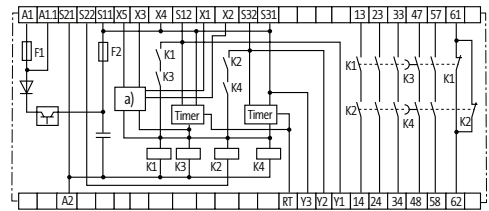
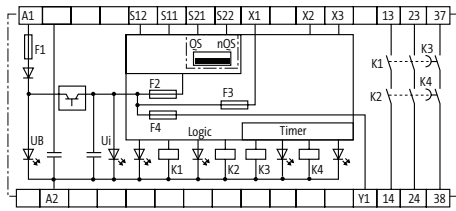


MIRO SAFE+ T 2 24

with/without start button monitoring

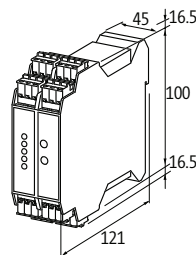
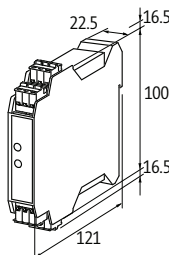


Circuit diagram



Order Data	Art-No.	Art-No.
3 safety contacts	3000-33113-3020065	
5 safety contacts		3000-33113-3020060
Utilization category		
Safety contacts (STOP 0)	max. 250 V AC/8 A; min. 5 V AC/5 mA (ohm./ind.), at suitable suppression	max. 250 V AC/8 A; min. 10 V AC/10 mA (ohm./ind.), at suitable suppression
Safety contacts (STOP 1)	max. 250 V AC/6 A; min. 10 V AC/10 mA (ohm./ind.), at suitable suppression	
AC-15	6 A (230 V AC) STOP0; 3 A (230 V AC) STOP1	
DC-13	5 A (24 V DC) STOP0; 2 A (24 V DC) STOP1	6 A (24 V DC) STOP0; 2 A (24 V DC) STOP1
Safety Indicators		
PL	up to e (STOP0); up to d (STOP1)	
Category	up to 4 (STOP0); up to 3 (STOP1)	
DC	99% (STOP0); min. 60% (STOP1)	
SIL	up to 3 (STOP0); up to 2 (STOP1)	
Service life	20 years	
Input		
Input voltage	24 V DC (-15 +20%), 24 V AC (-15 +10%)	
Input current	5.9 VA/2.4 W (with monitoring output)	max. 7.1 VA/3.2 W (with monitoring output)
Output		
Switching voltage	max. 250 V AC/DC	
Switching current per output	max. 8 A (STOP0); max. 6 A (STOP1)	max. 6 A
Number of auxiliary contacts	0	1 - (31-32)
Total current (STOP 0)	-	18 A (45 °C); 15 A (55 °C); 12 A (60 °C)
Number of alarm outputs	1 - (Y1)	3 - (13-14); (23-24); (33-34)
Total current (STOP 1)	-	12 A (45 °C); 10 A (55 °C); 8 A (60 °C)
Number of safety contacts	2 - (13-14), (23-24), STOP0; 1 - (37-38), STOP1	3 - (13-14), (23-24), (33-34), STOP0; 2 - (47-48), (57-58), STOP1
Contact material	AgSnO, self cleaning, positively driven	
General data		
Mech./ elect. life	10 000 000 switching cycles/load dependent	
Connection	Spring clamp plug-in terminals	
Mounting method	DIN-rail mountable (EN 60715)	
Temperature range	-25...+60 °C (storage temperature -40...+85 °C)	

Dimension drawing



RELAYS / SAFETY RELAYS

Safety relay

– Two hand control

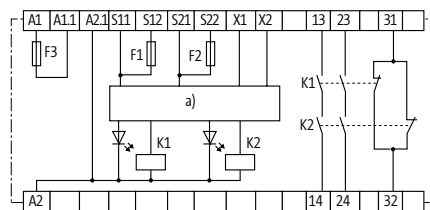
MIRO SAFE+ HAND 24

without start button monitoring



Approvals:  UL US
Listed

Circuit diagram



Order Data

2 safety contacts

Art-No.

3000-33113-3020030

Utilization category

Safety contacts (STOP 0)

max. 250 V AC/6 A; min. 10 V AC/10 mA (ohm./ind.), at suitable suppression

AC-15

6 A (230 V AC) ST0P0

DC-13

6 A (24 V DC) ST0P0

Safety Indicators

PL

up to e

Category

up to 4

DC

99%

SIL

up to 3

Service life

20 years

Input

Input voltage

24 V DC $\pm 10\%$

Input current

max. 1.2 W

Output

Switching voltage

max. 250 V AC/DC

Switching current per output

max. 6 A

Number of auxiliary contacts

1 - (31-32)

Number of alarm outputs

0

Number of safety contacts

2 - (13-14); (23-24)

Contact material

AgSnO, self cleaning, positively driven

General data

Mech./ elect. life

10 000 000 switching cycles/load dependent

Connection

Spring clamp plug-in terminals

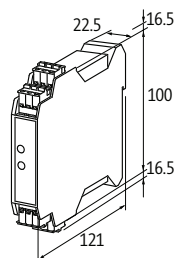
Mounting method

DIN-rail mountable (EN 60715)

Temperature range

-25...+60 °C (storage temperature -40...+85 °C)

Dimension drawing




Notes

RELAYS / SAFETY RELAYS

Safety relay

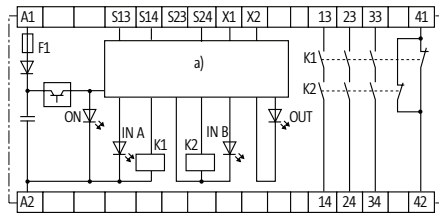
- Protection-door control
- Pressure-sensitive mat. control

Approvals:  Listed

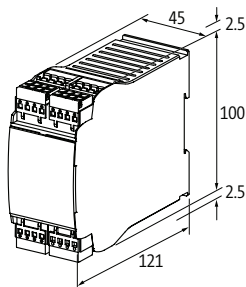
MIRO SAFE+ STEP 24
without start button monitoring



Circuit diagram



Order Data	Art-No.
3 safety contacts	3000-33113-3020050
Utilization category	
Safety contacts (STOP 0)	max. 250 V AC/8 A; min. 10 V AC/10 mA (ohm./ind.), at suitable suppression
AC-15	6 A (230 V AC) STOPO
DC-13	6 A (24 V DC) STOPO
Safety Indicators	
PL	up to e
Category	up to 4
DC	99%
SIL	up to 3
Service life	20 years
Input	
Input voltage	24 V DC (-15 +20%), 24 V AC (-15 +10%)
Input current	max. 3.7 VA/1.6 W (24 V DC)
Output	
Switching voltage	max. 250 V AC/DC
Switching current per output	max. 8 A
Number of auxiliary contacts	1 - (41-42)
Number of alarm outputs	0
Number of safety contacts	3 - (13-14); (23-24); (33-34)
Contact material	AgSnO, self cleaning, positively driven
General data	
Mech./ elect. life	10 000 000 switching cycles/load dependent
Connection	Spring clamp plug-in terminals
Mounting method	DIN-rail mountable (EN 60715)
Temperature range	-25...+60 °C (storage temperature -40...+85 °C)
Dimension drawing	



Notes

RELAYS / SAFETY RELAYS

Expansion modules

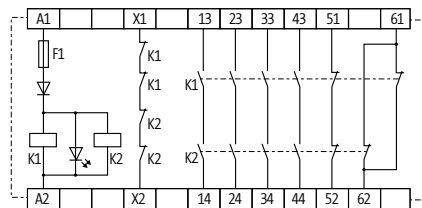
MIRO SAFE+ E 24

Expansion module



Approvals:  **UL** ^{us}
Listed

Circuit diagram



Order Data

4 NO contacts

Art-No.

3000-33113-3020075

Utilization category

Safety contacts (STOP 0)

max. 250 V AC/6 A; min. 10 V AC/10 mA (ohm./ind.), at suitable suppression

AC-15

6 A (230 V AC)

DC-13

6 A (24 V DC)

Safety Indicators

PL

up to e

Category

up to 4

SIL

up to 3

Service life

20 years

Input

Input voltage

24 V DC (-15 +20%), 24 V AC (-15 +10%)

Input current

max. 1.0 VA

Output

Switching voltage

max. 250 V AC/DC

Switching current per output

max. 6 A

Number of auxiliary contacts

2 - (51-52); (61-62)

Number of alarm outputs

0

Number of contacts

4 - (13-14); (23-24); (33-34); (43-44)

Contact material

AgSnO, self cleaning, positively driven

General data

Mech./ elect. life

10 000 000 switching cycles/load dependent

Connection

Spring clamp plug-in terminals

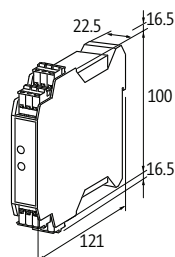
Mounting method

DIN-rail mountable (EN 60715)

Temperature range

-25...+45 °C (storage temperature -40...+85 °C)

Dimension drawing




Notes

RELAYS / SAFETY RELAYS

Labeling accessories			Art-No.
	ACS label plate (KM 5) for self marking (9 × 20 mm) 5 × 10 mm		7000-99001-000000 90931
	Label plate (KWI 5/15) (88 pieces per plate)		90901
Wiring accessories			Art-No.
	Potential plug link max. 48 V/2 A	RMM..., RMMD...	90960
	Potential plug link max. 50 V/2 A	MIRO	90961
	Potential plug link blue	MIRO 6.2 pluggable	3000-90000-0300010
	Potential plug link black	MIRO 6.2 pluggable	3000-90000-0300020
	Potential rail blue 10-pole, spacing 6.2 mm 40-pole, spacing 12 mm	MIRO 6.2 (screw terminals) RMM..., RMMD...	90975 90970
	Potential rail red 10-pole, spacing 6.2 mm 40-pole, spacing 12 mm	MIRO 6.2 (screw terminals) RMM..., RMMD...	90976 90971
	End caps for potential rail blue	MIRO 6.2 RMM..., RMMD...	90980
	End caps for potential rail red	MIRO 6.2 RMM..., RMMD...	90982

RELAYS / SAFETY RELAYS

Wiring accessories			Art-No.
	<p>Wire chain 16-pole Connection cable left and right approx. 50 cm; bk; 1 mm²</p>	<p>MIRO (spring clamp terminals)</p>	<p>90977</p>
	<p>Double spring clamp terminal pluggable</p>	<p>MIRO SAFE+</p>	<p>3000-33010-0000000</p>