

OPTOCOUPPLERS / SEMICONDUCTORS SWITCHING WITHOUT WEAR

- Shortest possible switching times
- High switching frequencies
- Resistant to EMC interference

MILLIONS OF SWITCHING CYCLES – EVEN WITH HIGH FREQUENCIES

Optocouplers and semiconductors are used to combine different signal levels or to isolate one signal from another. They are similar to a relay interface because they provide an optoelectronic signal transfer between input and output.

Optocouplers and semiconductors have a long life span because they don't have any mechanical components that could wear out. They are suitable for applications with high switching frequencies, even over a long time.

Some benefits of optocouplers and semiconductors:

- Silent operation
- No contact bounce
- Galvanic separation between input and output
- High resistance to shock and vibration
- High switching currents
- Low input power

Optocouplers / Semiconductors



Optocouplers

- DC applications

Page 1.11.1



Semiconductors

- AC applications

Page 1.11.17

Terminal optocoupler

– with bridge system

MIRO 6.2

Transistor 1 A
Screw terminals



MIRO 6.2

Transistor 1 A
Spring clamp terminals



MIRO 6.2

Transistor 2 A
Screw terminals

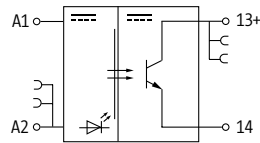


MIRO 6.2

Transistor 2 A
Spring clamp terminals



Circuit diagram



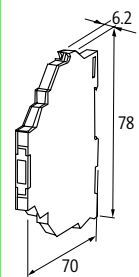
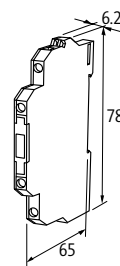
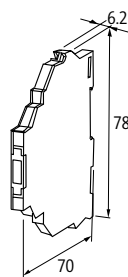
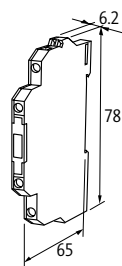
Order Data	Art-No.	Art-No.	Art-No.	Art-No.
24 V DC/6 mA	52515	cURus	6652515	
5 V DC/6 mA			cURus, cCSAus	52502
			cURus, cCSAus	6652502

Input		
Voltage range ON	11...30 V DC	4...5.5 V DC
Voltage range OFF	0...5 V DC	0...2 V DC
Control current	6 mA	
LED display	LED (yellow)	

Output		
Switching voltage	3...48 V DC	5...48 V DC
Switching current per output	500 µA...1 A	1 mA...2 A
Saturation voltage (across output)	max. 0.12 V DC	max. 0.3 V DC
Leakage current (when output is open)	max. 25 µA	max. 10 µA
Switching time ON/OFF	1.5/1 ms (100 mA load)	1/5 ms
Switching frequency	max. 40/4 Hz (resist./ind.)	max. 10/1 Hz (resist./ind.)

General data		
Test isolation voltage	500 V	2.5 kV
Temperature range	-20...+60 °C	
Mounting method	DIN-rail mountable (EN 60715)	
Housing	Black plastic, flame retardant	

Dimension drawing



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Notes

OPTOCOUPLEDERS / SEMICONDUCTORS

Terminal optocoupler

– with bridge system

Approvals:  

MIRO 6.2

Transistor 2 A
Screw terminals



MIRO 6.2

Transistor 2 A
Spring clamp terminals



MIRO 6.2

Transistor 2 A
Screw terminals

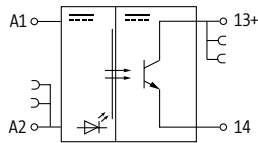


MIRO 6.2

Transistor 2 A
Spring clamp terminals



Circuit diagram



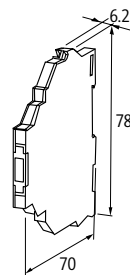
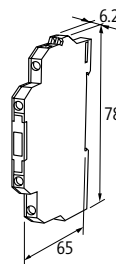
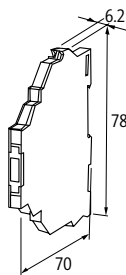
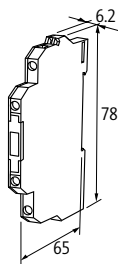
Order Data	Art-No.	Art-No.	Art-No.	Art-No.
24 V DC/6 mA	52501	6652501		
48 V DC/6 mA			52505	6652505

Input		
Voltage range ON	10...48 V DC	18...56 V DC
Voltage range OFF	0...5 V DC	0...12 V DC
Control current	6 mA	
LED display	LED (yellow)	

Output	
Switching voltage	5...48 V DC
Switching current per output	1 mA...2 A
Saturation voltage (across output)	max. 0.3 V DC
Leakage current (when output is open)	max. 10 µA
Switching time ON/OFF	1/5 ms
Switching frequency	max. 10/1 Hz (resist./ind.)

General data	
Test isolation voltage	2.5 kV
Temperature range	-20...+60 °C
Mounting method	DIN-rail mountable (EN 60715)
Housing	Black plastic, flame retardant

Dimension drawing



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Notes

Terminal optocoupler

– with bridge system



MIRO 6.2

Transistor 6 A
Screw terminals



MIRO 6.2

Transistor 6 A
Spring clamp terminals



MIRO 6.2

Transistor 10 A
Screw terminals

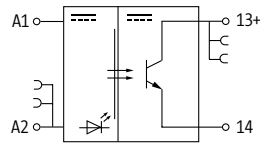


MIRO 6.2

Transistor 10 A
Spring clamp terminals



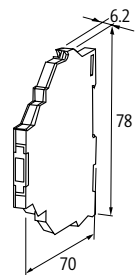
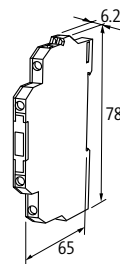
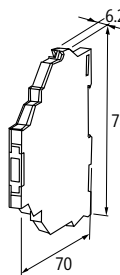
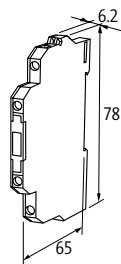
Circuit diagram



Order Data	Art-No.	Art-No.	Art-No.	Art-No.
24 V DC/6 mA	52519	6652519		
24 V DC/10 mA			52520	6652520

Input		
Voltage range ON	10...53 V DC	
Voltage range OFF	0...5 V DC	
Control current	approx. 10 mA	10 mA
LED display	LED (yellow)	
Output		
Switching voltage	5...48 V DC	
Switching current per output	1 mA...6 A (without derating)	1 mA...10 A
Saturation voltage (across output)	max. 0.1 V DC	max. 0.12 V DC
Leakage current (when output is open)	max. 25 µA	
Switching time ON/OFF	2/5 ms	2/5 ms (10 A load)
Switching frequency	max. 1/0.1 Hz (resist./ind.)	
General data		
Test isolation voltage	2.75 kV	
Temperature range	-20...+60 °C	
Mounting method	DIN-rail mountable (EN 60715)	
Housing	Black plastic, flame retardant	

Dimension drawing



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Notes

OPTOCOUPERS / SEMICONDUCTORS

Terminal optocoupler

– with bridge system

Approvals:  

MIRO 6.2

Transistor 10 A
Screw terminals



MIRO 6.2

Transistor 10 A
Spring clamp terminals



MIRO 6.2

Transistor 0.5 A
Screw terminals

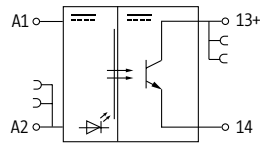


MIRO 6.2

Transistor 0.5 A
Spring clamp terminals



Circuit diagram



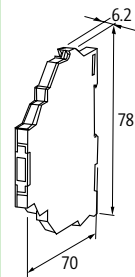
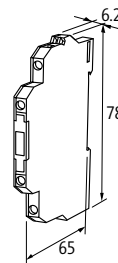
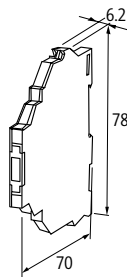
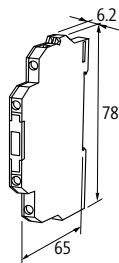
Order Data	Art-No.	Art-No.	Art-No.	Art-No.
24 V DC/10 mA (pulse control operation)	52521	6652521		
24 V DC/6 mA			52500	6652500

Input	
Voltage range ON	10...53 V DC
Voltage range OFF	0...5 V DC
Control current	10 mA
LED display	LED (yellow)

Output	
Switching voltage	5...48 V DC
Switching current per output	1 mA...10 A, overload and short circuit protection switched positive
Saturation voltage (across output)	max. 0.12 V DC
Leakage current (when output is open)	max. 25 µA
Switching time ON/OFF	2/5 ms (10 A load)
Switching frequency	max. 1 Hz

General data	
Test isolation voltage	2.75 kV
Temperature range	-20...+60 °C
Mounting method	DIN-rail mountable (EN 60715)
Housing	Black plastic, flame retardant

Dimension drawing



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Notes

Terminal optocoupler

– with bridge system

MIRO 6.2

Transistor 0.5 A
Screw terminals



MIRO 6.2

Transistor 0.5 A
Spring clamp terminals



MIRO 6.2

Transistor 0.5 A
Screw terminals



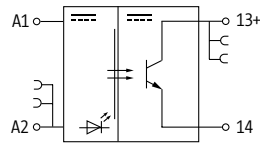
MIRO 6.2

Transistor 0.5 A
Spring clamp terminals



Approvals:

Circuit diagram



Order Data

110 V AC/DC/6 mA

Art-No.

52506

Art-No.

6652506

Art-No.

52507

Art-No.

6652507

230 V AC/6 mA

Input

Voltage range ON

70...130 V AC/DC

90...250 V AC

Voltage range OFF

0...30 V AC/DC

0...40 V AC

Control current

6 mA

7 mA

LED display

LED (yellow)

Output

Switching voltage

5...48 V DC

Switching current per output

0.1 mA...0.5 A

Saturation voltage (across output)

max. 1.2 V DC

Leakage current (when output is open)

max. 0.3 mA

Switching time ON/OFF

100/700 µs

Switching frequency

max. 500/30 Hz (resist./ind.)

General data

Test isolation voltage

3.75 kV

Temperature range

-20...+60 °C

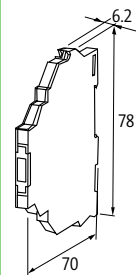
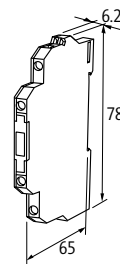
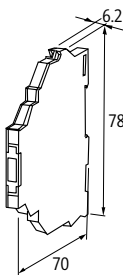
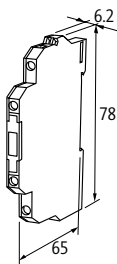
Mounting method

DIN-rail mountable (EN 60715)

Housing

Black plastic, flame retardant

Dimension drawing



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Notes

OPTOCOUPLEDERS / SEMICONDUCTORS

Terminal optocoupler

– with bridge system

Approvals:  

MIRO 6.2

Transistor 2 A
Screw terminals

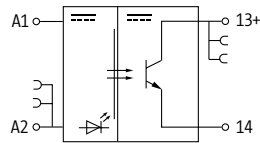


MIRO 6.2

Transistor 2 A
Spring clamp terminals



Circuit diagram

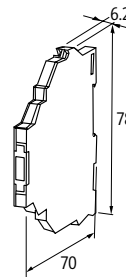
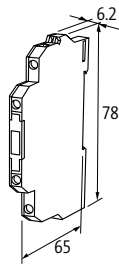


Order Data	Art-No.	Art-No.
230 V AC/6 mA	52508	6652508

Input	
Voltage range ON	90...250 V AC
Voltage range OFF	0...30 V AC
Control current	15 mA
LED display	LED (yellow)
Output	
Switching voltage	5...48 V DC
Switching current per output	1 mA...2 A (without derating)
Saturation voltage (across output)	max. 0.3 V DC
Leakage current (when output is open)	max. 0.3 mA
Switching frequency	max. 10/1 Hz (resist./ind.)
Switching time ON/OFF	3/10 ms

General data	
Test isolation voltage	2.5 kV
Temperature range	-20...+60 °C
Mounting method	DIN-rail mountable (EN 60715)
Housing	Black plastic, flame retardant

Dimension drawing



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Notes

Terminal optocoupler

– with bridge system

Approvals:

MIRO 6.2

Transistor 2 A
Inrush current limiting
Screw terminals



MIRO 6.2

Transistor 2 A
Inrush current limiting
Spring clamp terminals



MIRO 6.2

Transistor 0.5 A
electr. NO/NC contact
Screw terminals

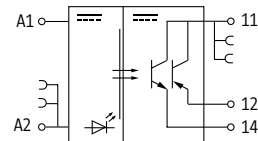
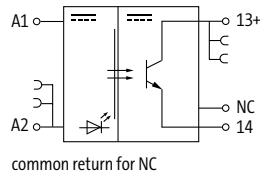


MIRO 6.2

Transistor 0.5 A
electr. NO/NC contact
Spring clamp terminals



Circuit diagram

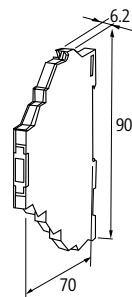
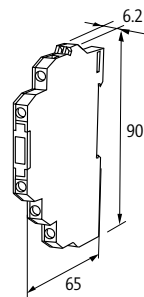
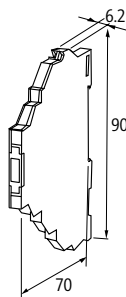
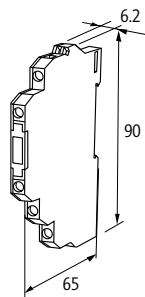


Order Data	Art-No.	Art-No.	Art-No.	Art-No.
24 V DC/6 mA	52512	6652512	52510	6652510

Input				
Voltage range ON	10...53 V DC			
Voltage range OFF	0...5 V DC			
Control current	6 mA			
LED display	LED (yellow)			
Output				
Switching voltage	5...48 V DC			
Switching current per output	1 mA...2 A overload protection		0.1 mA...0.5 A	
Saturation voltage (across output)	max. 0.35 V DC		max. 1.2 V DC	
Leakage current (when output is open)	max. 0.1 mA			
Switching time ON/OFF	5/10 ms		40/150 µs	
Switching frequency	max. 10 Hz			

General data				
Test isolation voltage	2.5 kV		3.75 kV	
Temperature range	-20...+60 °C			
Mounting method	DIN-rail mountable (EN 60715)			
Housing	Black plastic, flame retardant			

Dimension drawing



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Notes

OPTOCOUPLEDERS / SEMICONDUCTORS

Terminal optocoupler

– with bridge system

MIRO 6.2

Transistor 0.5 A
Control current 0.1 mA (5 V DC)
Screw terminals



MIRO 6.2

Transistor 0.5 A
Control current 0.1 mA (5 V DC)
Spring clamp terminals



MIRO 6.2

Transistor 2 A
short-circuit protected
Screw terminals



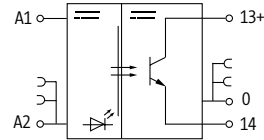
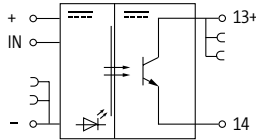
MIRO 6.2

Transistor 2 A
short-circuit protected
Spring clamp terminals



Approvals:

Circuit diagram

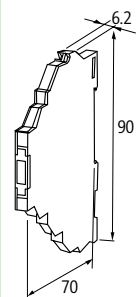
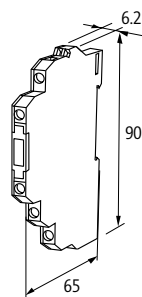
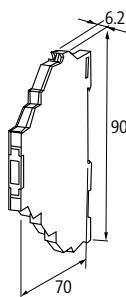
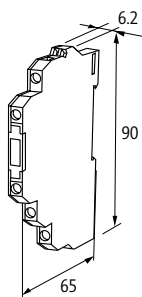


Order Data	Art-No.	Art-No.	Art-No.	Art-No.
24 V DC/0.1 mA (5 V DC)	cCSAus	52511	cCSAus	6652511
24 V DC/6 mA				52503
				6652503

Input		
Voltage range ON	4.2...30 V DC	10...48 V DC
Voltage range OFF	0...2 V DC	0...5 V DC
Control current	0.1 mA (5 V)	6 mA
LED display	LED (yellow)	
Output		
Switching voltage	5...48 V DC	10...35 V DC
Switching current per output	0.1 mA...0.5 A	1 mA...2 A (short-circuit protected)
Saturation voltage (across output)	max. 1.2 V DC	
Leakage current (when output is open)	max. 0.1 mA	
Switching time ON/OFF	12/12 μs	90/120 μs
Switching frequency	max. 20 kHz	max. 1 kHz

General data	
Test isolation voltage	3.75 kV
Temperature range	-20...+60 °C
Mounting method	DIN-rail mountable (EN 60715)
Housing	Black plastic, flame retardant

Dimension drawing



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Notes

Terminal optocoupler

– with bridge system

MIRO 6.2

Transistor 1 A
Multi voltage output
Screw terminals



MIRO 6.2

Transistor 1 A
Multi voltage output
Spring clamp terminals



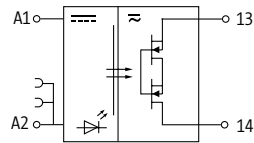
MIRO 6.2

Transistor 2 A
Spring clamp terminals

MIRO 6.2

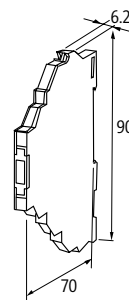
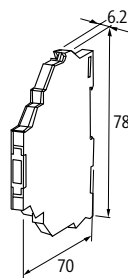
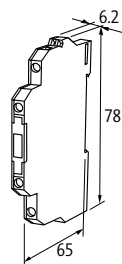
Transistor 0.1 A
Spring clamp terminals

Circuit diagram



Order Data	Art-No.	Art-No.	Art-No.	Art-No.
24 V DC / 10 mA	52572	6652572	526071	526100
Input				
Voltage range ON	10...53 V DC		10...35 V DC	10...30 V DC
Voltage range OFF	0...5 V DC			0...7 V DC
Control current	10 mA	6 mA		5.5 mA
LED display	LED (yellow)	LED (green)		LED (yellow)
Output				
Switching time ON/OFF	3/6 ms	7/6 µs		0.4/0.1 µs
Switching voltage	5...250 V AC / 5...350 V DC	10...30 V DC		5...48 V DC
Switching current per output	1 mA...1 A	1 mA...2 A		0...0.1 A
Saturation voltage (across output)	max. 0.7 V AC/DC	max. 0.3 V AC/DC		max. 1.2 V AC/DC
Leakage current (when output is open)	max. 25 µA			max. 250 µA
Switching frequency	max. 10 Hz	max. 30 kHz / 400 Hz (resist./ind.)		500 kHz (ohmic)
General data				
Test isolation voltage	2.75 kV	2.5 kV		2.75 kV
Temperature range	-20...+60 °C			
Mounting method	DIN-rail mountable (EN 60715)			
Housing	Black plastic, flame retardant			

Dimension drawing



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Notes

OPTOCOUPLEDERS / SEMICONDUCTORS

Terminal optocoupler

– Isolation function in output circuit

Approvals:  

MIRO 6.2

Transistor 2 A
Screw terminals

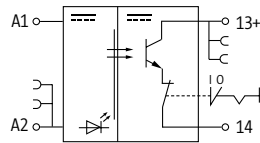


MIRO 6.2

Transistor 2 A
Spring clamp terminals



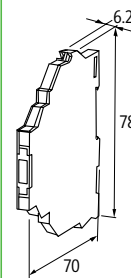
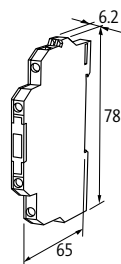
Circuit diagram



Order Data	Art-No.	Art-No.
24 V DC / 7 mA	52513	6652513

Input	
Voltage range ON	10...48 V DC
Voltage range OFF	0...5 V DC
Control current	7 mA
LED display	LED (yellow)
Output	
Switching time ON/OFF	1/5 ms
Switching current per output	1 mA...2 A
Switching voltage	5...48 V DC
Saturation voltage (across output)	max. 0.3 V DC
Leakage current (when output is open)	max. 0.3 mA
Switching frequency	max. 10/1 Hz (resist./ind.)
General data	
Temperature range	-20...+60 °C
Housing	Black plastic, flame retardant
Test isolation voltage	2.5 kV
Mounting method	DIN-rail mountable (EN 60715)

Dimension drawing



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Notes

Optocouplers

- Inrush current limiting
- Screw terminals

AMMS

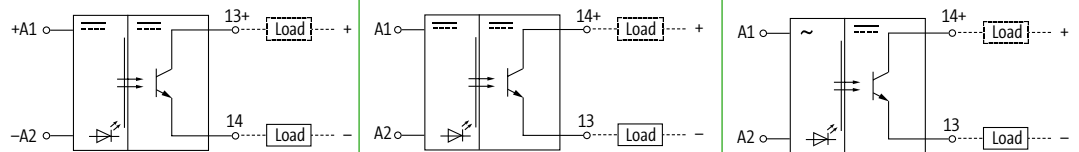
Transistor 1.2 A



EMMS

Transistor 1.2 A

Circuit diagram



Order Data

	Art-No.	Art-No.	Art-No.
3.5...5.5 V DC/6 mA	50041		
24 V DC/6 mA		50040	
110/230 V AC/2.7 mA			50105

Input

Voltage range ON	3.5...5.5 V DC	10...53 V DC	100...253 V AC
Voltage range OFF	0...0.8 V DC	0...3 V DC	0...40 V AC
Input current	6 mA		2.7 mA
LED display	LED (red)		

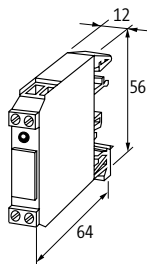
Output

Leakage current (when output is open)	max. 0.3 mA		
Switching current per output	1 mA...1.2 A		
Switching voltage	4.5...53 V DC		
Saturation voltage (across output)	max. 1.2 V DC		
Switching time ON/OFF	100/700 μ s		20/50 ms
Switching frequency	max. 500 Hz (resist.) at max. 0.2 A/max. 30 Hz (ind.)		max. 5 Hz

General data

Test isolation voltage	3.75 kV		
Temperature range	-20...+60 °C		
Mounting method	DIN-rail mountable TH35 or G32 (EN 60715)		
Housing	Black plastic, flame retardant		

Dimension drawing



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Notes

OPTOCOUPLEDERS / SEMICONDUCTORS

Optocouplers

- Inrush current limiting
- Screw terminals

AMMS

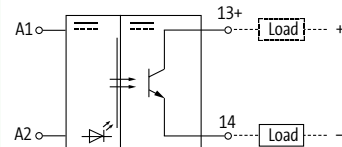
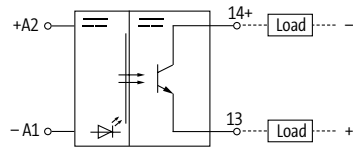
Transistor 1.2 A



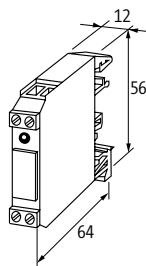
AMMS

Transistor 2 A

Circuit diagram



Order Data	Art-No.	Art-No.
4...30 V DC/10 mA	50010	
24 V DC/6 mA		50070
Input		
Voltage range ON	4...30 V DC	10...53 V DC
Voltage range OFF	0...2 V DC	0...3 V DC
Input current	max. 10 mA	6 mA
LED display	LED (red)	
Output		
Switching voltage	4.5...44 V DC	4.5...40 V DC
Switching current per output	1 mA...1.2 A	10 mA...2 A
Saturation voltage (across output)	max. 1.2 V DC	max. 0.1 V DC
Leakage current (when output is open)	max. 0.3 mA	max. 0.1 mA
Switching time ON/OFF	65/65 μ s	2/8 ms
Switching frequency	max. 7 kHz (resist.) at max. 0.3 A/max. 10 Hz (ind.)	max. 2.5 Hz
General data		
Test isolation voltage	3.75 kV	2.5 kV
Temperature range	-20...+60 °C	
Mounting method	DIN-rail mountable TH35 or G32 (EN 60715)	
Housing	Black plastic, flame retardant	
Dimension drawing		



Dimension drawing

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Notes

Optocouplers

– Double terminals on the output side

– Screw terminals

AMMDS

Transistor 0.1 A
with minus plug link



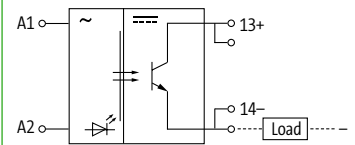
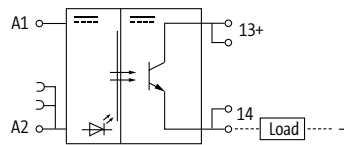
AMMDS

Transistor 2 A
with minus plug link

AMMDS

Transistor 0.1 A

Circuit diagram



Order Data

24 V DC/6 mA

Art-No.

50081

Art-No.

50080

Art-No.

50110

230 V AC/10 mA

50110

Input

LED display	LED (red)		
Input current	6 mA		7.5 mA
Plug link (supplied)	Art.-Nr. 90960		–
Voltage range ON	10...53 V DC		195...253 V AC
Voltage range OFF	0...3 V DC		0...110 V AC

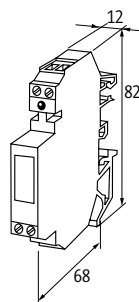
Output

Switching voltage	4...40 V DC	4...35 V DC	4...40 V DC
Switching current per output	1 mA...0.1 A	10 mA...2 A (short-circuit protected)	1 mA...0.1 A
Saturation voltage (across output)	max. 1.2 V DC	max. 0.5 V DC	max. 1.2 V DC
Leakage current (when output is open)	max. 0.3 mA		
Switching time ON/OFF	1.5/2 ms	5/15 ms	50/120 ms
Switching frequency	max. 300/40 Hz (resist./ind.)	max. 10/1 Hz (resist./ind.)	

General data

Temperature range	-20...+60 °C		
Mounting method	DIN-rail mountable TH35 or G32 (EN 60715)		
Housing	Black plastic, flame retardant		
Test isolation voltage	3.75 kV	2.5 kV	3.75 kV

Dimension drawing



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Notes

OPTOCOUPLEDERS / SEMICONDUCTORS

Optocouplers

– with minus plug link

– Screw terminals

AMMDS

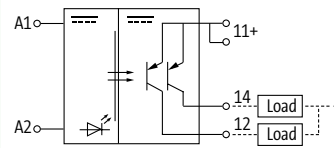
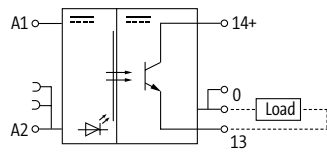
Transistor 2 A
Double terminals on the output side
for rapid switching



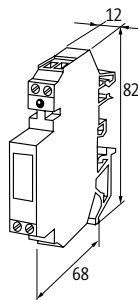
AMMDS

Transistor 1 A

Circuit diagram



Order Data	Art-No.	Art-No.
24 V DC/15 mA	50082	
24 V AC/DC/10 mA		50085
Input		
Voltage range ON	10...35 V DC	10...53 V DC
Voltage range OFF	0...5 V DC	0...6 V DC
Input current	10 mA	
LED display	LED (red)	
Plug link (supplied)	Art.-Nr. 90960	–
Output		
Switching voltage	5...35 V DC	4.5...53 V DC
Switching current per output	1 mA...2 A	1 mA...1 A
Saturation voltage (across output)	max. 0.5 V DC	
Leakage current (when output is open)	max. 0.3 mA	
Switching time ON/OFF	7/6 µs	25/75 µs
Switching frequency	max. 30 kHz/200 Hz (resist./ind.)	max. 1 kHz/10 Hz (resist./ind.)
General data		
Test isolation voltage	2.5 kV	
Temperature range	-20...+60 °C	
Mounting method	DIN-rail mountable TH35 or G32 (EN 60715)	
Housing	Black plastic, flame retardant	
Dimension drawing		



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Notes

Power opto-coupler modules

– Screw terminals

AMS

Transistor 4 A



AMS

Transistor 2 A (3-way)
3 NO contacts

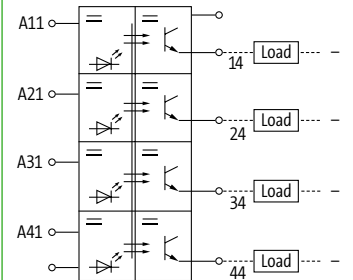
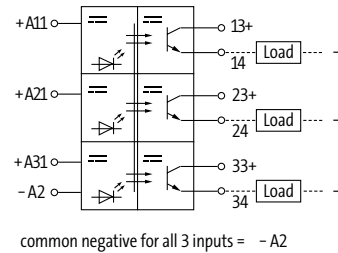
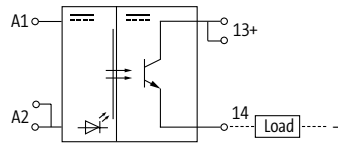


AMS

Transistor 2 A (4-way)
4 NO

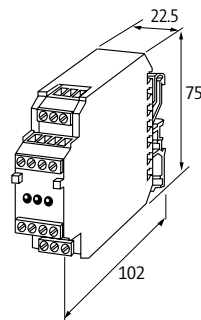


Circuit diagram



Order Data	Art-No.	Art-No.	Art-No.
24 V DC/10 mA	50044	50043	
24 V DC/3 mA			cCSAus 50015
Input			
Voltage range ON	10...53 V DC		20...30 V DC
Voltage range OFF	0...3 V DC		0...6 V DC
Input current	14.5 mA	10 mA	27 mA
LED display	LED (red)		LED (yellow)
Output			
Switching voltage	4.5...53 V DC	4.5...35 V DC	5...30 V DC
Switching current per output	100 mA...4 A	10 mA...2 A (short-circuit protected)	1 mA...2 A
Saturation voltage (across output)	max. 1.5 V AC	max. 0.5 V DC	max. 0.05 V DC
Leakage current (when output is open)	max. 10 mA	max. 0.3 mA	max. 0.01 mA
Switching time ON/OFF	4/7 µs	2/15 ms	1/5 ms
Switching frequency	max. 2 kHz/4 Hz (resist./ind.)	max. 10/1 Hz (resist./ind.)	
General data			
Test isolation voltage	3.75 kV	2.5 kV	
Temperature range	-20...+60 °C		-25...+50 °C
Mounting method	DIN-rail mountable TH35 or G32 (EN 60715)		
Housing	Black plastic, flame retardant		

Dimension drawing



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Notes

OPTOCOUPLEDERS / SEMICONDUCTORS

Optocouplers

- DC Motor control
- Over current / temperature monitoring

MIRO 12.4

Transistor 3 A
Screw terminals

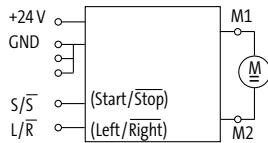


MIRO 12.4

Transistor 3 A
Spring clamp terminals



Circuit diagram



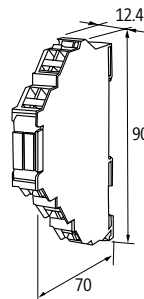
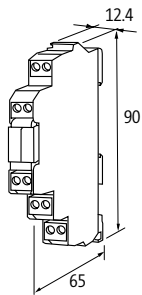
Order Data	Art-No.	Art-No.
24 V DC/10 mA	50140	6650140

Input	
Voltage range ON	15...30 V DC
Voltage range OFF	0...5 V DC
Input current	10 mA
LED display	LED (yellow): right running; LED (green): left running

Output	
Switching voltage	19.2...30 V DC
Switching current per output	max. 3 A
Highest current	approx. 6 A for 100 ms
Saturation voltage (across output)	max. 1.4 V DC
Leakage current (when output is open)	max. 10 mA
Switching time ON/OFF	1.2/10 ms
Switching frequency	max. 1 Hz (motor dependant)
Changing time	max. 50 ms
LED display	LED (red): error (over current/over heated)

General data	
Test isolation voltage	no galvanic separation
Temperature range	0...+50 °C
Mounting method	DIN-rail mountable TH35 or G32 (EN 60715)
Housing	Black plastic, flame retardant

Dimension drawing



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Notes

Terminal triac

– Zero potential switch

MIRO 6.2

Triac 0.5 A
Screw terminals



MIRO 6.2

Triac 0.5 A
Spring clamp terminals



MIRO 6.2

Triac 0.5 A
Screw terminals



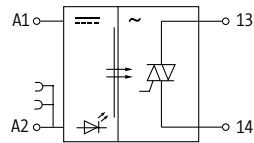
MIRO 6.2

Triac 0.5 A
Spring clamp terminals



Approvals: **ULus**

Circuit diagram



Order Data

	Art-No.	Art-No.	Art-No.	Art-No.
5 V DC/6 mA	52551	6652551		
24 V DC/6 mA			52550	6652550

Input

Voltage range ON	4...5.5 V DC	10...53 V DC
Voltage range OFF	0...2 V DC	0...5 V DC
Control current	6 mA	
LED display	LED (yellow)	

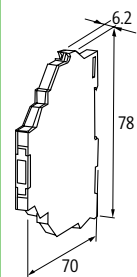
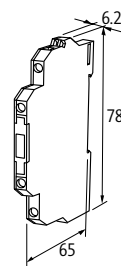
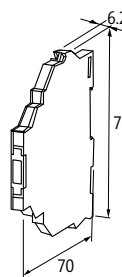
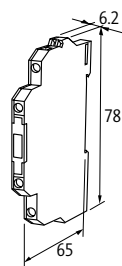
Output

Switching voltage	24...250 V AC
Switching current per output	2 mA...0.5 A 1.5 mA...0.5 A
Saturation voltage (across output)	max. 1.5 V AC
Leakage current (when output is open)	max. 0.3 mA
Switching time ON/OFF	10/10 ms
Switching frequency	max. 20 Hz, depending on suppression

General data

Test isolation voltage	2.5 kV
Temperature range	-20...+60 °C
Mounting method	DIN-rail mountable (EN 60715)
Housing	Black plastic, flame retardant

Dimension drawing



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Notes

OPTOCOUPPLERS / SEMICONDUCTORS

Terminal triac

– Zero potential switch

MIRO 6.2

Triac 1 A
Screw terminals

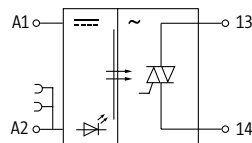


MIRO 6.2

Triac 1 A
Spring clamp terminals



Circuit diagram

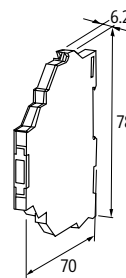
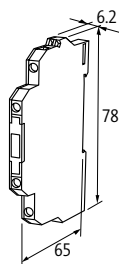


Order Data	Art-No.	Art-No.
24 V DC/9 mA	52571	6652571

Input	
Voltage range ON	12...53 V DC
Voltage range OFF	0...3 V DC
Control current	12 mA (24 V DC)
LED display	LED (yellow)
Output	
Switching voltage	12...250 V AC
Switching current per output	10 mA...1 A
Saturation voltage (across output)	max. 1.5 V AC
Leakage current (when output is open)	max. 1 mA
Switching time ON/OFF	10/10 ms
Switching frequency	max. 2 Hz, depending on suppression

General data	
Test isolation voltage	2.5 kV
Temperature range	0...+60 °C
Mounting method	DIN-rail mountable (EN 60715)
Housing	Black plastic, flame retardant

Dimension drawing



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Notes

OPTOCOUPLEDERS / SEMICONDUCTORS

Terminal triac

– Zero potential switch

MIRO 6.2

Triac 0.5 A
Screw terminals



MIRO 6.2

Triac 0.5 A
Spring clamp terminals



MIRO 6.2

Triac 0.5 A
Screw terminals



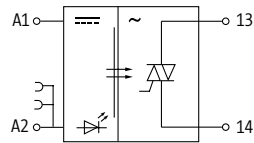
MIRO 6.2

Triac 0.5 A
Spring clamp terminals



Approvals: **us**

Circuit diagram



Order Data

110 V AC/DC (95...121VAC/DC - 4 mA)

Art-No.

52556

Art-No.

6652556

Art-No.

52557

Art-No.

6652557

230 V AC/7 mA

Input

Voltage range ON

70...130 V AC/DC

140...250 V AC

Voltage range OFF

0...35 V AC/DC

0...80 V AC

Control current

4 mA

7 mA

LED display

LED (yellow)

Output

Switching voltage

12...250 V AC

Switching current per output

2 mA...0.5 A

Saturation voltage (across output)

max. 1.5 V AC

Leakage current (when output is open)

max. 0.3 A

max. 0.3 mA

Switching time ON/OFF

10/10 ms

Switching frequency

max. 20 Hz, depending on suppression

General data

Test isolation voltage

2.5 kV

Temperature range

-20...+60 °C

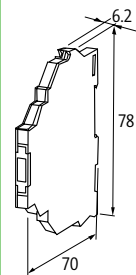
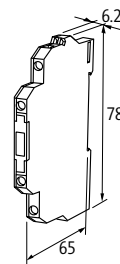
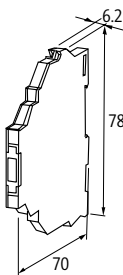
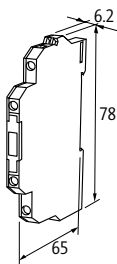
Mounting method

DIN-rail mountable (EN 60715)

Housing

Black plastic, flame retardant

Dimension drawing



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Notes

OPTOCOUPLEDERS / SEMICONDUCTORS

Terminal triac

– Zero potential switch

MIRO 6.2

Triac 0.5 A
Screw terminals

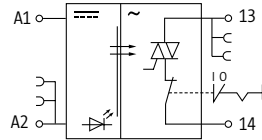


MIRO 6.2

Triac 0.5 A
Spring clamp terminals



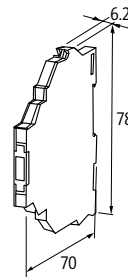
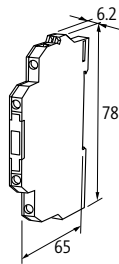
Circuit diagram



Order Data	Art-No.	Art-No.
24 V DC / 7 mA	52561	6652561

Input	
Voltage range ON	10...53 V DC
Voltage range OFF	0...5 V DC
Control current	7 mA
LED display	LED (yellow)
Output	
Switching voltage	24...250 V AC
Switching current per output	2 mA...0.5 A
Saturation voltage (across output)	max. 1.5 V AC
Leakage current (when output is open)	max. 0.3 mA
Switching time ON/OFF	10/10 ms
Switching frequency	max. 20/1 Hz (resist./ind.)
General data	
Test isolation voltage	2.5 kV
Temperature range	-20...+60 °C
Mounting method	DIN-rail mountable (EN 60715)
Housing	Black plastic, flame retardant

Dimension drawing



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Notes

Triac modules MIRO

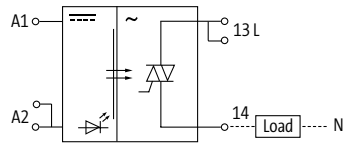
- Zero potential switch
- Screw plug-in terminals

MIRO Triac

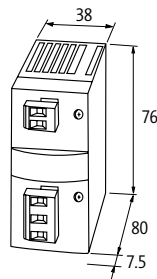
Triac 5 A



Circuit diagram



Order Data	Art-No.	Art-No.	Art-No.
24 V DC / 7.8 mA	3000-36001-2000020		
115 V AC / 9 mA		3000-36001-2000022	
230 V AC / DC - 10 mA			3000-36001-3000023
Input			
Voltage range ON	10...53 V DC	70...150 V AC	140...253 V AC
Voltage range OFF	0...3 V DC	0...25 V AC	0...50 V AC
Control current	approx. 7.8 mA	approx. 9 mA	approx. 10 mA
Control voltage	24 V DC	115 V AC	230 V AC
LED display	LED (green)		
Output			
Switching voltage	12...400 V AC		
Switching current per output	10 mA...5 A (no derating)		
Saturation voltage (across output)	max. 0.15 V AC		
Leakage current (when output is open)	max. 1 mA		
Switching time ON/OFF	10/10 ms		
Switching frequency	max. 20/1 Hz (resist./ind.)		
Surge current	70 A		
General data			
Temperature range	-20...+60 °C		
Housing	Black plastic, flame retardant		
Mounting method	DIN-rail mountable (EN 60715)		
Dimension drawing			



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Notes

OPTOCOUPLEDERS / SEMICONDUCTORS

Triac modules MIRO

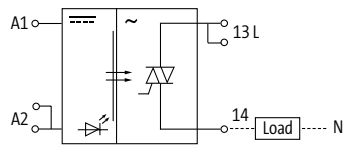
- Zero potential switch
- Screw plug-in terminals

MIRO Triac

Triac 10 A



Circuit diagram



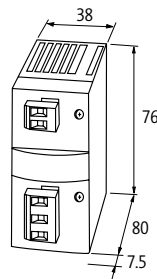
Order Data	Art-No.	Art-No.	Art-No.
24 V DC / 7.8 mA	3000-36001-2000025		
115 V AC / 9 mA		3000-36001-2000027	
230 V AC / DC - 10 mA			3000-36001-3000028

Input			
Voltage range ON	10...53 V DC	70...150 V AC	140...253 V AC
Voltage range OFF	0...3 V DC	0...25 V AC	0...50 V AC
Control current	approx. 7.8 mA	approx. 9 mA	approx. 10 mA
Control voltage	24 V DC	115 V AC	230 V AC
LED display	LED (green)		

Output	
Switching voltage	12...400 V AC
Switching current per output	100 mA / 10 A (no derating)
Saturation voltage (across output)	max. 0.15 V AC
Leakage current (when output is open)	max. 1 mA
Switching time ON/OFF	10/10 ms
Switching frequency	max. 20/1 Hz (resist./ind.)
Surge current	70 A

General data	
Temperature range	-20...+60 °C
Housing	Black plastic, flame retardant
Mounting method	DIN-rail mountable (EN 60715)

Dimension drawing



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Notes

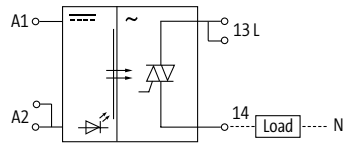
Triac modules

- Zero potential switch
- Screw terminals

AMS
Triac 4 A



Circuit diagram



Order Data

24 V DC/10 mA

Art-No.

50034

Input

Voltage range ON 10...53 V DC

Voltage range OFF 0...3 V DC

Input current 10 mA

LED display LED (red)

Output

Switching voltage 24...250 V AC

Switching current per output 10 mA...4 A

Saturation voltage (across output) max. 1.4 V AC

Leakage current (when output is open) max. 10 mA

Switching time ON/OFF 10/10 ms

Switching frequency max. 30/5 Hz (resist./ind.)

General data

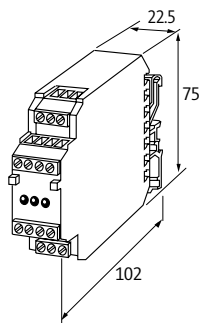
Test isolation voltage 6 kV

Temperature range -20...+60 °C

Mounting method DIN-rail mountable TH35 or G32 (EN 60715)

Housing Black plastic, flame retardant

Dimension drawing



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Notes

OPTOCOUPLEDERS / SEMICONDUCTORS

Triac modules

- Zero potential switch
- Screw terminals

AMMS

Triac 1 A

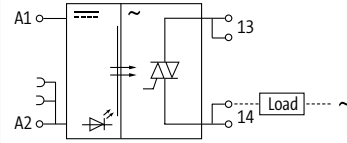
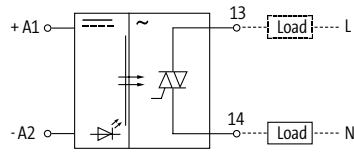


AMMDS

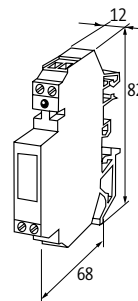
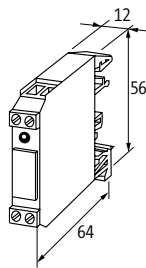
Triac 2 A
with minus plug link



Circuit diagram



Order Data	Art-No.	Art-No.
24 V DC/6 mA	50030	50092
Input		
Voltage range ON	10...53 V DC	10...35 V DC
Voltage range OFF	0...3 V DC	
Input current	6.6 mA	6 mA
LED display	LED (red)	
Plug link (supplied)	-	Art-Nr. 90960
Output		
Switching voltage	24...253 V AC	24...280 V AC
Switching current per output	50 mA...1 A	50 mA...2 A
Saturation voltage (across output)	max. 1.3 V AC	max. 1 V AC
Leakage current (when output is open)	max. 5 mA	max. 2 mA
Switching time ON/OFF	10/10 ms	
Switching frequency	max. 20 Hz	max. 20/5 Hz (resist./ind.)
General data		
Test isolation voltage	2.5 kV	
Temperature range	-20...+60 °C	
Mounting method	DIN-rail mountable TH35 or G32 (EN 60715)	
Housing	Black plastic, flame retardant	
Dimension drawing		




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Notes

Labeling accessories			Art-No.
	ACS label plate KM 5 for self marking (9 × 20 mm)		7000-99001-0000000
	Label plate KM 4 5 × 10 mm		90931
	ACS label plate KM 6/18 for self marking with ADEMARK markers		7000-99003-0000000
	Label plate KWI 5/15 (88 pieces per plate)		90901
Wiring accessories			Art-No.
	Potential plug link max. 50 V/2 A	MIRO	90961
	Potential plug link max. 48 V/2 A	RMM..., RMMD...	90960
	Potential rail blue 40-pole, spacing 12 mm	RMM..., RMMD...	90970
	10-pole, spacing 6.2 mm	MIRO 6.2 (screw terminals)	90975
	Potential rail red 40-pole, spacing 12 mm	RMM..., RMMD...	90971
	10-pole, spacing 6.2 mm	MIRO 6.2 (screw terminals)	90976
End caps for potential rail			
blue		MIRO 6.2	90980
red		RMM..., RMMD...	90982

OPTOCOUPERS / SEMICONDUCTORS

Wiring accessories			Art-No.
	Wire chain 16-pole Connection cable left and right approx. 50 cm; bk; 1 mm ²	MIRO (spring clamp terminals)	90977