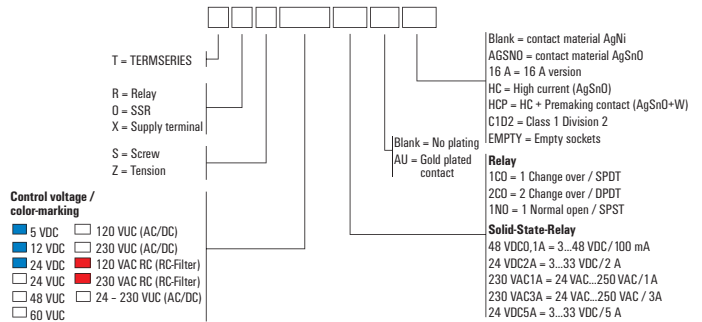




Solid-state relay, 3...48 V DC / 100 mA

Output versions



Ordering data

	5 V DC	12 V DC	24 V DC	24 V UC	48 V UC
<b>Control side</b>					
Rated control voltage	5 V DC ±20 %	12 V DC ±20 %	24 V DC ±20 %	24 V UC ±10 %	48 V UC ±10 %
Nominal control current	7 mA DC (±20 %)	9.6 mA DC (±20 %)	10 mA DC ±20 %	10 mA AC ±20 %, 6 mA DC (±20 %)	8 mA AC (±20 %), 7 mA DC (±20 %)
Power rating	35 mW	112 mW	240 mW	154 mW	290 mVA / 192 mW
Cut-in / dropout voltage	3.4 V / 1.5 V DC	4.7 V / 4.6 V DC	17 V / 10 V DC	18 V / 12 V AC, 14 V / 13 V DC	36 V / 19 V AC, 36 V / 19 V DC
Input frequency	10 Hz	10 Hz	300 Hz	DC: 100 Hz / AC: 3 Hz	DC: 100 Hz / AC: 3 Hz
Status indicator	Green LED	Green LED	Green LED	Green LED	Green LED
Protective circuit	Reverse polarity protection, Integrated free-wheel diode	Reverse polarity protection, Integrated free-wheel diode	Reverse polarity protection, Integrated free-wheel diode	Rectifier	Rectifier
<b>Load side</b>					
Switch-on delay	< 6.5 ms	< 6.5 ms	< 35 µs	< 55 µs	< 55 µs
Switch-off delay	< 10 ms	< 10 ms	< 355 µs	< 4 ms	< 4 ms

Ordering data					
Screw connection	Type	TOS 5VDC 48VDC0,1A	TOS 12VDC 48VDC0,1A	TOS 24VDC 48VDC0,1A	TOS 24VUC 48VDC0,1A
	Order No.	<b>1126920000</b>	<b>1126930000</b>	<b>1126940000</b>	<b>1126950000</b>
Tension clamp conn.	Type	TOZ 5VDC 48VDC0,1A	TOZ 12VDC 48VDC0,1A	TOZ 24VDC 48VDC0,1A	TOZ 24VUC 48VDC0,1A
	Order No.	<b>1127030000</b>	<b>1127040000</b>	<b>1127050000</b>	<b>1127060000</b>
<b>Note</b>		Spare solid-state relay Type: SSS 5 V/24 V 0.1 A DC Orderno.: 4064320000	Spare solid-state relay Type: SSS 5 V/24 V 0.1 A DC Orderno.: 4064320000	Spare solid-state relay Type: SSS 24 V/24 V 0.1 A DC Orderno.: 4061180000	Spare solid-state relay Type: SSS 24 V/24 V 0.1 A DC Orderno.: 4061180000

Ordering data

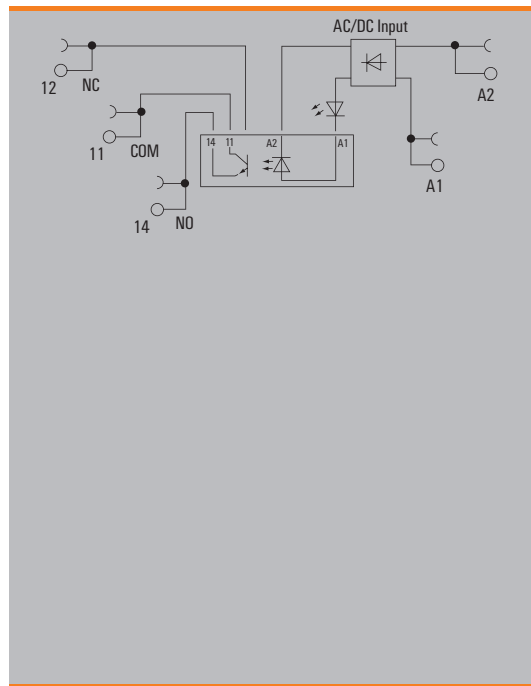
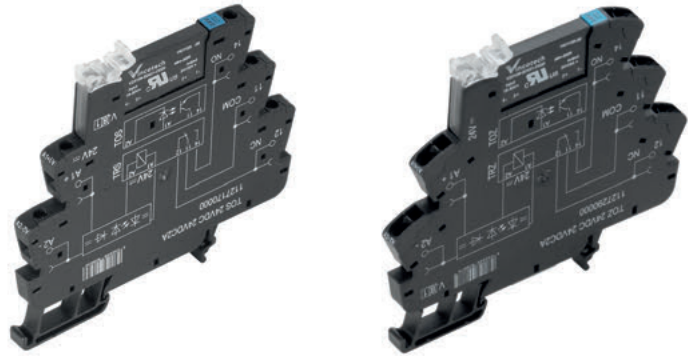
	60 V UC	120 V UC	230 V UC	120 V AC RC	230 V AC RC
<b>Control side</b>					
Rated control voltage	60 V UC ±10 %	120 V UC ±10 %	230 V UC ±10 %	120 V AC ±10 %	230 V AC ±10 %
Nominal control current	5 mA AC (±20 %), 3 mA DC (±20 %)	5 mA AC (±30 %), 3 mA DC (±30 %)	3.5 mA AC (±30 %), 3 mA DC (±30 %)	7 mA AC (±20 %)	9 mA AC
Power rating	< 300 mW	0.48 VA	0.8 VA / 660 mW	0.84 VA	2.1 VA
Cut-in / dropout voltage	37 V / 20 V AC, 35 V / 26 V DC	82 V / 65 V AC, 86 V / 74 V DC	159 V / 99 V AC, 145 V / 128 V DC	79 V / 60 V AC	129 V / 90 V AC
Input frequency	DC: 10 Hz / AC: 3 Hz	3 Hz	3 Hz	3 Hz	3 Hz
Status indicator	Green LED	Green LED	Green LED	Green LED	Green LED
Protective circuit	Rectifier	Rectifier	Rectifier	RC element	RC element
<b>Load side</b>					
Switch-on delay	< 6.5 ms	< 6.5 ms	< 7 ms	< 6.5 ms	< 7 ms
Switch-off delay	< 10 ms	< 10 ms	< 10 ms	< 10 ms	< 10 ms

Ordering data					
Screw connection	Type	TOS 60VUC 48VDC0,1A	TOS 120VUC 48VDC0,1A	TOS 230VUC 48VDC0,1A	TOS 120VAC RC 48VDC0,1A
	Order No.	<b>1126970000</b>	<b>1126980000</b>	<b>1126990000</b>	<b>1127000000</b>
Tension clamp conn.	Type	TOZ 60VUC 48VDC0,1A	TOZ 120VUC 48VDC0,1A	TOZ 230VUC 48VDC0,1A	TOZ 120VAC RC 48VDC0,1A
	Order No.	<b>1127080000</b>	<b>1127090000</b>	<b>1127100000</b>	<b>1127110000</b>
<b>Note</b>		Spare solid-state relay Type: SSS 60 V/24 V 0.1 A DC Orderno.: 4061230000	Spare solid-state relay Type: SSS 60 V/24 V 0.1 A DC Orderno.: 4061230000	Spare solid-state relay Type: SSS 60 V/24 V 0.1 A DC Orderno.: 4061230000	Spare solid-state relay Type: SSS 60 V/24 V 0.1 A DC Orderno.: 4061230000

**Solid-state relay, 3...48 V DC / 100 mA**

**Output versions, multi-voltage input**

- Space saving, just 6.4 mm modular width
- 5 cross-connection levels
- Screw and tension clamp connection
- Multi-voltage input: 24 to 230 V UC in one module



**Technical data**

Load side	
Rated switching voltage	3... 48 V DC
Continuous current	100 mA
Inrush current	
Solid-state type	Bipolar transistor
Voltage drop at max. load	≤ 1 V
Leakage current	< 10 µA
Protective circuit, load side	Integrated free-wheel diode
Short-circuit-proof / Protective circuit, load side	No / Integrated free-wheel diode
General data	
Ambient temperature (operational)	-20 °C...60 °C
Storage temperature	-40 °C...70 °C
Humidity	5-95% rel. humidity, T <sub>v</sub> = 40°C, no condensation
Approvals	CE, cULus, EAC, GL
Insulation coordination (EN 50178)	
Rated voltage	300 V
Impulse withstand voltage	6 kV (1.2/50 µs)
Dielectric strength for control side - load side	2.5 kV <sub>eff</sub>
Dielectric strength to mounting rail	4 kV <sub>eff</sub> / 1 min.
Clearance and creepage distances for control side - load side	≥ 5.5 mm
Overvoltage category	III
Pollution degree	2
Dimensions	
Clamping range (nominal / min. / max.)	mm <sup>2</sup> 1.5 / 0.14 / 2.5
Depth x width x height	mm 88 / 6.4 / 90
Note	
Accessories and dimensional drawings: refer to the TERMSERIES Accessories page.	

**Ordering data**

Control side	
Rated control voltage	24...230 V UC ±10 %
Nominal control current	22 mA @ 24 V DC, 4 mA @ 230 V AC
Power rating	530 mW @ 24 V DC, 930 mVA @ 230 V AC
Cut-in / dropout voltage	11.5 V / 6 V AC 11.5 V / 5 V DC
Input frequency	3 Hz
Status indicator	Green LED
Protective circuit	Rectifier
Load side	
Switch-on delay	< 20 ms
Switch-off delay	< 100 ms

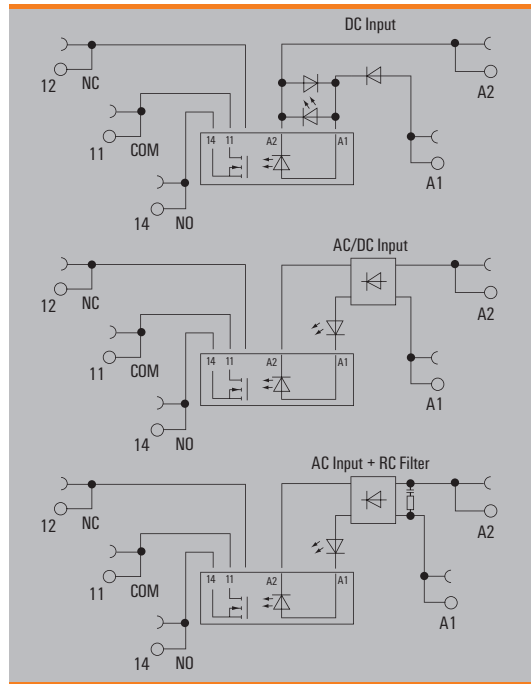
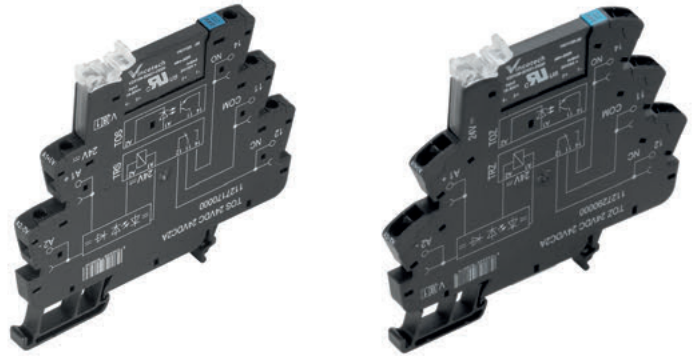
Ordering data	
Screw connection	Type TOS 24-230VUC 48VDC0,1A
Order No.	1127020000
Tension clamp conn.	Type TOZ 24-230VUC 48VDC0,1A
Order No.	1127130000
Note	
Spare solid-state relay Type: SSS 24 V/24 V 0.1A DC Orderno.: 4061180000	



**Solid-state relay, 3...33 V DC / 2 A**

**Output versions**

- Space saving, just 6.4 mm modular width
- 5 cross-connection levels
- Screw and tension clamp connection



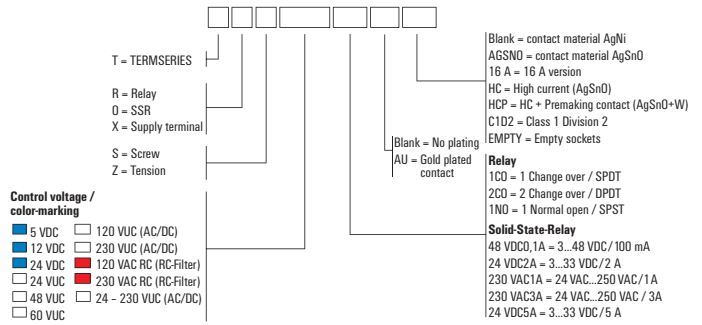
**Technical data**

Load side	
Rated switching voltage	3...33 V DC
Continuous current	2 A
Inrush current	
Solid-state type	MOS-FET
Voltage drop at max. load	≤ 120 mV
Leakage current	< 10 µA
Protective circuit, load side	Integrated free-wheel diode
Short-circuit-proof / Protective circuit, load side	No / Integrated free-wheel diode
General data	
Ambient temperature (operational)	-20 °C...60 °C
Storage temperature	-40 °C...70 °C
Humidity	5-95% rel. humidity, T <sub>v</sub> = 40°C, no condensation
Approvals	CE, cULus, EAC, GL
Insulation coordination (EN 50178)	
Rated voltage	300 V
Impulse withstand voltage	6 kV (1.2/50 µs)
Dielectric strength for control side - load side	2.5 kV <sub>eff</sub>
Dielectric strength to mounting rail	4 kV <sub>eff</sub> / 1 min.
Clearance and creepage distances for control side - load side	≥ 5.5 mm
Overvoltage category	III
Pollution degree	2
Dimensions	
Clamping range (nominal / min. / max.)	mm <sup>2</sup> 1.5 / 0.14 / 2.5
Depth x width x height	mm 88 / 6.4 / 90
Note	
Accessories and dimensional drawings: refer to the TERMSERIES Accessories page.	

Dimensions	Screw connection	Tension clamp conn.
Clamping range (nominal / min. / max.)	mm <sup>2</sup> 1.5 / 0.14 / 2.5	1.5 / 0.14 / 2.5
Depth x width x height	mm 88 / 6.4 / 90	88 / 6.4 / 90

Solid-state relay, 3...33 V DC / 2 A

Output versions



Ordering data

	5 V DC	12 V DC	24 V DC	24 V UC	48 V UC
<b>Control side</b>					
Rated control voltage	5 V DC ±20 %	12 V DC ±20 %	24 V DC ±20 %	24 V UC ±10 %	48 V UC ±10 %
Nominal control current	10 mA DC ±20 %	9.6 mA DC (±20 %)	10 mA DC ±20 %	10 mA AC ±20 %, 6 mA DC (±20 %)	8 mA AC (±20 %), 7 mA DC (±20 %)
Power rating	50 mW	112 mW	240 mW	154 mW	290 mVA / 192 mW
Cut-in / dropout voltage	3.4 V / 1.5 V DC	4.7 V / 4.6 V DC	17 V / 10 V DC	18 V / 12 V AC 14 V / 13 V DC	36 V / 19 V AC 36 V / 19 V DC
Input frequency	300 Hz	300 Hz	300 Hz	DC: 10 Hz / AC: 3 Hz	DC: 10 Hz / AC: 3 Hz
Status indicator	Green LED	Green LED	Green LED	Green LED	Green LED
Protective circuit	Reverse polarity protection, Integrated free-wheel diode	Reverse polarity protection, Integrated free-wheel diode	Reverse polarity protection, Integrated free-wheel diode	Rectifier	Rectifier
<b>Load side</b>					
Switch-on delay	< 55 µs	< 55 µs	< 55 µs	< 6.5 ms	< 6.5 ms
Switch-off delay	< 1 ms	< 1.2 ms	< 1.2 ms	< 10 ms	< 10 ms

Ordering data

Screw connection	Type TOS 5VDC 24VDC2A	Type TOS 12VDC 24VDC2A	Type TOS 24VDC 24VDC2A	Type TOS 24VUC 24VDC2A	Type TOS 48VUC 24VDC2A
Order No.	<b>1127140000</b>	<b>1127150000</b>	<b>1127170000</b>	<b>1127180000</b>	<b>1127190000</b>
Tension clamp conn.	Type TOZ 5VDC 24VDC2A	Type TOZ 12VDC 24VDC2A	Type TOZ 24VDC 24VDC2A	Type TOZ 24VUC 24VDC2A	Type TOZ 48VUC 24VDC2A
Order No.	<b>1127270000</b>	<b>1127280000</b>	<b>1127290000</b>	<b>1127300000</b>	<b>1127310000</b>
<b>Note</b>	Spare solid-state relay Type: SSS 5 V/24 V 2 A DC Orderno.: 4064310000	Spare solid-state relay Type: SSS 5 V/24 V 2 A DC Order no.: 4064310000	Spare solid-state relay Type: SSS 24 V/24 V 2 A DC Orderno.: 4061190000	Spare solid-state relay Type: SSS 24 V/24 V 2 A DC Orderno.: 4061190000	Spare solid-state relay Type: SSS 24 V/24 V 2 A DC Orderno.: 4061190000

Ordering data

	60 V UC	120 V UC	230 V UC	120 V AC RC	230 V AC RC
<b>Control side</b>					
Rated control voltage	60 V UC ±10 %	120 V UC ±10 %	230 V UC ±10%	120 V AC ±10 %	230 V AC ±10 %
Nominal control current	5 mA AC (±20 %), 3 mA DC (±20 %)	5 mA AC (±30 %), 3 mA DC (±30 %)	3.5 mA AC (±30 %), 3 mA DC (±30 %)	7 mA AC (±20 %)	9 mA AC
Power rating	< 300 mW	0.48 VA	0.8 VA / 660 mW	0.84 VA	2.1 VA
Cut-in / dropout voltage	37 V / 20 V AC 35 V / 26 V DC	82 V / 65 V AC 86 V / 74 V DC	159 V / 99 V AC 145 V / 128 V DC	79 V / 60 V AC	129 V / 90 V AC
Input frequency	DC: 10 Hz / AC: 3 Hz	3 Hz	3 Hz	3 Hz	3 Hz
Status indicator	Green LED	Green LED	Green LED	Green LED	Green LED
Protective circuit	Rectifier	Rectifier	Rectifier	RC element	RC element
<b>Load side</b>					
Switch-on delay	< 6.5 ms	< 6.5 ms	< 7 ms	< 6.5 ms	< 7 ms
Switch-off delay	< 10 ms	< 10 ms	< 10 ms	< 10 ms	< 10 ms

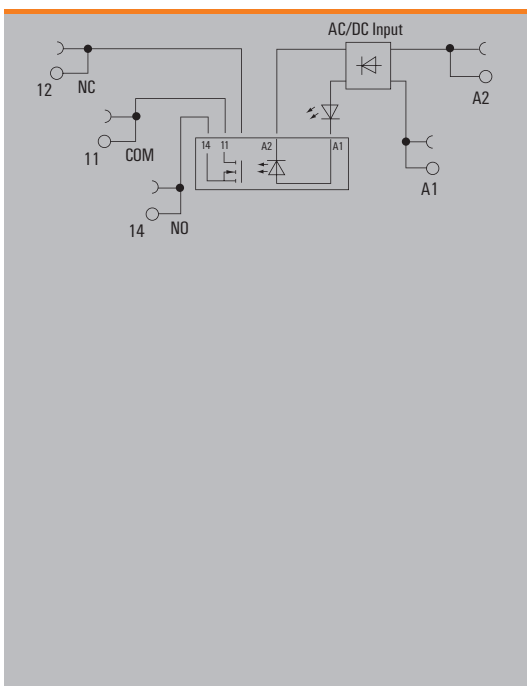
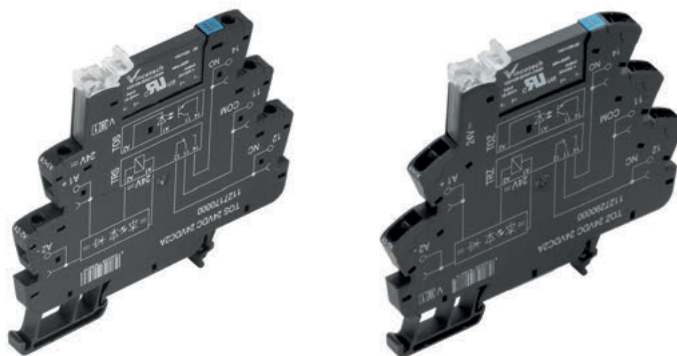
Ordering data

Screw connection	Type TOS 60VUC 24VDC2A	Type TOS 120VUC 24VDC2A	Type TOS 230VUC 24VDC2A	Type TOS 120VAC RC 24VDC2A	Type TOS 230VAC RC 24VDC2A
Order No.	<b>1127200000</b>	<b>1127210000</b>	<b>1127220000</b>	<b>1127230000</b>	<b>1127240000</b>
Tension clamp conn.	Type TOZ 60VUC 24VDC2A	Type TOZ 120VUC 24VDC2A	Type TOZ 230VUC 24VDC2A	Type TOZ 120VAC RC 24VDC2A	Type TOZ 230VAC RC 24VDC2A
Order No.	<b>1127320000</b>	<b>1127330000</b>	<b>1127340000</b>	<b>1127350000</b>	<b>1127370000</b>
<b>Note</b>	Spare solid-state relay Type: SSS 60 V/24 V 2 A DC Orderno.: 4061200000	Spare solid-state relay Type: SSS 60 V/24 V 2 A DC Orderno.: 4061200000	Spare solid-state relay Type: SSS 60 V/24 V 2 A DC Orderno.: 4061200000	Spare solid-state relay Type: SSS 60 V/24 V 2 A DC Orderno.: 4061200000	Spare solid-state relay Type: SSS 60 V/24 V 2 A DC Orderno.: 4061200000

**Solid-state relay, 3...33 V DC / 2 A**

**Output versions, multi-voltage input**

- Space saving, just 6.4 mm modular width
- 5 cross-connection levels
- Screw and tension clamp connection
- Multi-voltage input: 24 to 230 V UC in one module



**Technical data**

Load side	
Rated switching voltage	3...33 V DC
Continuous current	2 A
Inrush current	
Solid-state type	MOS-FET
Voltage drop at max. load	≤ 120 mV
Leakage current	< 10 µA
Protective circuit, load side	Integrated free-wheel diode
Short-circuit-proof / Protective circuit, load side	No / Integrated free-wheel diode
General data	
Ambient temperature (operational)	-20 °C...60 °C
Storage temperature	-40 °C...70 °C
Humidity	5-95% rel. humidity, T <sub>v</sub> = 40°C, no condensation
Approvals	CE, cULus, EAC, GL
Insulation coordination (EN 50178)	
Rated voltage	300 V
Impulse withstand voltage	6 kV (1.2/50 µs)
Dielectric strength for control side - load side	2.5 kV <sub>eff</sub>
Dielectric strength to mounting rail	4 kV <sub>eff</sub> / 1 min.
Clearance and creepage distances for control side - load side	≥ 5.5 mm
Overvoltage category	III
Pollution degree	2
Dimensions	
Clamping range (nominal / min. / max.)	mm <sup>2</sup> 1.5 / 0.14 / 2.5
Depth x width x height	mm 88 / 6.4 / 90
Note	
Accessories and dimensional drawings: refer to the TERMSERIES Accessories page.	

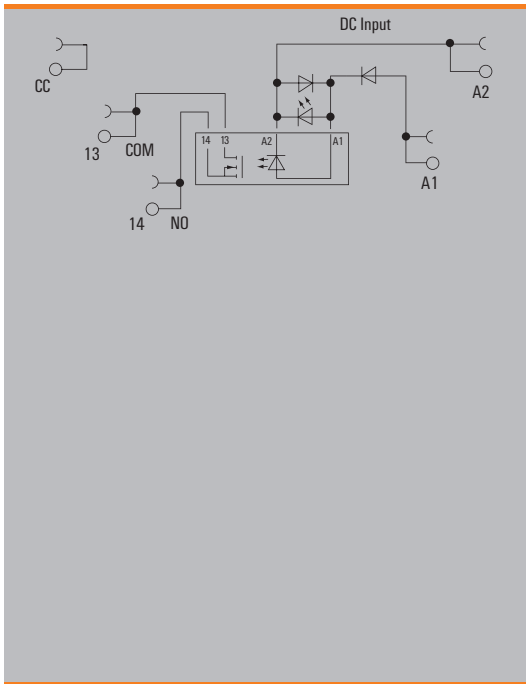
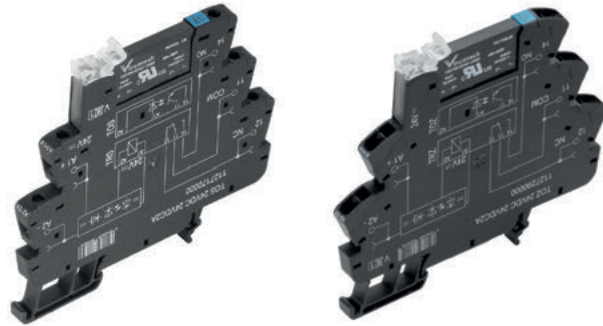
**Ordering data**

Control side	
Rated control voltage	24...230 V UC ±10 %
Nominal control current	22 mA @ 24 V DC, 4 mA @ 230 V AC
Power rating	530 mW @ 24 V DC, 930 mVA @ 230 V AC
Cut-in / dropout voltage	11.5 V / 6 V AC 11.5 V / 5 V DC
Input frequency	3 Hz
Status indicator	Green LED
Protective circuit	Rectifier
Load side	
Switch-on delay	< 20 ms
Switch-off delay	< 100 ms

Ordering data	
Screw connection	Type TOS 24-230VUC 24VDC2A
Order No.	1127250000
Tension clamp conn.	Type TOZ 24-230VUC 24VDC2A
Order No.	1127380000
Note	
Spare solid-state relay Type: SSS 24 V/24 V 2 A DC Orderno.: 4061190000	

**Solid-state relay, 3...33 V DC / 2 A actuator versions**

- Space-saving, only 6.4 mm wide
  - AgNi contact
  - Screw and tension clamp connection
  - 24 V DC actuator version:
- Bridgeable, potential-free connection in the output (CC)



**Technical data**

Load side	
Rated switching voltage	3...33 V DC
Continuous current	2 A
Inrush current	
Solid-state type	MOS-FET
Voltage drop at max. load	≤ 120 mV
Leakage current	< 10 µA
Protective circuit, load side	Integrated free-wheel diode
Short-circuit-proof / Protective circuit, load side	No / Integrated free-wheel diode
General data	
Ambient temperature (operational)	-20 °C...60 °C
Storage temperature	-40 °C...70 °C
Humidity	5-95% rel. humidity, T <sub>v</sub> = 40°C, no condensation
Approvals	CE, EAC
Insulation coordination (EN 50178)	
Rated voltage	300 V
Impulse withstand voltage	6 kV (1.2/50 µs)
Dielectric strength for control side - load side	2.5 kV <sub>eff</sub>
Dielectric strength to mounting rail	4 kV <sub>eff</sub> / 1 min.
Clearance and creepage distances for control side - load side	≥ 5.5 mm
Overvoltage category	III
Pollution degree	2
Dimensions	
Clamping range (nominal / min. / max.)	mm <sup>2</sup> 1.5 / 0.14 / 2.5
Depth x width x height	mm 88 / 6.4 / 90
<b>Note</b>	Accessories and dimensional drawings: refer to the TERMSERIES Accessories page.

**Ordering data**

Control side	
Rated control voltage	24 V DC ±20 %
Nominal control current	10 mA DC ±20 %
Power rating	240 mW
Cut-in / dropout voltage	17 V / 10 V DC
Input frequency	300 Hz
Status indicator	Green LED
Protective circuit	Reverse polarity protection, Integrated free-wheel diode
Load side	
Switch-on delay	< 55 µs
Switch-off delay	< 1.2 ms

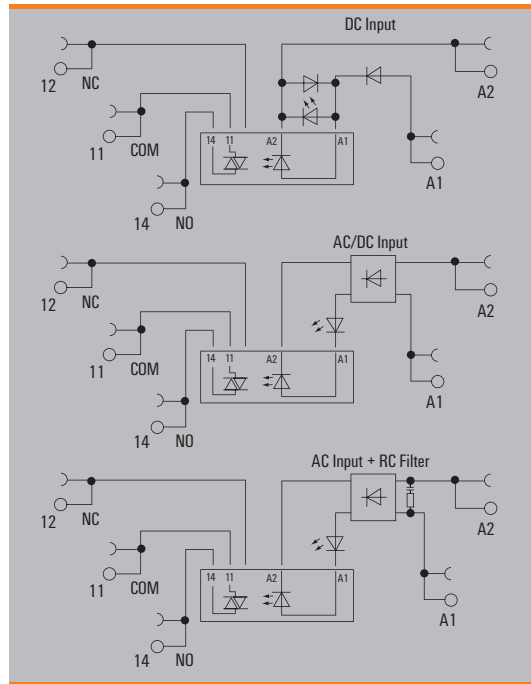
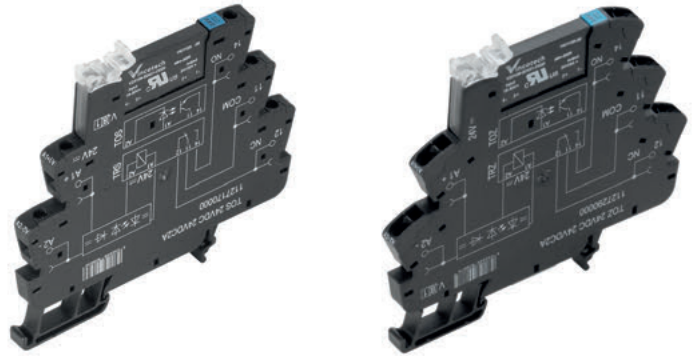
Ordering data	
Screw connection	Type TOS 24VDC ACT
Order No.	1391680000
Tension clamp conn.	Type TOZ 24VDC ACT
Order No.	1391690000
Note	



Solid-state relay, 24...230 V AC / 1 A

Output versions

- Space saving, just 6.4 mm modular width
- 5 cross-connection levels
- Screw and tension clamp connection



Technical data

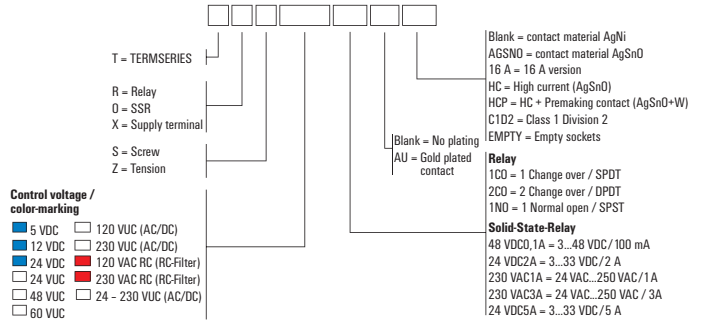
Load side	
Rated switching voltage	24...240 V AC
Continuous current	1 A
Inrush current	
Solid-state type	Triac (zero-cross switch)
Voltage drop at max. load	≤ 1.6 V
Leakage current	< 10 µA
Protective circuit, load side	No
Short-circuit-proof / Protective circuit, load side	No / No
General data	
Ambient temperature (operational)	-20 °C...60 °C
Storage temperature	-40 °C...70 °C
Humidity	5-95% rel. humidity, T <sub>v</sub> = 40°C, no condensation
Approvals	CE, cULus, EAC, GL
Insulation coordination (EN 50178)	
Rated voltage	300 V
Impulse withstand voltage	6 kV (1.2/50 µs)
Dielectric strength for control side - load side	2.5 kV <sub>eff</sub>
Dielectric strength to mounting rail	4 kV <sub>eff</sub> / 1 min.
Clearance and creepage distances for control side - load side	≥ 5.5 mm
Overvoltage category	III
Pollution degree	2
Dimensions	
Clamping range (nominal / min. / max.)	mm <sup>2</sup> 1.5 / 0.14 / 2.5
Depth x width x height	mm 88 / 6.4 / 90
Note	
Accessories and dimensional drawings: refer to the TERMSERIES Accessories page.	

Dimensions	Screw connection	Tension clamp conn.
Clamping range (nominal / min. / max.)	mm <sup>2</sup> 1.5 / 0.14 / 2.5	1.5 / 0.14 / 2.5
Depth x width x height	mm 88 / 6.4 / 90	88 / 6.4 / 90

**Note** Accessories and dimensional drawings: refer to the TERMSERIES Accessories page.

Solid-state relay, 24...230 V AC / 1 A

Output versions



Ordering data	5 V DC	12 V DC	24 V DC	24 V UC	48 V UC
<b>Control side</b>					
Rated control voltage	5 V DC ±20 %	12 V DC ±20 %	24 V DC ±20 %	24 V UC ±10 %	48 V UC ±10 %
Nominal control current	15 mA DC (±20 %)	9.6 mA DC (±20 %)	10 mA DC ±20 %	10 mA AC ±20 %, 6 mA DC (±20 %)	6 mA AC (±20 %), 4 mA DC (±20 %)
Power rating	75 mW	112 mW	< 280 mW	154 mW	290 mVA / 192 mW
Cut-in / dropout voltage	3.4 V / 1.5 V DC	4.7 V / 4.6 V DC	17 V / 10 V DC	18 V / 12 V AC 14 V / 13 V DC	36 V / 19 V AC 36 V / 19 V DC
Input frequency	3 Hz	3 Hz	3 Hz	3 Hz	3 Hz
Status indicator	Green LED	Green LED	Green LED	Green LED	Green LED
Protective circuit	Reverse polarity protection, Integrated free-wheel diode	Reverse polarity protection, Integrated free-wheel diode	Reverse polarity protection, Integrated free-wheel diode	Rectifier	Rectifier
<b>Load side</b>					
Switch-on delay	< 12 ms	< 12 ms	< 12 ms	< 11 ms	< 11 ms
Switch-off delay	< 12 ms	< 12 ms	< 12 ms	< 11 ms	< 11 ms

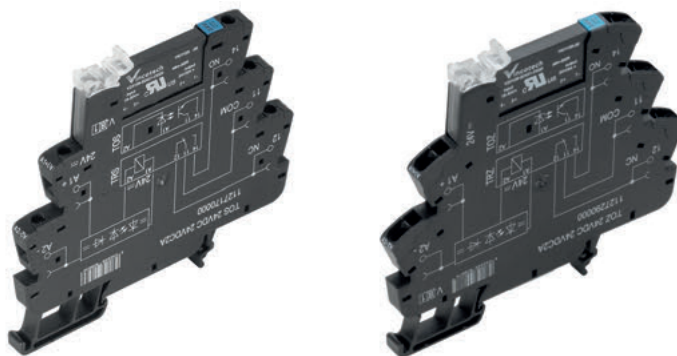
Ordering data	5 V DC	12 V DC	24 V DC	24 V UC	48 V UC
Screw connection Type	TOS 5VDC 230VAC1A	TOS 12VDC 230VAC1A	TOS 24VDC 230VAC1A	TOS 24VUC 230VAC1A	TOS 48VUC 230VAC1A
Order No.	<b>1127390000</b>	<b>1127400000</b>	<b>1127410000</b>	<b>1127420000</b>	<b>1127430000</b>
Tension clamp conn. Type	TOZ 5VDC 230VAC1A	TOZ 12VDC 230VAC1A	TOZ 24VDC 230VAC1A	TOZ 24VUC 230VAC1A	TOZ 48VUC 230VAC1A
Order No.	<b>1127510000</b>	<b>1127520000</b>	<b>1127530000</b>	<b>1127540000</b>	<b>1127550000</b>
<b>Note</b>	Spare solid-state relay Type: SSS 5 V/230 V 1 A AC Orderno.: 1132260000	Spare solid-state relay Type: SSS 5 V/230 V 1 A AC Orderno.: 1132260000	Spare solid-state relay Type: SSS 24 V/230 V 1 A AC Orderno.: 4061210000	Spare solid-state relay Type: SSS 24 V/230 V 1 A AC Orderno.: 4061210000	Spare solid-state relay Type: SSS 24 V/230 V 1 A AC Orderno.: 4061210000

Ordering data	60 V UC	120 V UC	230 V UC	120 V AC RC	230 V AC RC
<b>Control side</b>					
Rated control voltage	60 V UC ±10 %	120 V UC ±10 %	230 V UC +5 % / -10 %	120 V AC ±10 %	230 V AC +5 % / -10 %
Nominal control current	5 mA AC (±20 %), 3 mA DC (±20 %)	5 mA AC (±30 %), 3 mA DC (±30 %)	3.5 mA AC (±30 %), 3 mA DC (±30 %)	7 mA AC (±20 %)	9 mA AC
Power rating	< 300 mW	0.48 VA	0.8 VA / 660 mW	0.84 VA	2.1 VA
Cut-in / dropout voltage	35 V / 20 V AC 35 V / 26 V DC	82 V / 65 V AC 86 V / 74 V DC	159 V / 99 V AC 145 V / 128 V DC	79 V / 60 V AC	142 V / 90 V AC
Input frequency	3 Hz	3 Hz	3 Hz	3 Hz	3 Hz
Status indicator	Green LED	Green LED	Green LED	Green LED	Green LED
Protective circuit	Rectifier	Rectifier	Rectifier	RC element	RC element
<b>Load side</b>					
Switch-on delay	< 11 ms	< 11 ms	< 20 ms	< 11 ms	< 20 ms
Switch-off delay	< 11 ms	< 11 ms	< 20 ms	< 11 ms	< 20 ms

Ordering data	60 V UC	120 V UC	230 V UC	120 V AC RC	230 V AC RC
Screw connection Type	TOS 60VUC 230VAC1A	TOS 120VUC 230VAC1A	TOS 230VUC 230VAC1A	TOS 120VAC RC 230VAC1A	TOS 230VAC RC 230VAC1A
Order No.	<b>1127440000</b>	<b>1127450000</b>	<b>1127470000</b>	<b>1127480000</b>	<b>1127490000</b>
Tension clamp conn. Type	TOZ 60VUC 230VAC1A	TOZ 120VUC 230VAC1A	TOZ 230VUC 230VAC1A	TOZ 120VAC RC 230VAC1A	TOZ 230VAC RC 230VAC1A
Order No.	<b>1127570000</b>	<b>1127580000</b>	<b>1127590000</b>	<b>1127600000</b>	<b>1127610000</b>
<b>Note</b>	Spare solid-state relay Type: SSS 60 V/230 V 1 A AC Orderno.: 4061220000	Spare solid-state relay Type: SSS 60 V/230 V 1 A AC Orderno.: 4061220000	Spare solid-state relay Type: SSS 60 V/230 V 1 A AC Orderno.: 4061220000	Spare solid-state relay Type: SSS 60 V/230 V 1 A AC Orderno.: 4061220000	Spare solid-state relay Type: SSS 60 V/230 V 1 A AC Orderno.: 4061220000

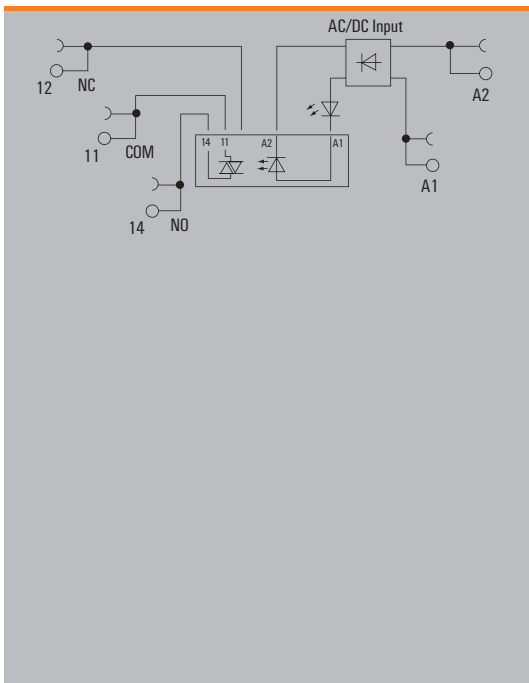
**Solid-state relay, 24...230 V AC / 1 A output versions, multi-voltage input**

- Space saving, just 6.4 mm modular width
- 5 cross-connection levels
- Screw and tension clamp connection
- Multi-voltage input: 24 to 230 V UC in one module



Relay modules and solid-state relays  
6 mm width

**A**



**Technical data**

Load side					
Rated switching voltage	24...240 V AC				
Continuous current	1 A				
Inrush current					
Solid-state type	Triac (zero-cross switch)				
Voltage drop at max. load	≤ 1 V				
Leakage current	< 10 µA				
Protective circuit, load side	No				
Short-circuit-proof / Protective circuit, load side	No / No				
General data					
Ambient temperature (operational)	-20 °C...60 °C				
Storage temperature	-40 °C...70 °C				
Humidity	5-95% rel. humidity, T <sub>v</sub> = 40°C, no condensation				
Approvals	CE, cULus, EAC, GL				
Insulation coordination (EN 50178)					
Rated voltage	300 V				
Impulse withstand voltage	6 kV (1.2/50 µs)				
Dielectric strength for control side - load side	2.5 kV <sub>eff</sub>				
Dielectric strength to mounting rail	4 kV <sub>eff</sub> / 1 min.				
Clearance and creepage distances for control side - load side	≥ 5.5 mm				
Overvoltage category	III				
Pollution degree	2				
Dimensions		Screw connection		Tension clamp conn.	
Clamping range (nominal / min. / max.)		mm <sup>2</sup> 1.5 / 0.14 / 2.5		1.5 / 0.14 / 2.5	
Depth x width x height		mm 88 / 6.4 / 90		88 / 6.4 / 90	
<b>Note</b>		Accessories and dimensional drawings: refer to the TERMSERIES Accessories page.			

**Ordering data**

Control side	
Rated control voltage	24...230 V UC ±10 %
Nominal control current	22 mA @ 24 V DC, 4 mA @ 230 V AC
Power rating	530 mW @ 24 V DC, 930 mVA @ 230 V AC
Cut-in / dropout voltage	11.5 V / 6 V AC 11.5 V / 5 V DC
Input frequency	3 Hz
Status indicator	Green LED
Protective circuit	Rectifier

**24 V - 230 V UC**

Load side	
Switch-on delay	< 20 ms
Switch-off delay	< 100 ms

Ordering data	
Screw connection	Type TOS 24-230VUC 230VAC1A
Order No.	<b>1127500000</b>
Tension clamp conn.	Type TOZ 24-230VUC 230VAC1A
Order No.	<b>1127620000</b>

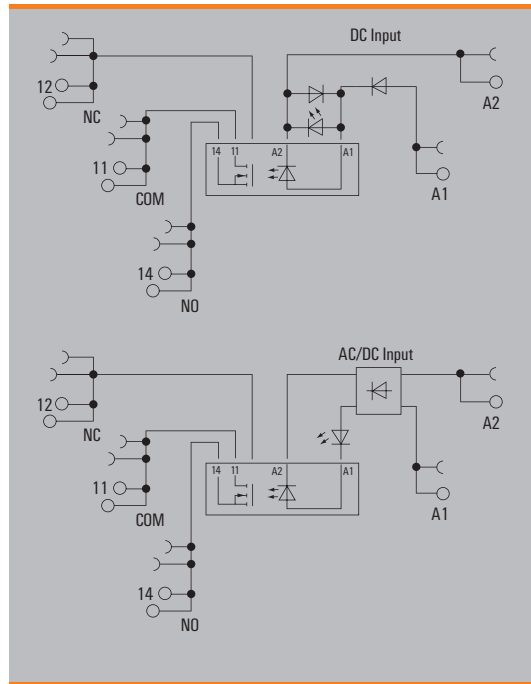
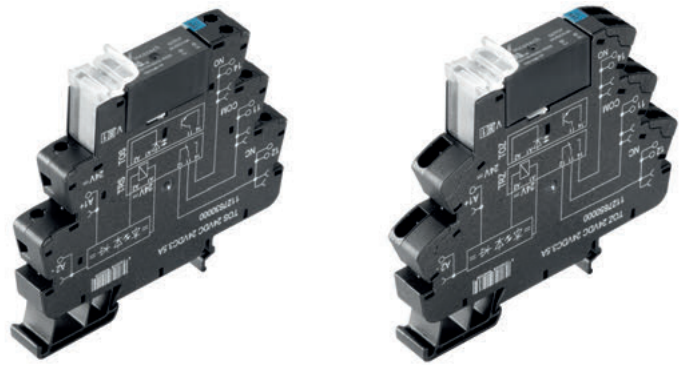
Note	
Spare solid-state relay Type: SSS 24 V/230 V 1 A AC Orderno.: 4061210000	



**Solid-state relay, 0...33 V DC / 3.5 A**

**Output versions**

- Space saving, just 12.8 mm modular width
- 5 cross-connection levels
- Screw and tension clamp connection



**Technical data**

Load side	
Rated switching voltage	3...33 V DC
Continuous current	3.5 A
Inrush current	
Solid-state type	MOS-FET
Voltage drop at max. load	≤ 0.3 V
Leakage current	< 10 µA
Protective circuit, load side	Integrated free-wheel diode
Short-circuit-proof / Protective circuit, load side	No / Integrated free-wheel diode
General data	
Ambient temperature (operational)	-20 °C...60 °C
Storage temperature	-40 °C...85 °C
Humidity	5-95% rel. humidity, T <sub>v</sub> = 40°C, no condensation
Approvals	CE, cULus, EAC, GL
Insulation coordination (EN 50178)	
Rated voltage	300 V
Impulse withstand voltage	6 kV (1.2/50 µs)
Dielectric strength for control side - load side	2.5 kV <sub>eff</sub>
Dielectric strength to mounting rail	4 kV <sub>eff</sub> / 1 min.
Clearance and creepage distances for control side - load side	≥ 5.5 mm
Overvoltage category	III
Pollution degree	2
Dimensions	
Clamping range (nominal / min. / max.)	mm <sup>2</sup> 1.5 / 0.14 / 2.5
Depth x width x height	mm 88 / 12.8 / 90
Screw connection	
Clamping range (nominal / min. / max.)	mm <sup>2</sup> 1.5 / 0.14 / 2.5
Depth x width x height	mm 88 / 12.8 / 90
Note	
Accessories and dimensional drawings: refer to the TERMSERIES Accessories page.	

**Ordering data**

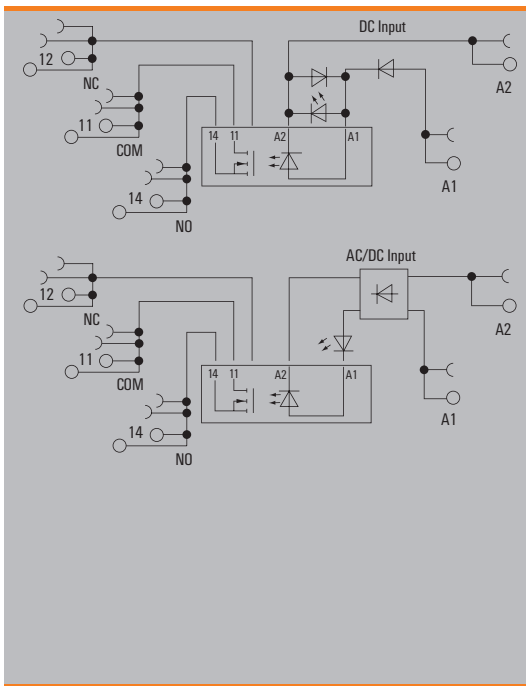
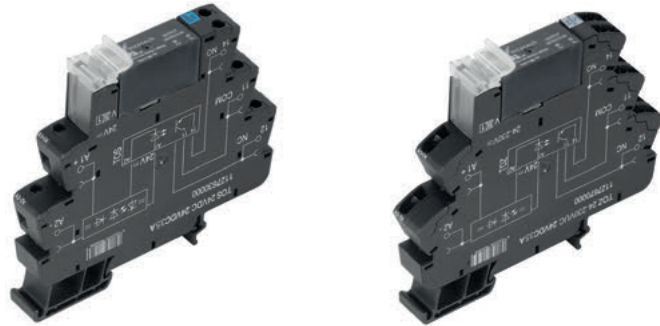
	24 V DC	24 V - 230 V UC
<b>Control side</b>		
Rated control voltage	24 V DC ±20 %	24...230 V UC ±10 %
Nominal control current	10 mA DC ±20 %	28 mA @ 24 V UC, 4 mA @ 230 V UC
Power rating	240 mW	672 mW @ 24 V UC, 920 mW @ 230 V UC
Cut-in / dropout voltage	15 V / 5 V DC	12 V / 6 V AC 12 V / 5 V DC
Input frequency	300 Hz	3 Hz
Status indicator	Green LED	Green LED
Protective circuit	Reverse polarity protection, Integrated free-wheel diode	Rectifier
<b>Load side</b>		
Switch-on delay	< 55 µs	≤ 10 ms
Switch-off delay	< 600 µs	< 100 ms

Ordering data		24 V DC	24 V - 230 V UC
Screw connection	Type	TOS 24VDC 24VDC3,5A	TOS 24-230VUC 24VDC3,5A
	Order No.	<b>1127630000</b>	<b>1127640000</b>
Tension clamp conn.	Type	TOZ 24VDC 24VDC3,5A	TOZ 24-230VUC 24VDC3,5A
	Order No.	<b>1127650000</b>	<b>1127670000</b>
<b>Note</b>		Spare solid-state relay Type: SSR 10-32 V DC/0-35 V DC 5 A Orderno.: 1132310000	Spare solid-state relay Type: SSR 10-32 V DC/0-35 V DC 5 A Orderno.: 1132310000

**Solid-state relay, 0...33 VDC / 5 A**

**Output versions**

- Space-saving, 12.8 mm wide
- 5 A DC output current
- Internal cross-connection of the output terminals
- Screw and tension clamp connection
- Multi-voltage input: 24...230 V UC in one module



**Technical data**

Load side	
Rated switching voltage	3...33 V DC
Continuous current	5 A
Inrush current	
Solid-state type	MOS-FET
Voltage drop at max. load	≤ 0.3 V
Leakage current	< 10 µA
Protective circuit, load side	Integrated free-wheel diode
Short-circuit-proof / Protective circuit, load side	/ Integrated free-wheel diode
General data	
Ambient temperature (operational)	-20 °C...60 °C
Storage temperature	-40 °C...70 °C
Humidity	5-95% rel. humidity, T <sub>v</sub> = 40°C, no condensation
Approvals	CE
Insulation coordination (EN 50178)	
Rated voltage	300 V
Impulse withstand voltage	6 kV (1.2/50 µs)
Dielectric strength for control side - load side	2.5 kV <sub>eff</sub>
Dielectric strength to mounting rail	4 kV <sub>eff</sub> / 1 min.
Clearance and creepage distances for control side - load side	≥ 5.5 mm
Overvoltage category	III
Pollution degree	2
Dimensions	
Clamping range (nominal / min. / max.)	/ 0.14 / 2.5 / 0.14 / 2.5
Depth x width x height	mm 88 / 12.8 / 90 88 / 12.8 / 90
Note	

**Ordering data**

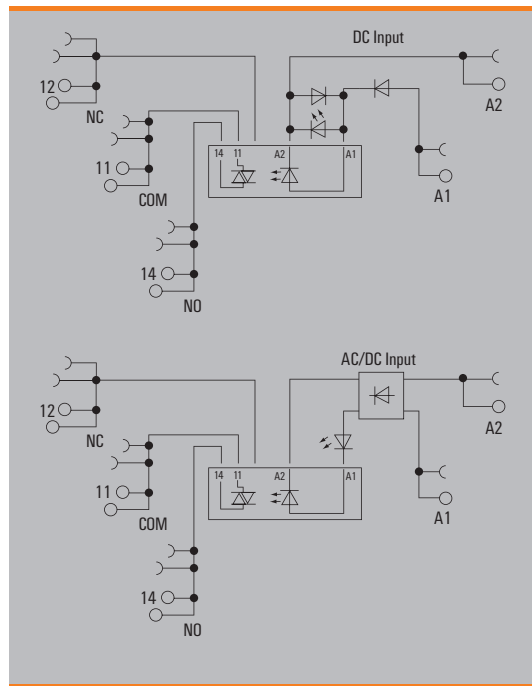
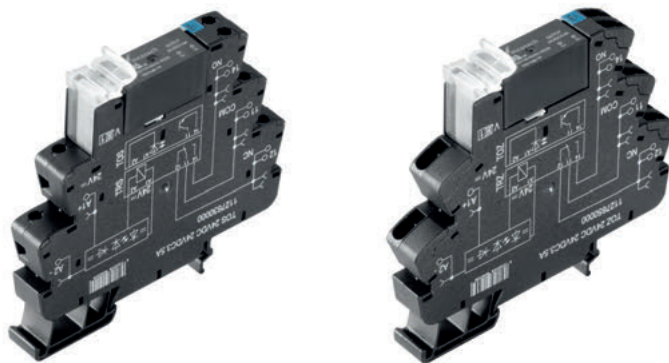
	24 V DC	24 V - 230 V UC
<b>Control side</b>		
Rated control voltage	24 V DC ±20 %	24...230 V UC ±10 %
Nominal control current	10 mA DC ±20 %	28 mA @ 24 V UC, 4 mA @ 230 V UC
Power rating	240 mW	672 mW @ 24 V UC, 920 mW @ 230 V UC
Cut-in / dropout voltage	15 V / 5 V DC	12 V / 6 V AC 12 V / 5 V DC
Input frequency	300 Hz	3 Hz
Status indicator	Green LED	Green LED
Protective circuit	Reverse polarity protection, Integrated free-wheel diode	Rectifier
<b>Load side</b>		
Switch-on delay	< 55 µs	≤ 10 ms
Switch-off delay	< 600 µs	< 100 ms

Ordering data		24 V DC	24 V - 230 V UC
Screw connection	Type	TOS 24VDC 24VDC5A	TOS 24-230VUC 24VDC5A
	Order No.	<b>1990960000</b>	<b>1990970000</b>
Tension clamp conn.	Type	TOZ 24VDC 24VDC5A	TOZ 24-230VUC 24VDC5A
	Order No.	<b>1990980000</b>	<b>1990990000</b>
<b>Note</b>			

**Solid-state relay, 12...275 V AC / 1 A**

**Output versions**

- Space saving, just 12.8 mm modular width
- 5 cross-connection levels
- Screw and tension clamp connection



**Technical data**

<b>Load side</b>	
Rated switching voltage	12...275 V AC
Continuous current	1 A
Inrush current	
Solid-state type	Triac (zero-cross switch)
Voltage drop at max. load	≤ 1.1 V
Leakage current	< 10 µA
Protective circuit, load side	No
Short-circuit-proof / Protective circuit, load side	No / No
<b>General data</b>	
Ambient temperature (operational)	-20 °C...60 °C
Storage temperature	-40 °C...70 °C
Humidity	5-95% rel. humidity, T <sub>v</sub> = 40°C, no condensation
Approvals	CE, EAC, GL
<b>Insulation coordination (EN 50178)</b>	
Rated voltage	300 V
Impulse withstand voltage	6 kV (1.2/50 µs)
Dielectric strength for control side - load side	2.5 kV <sub>eff</sub>
Dielectric strength to mounting rail	4 kV <sub>eff</sub> / 1 min.
Clearance and creepage distances for control side - load side	≥ 5.5 mm
Overvoltage category	III
Pollution degree	2
<b>Dimensions</b>	
Clamping range (nominal / min. / max.)	mm <sup>2</sup> 1.5 / 0.14 / 2.5
Depth x width x height	mm 88 / 12.8 / 90
<b>Note</b>	
Accessories and dimensional drawings: refer to the TERMSERIES Accessories page.	

**Ordering data**

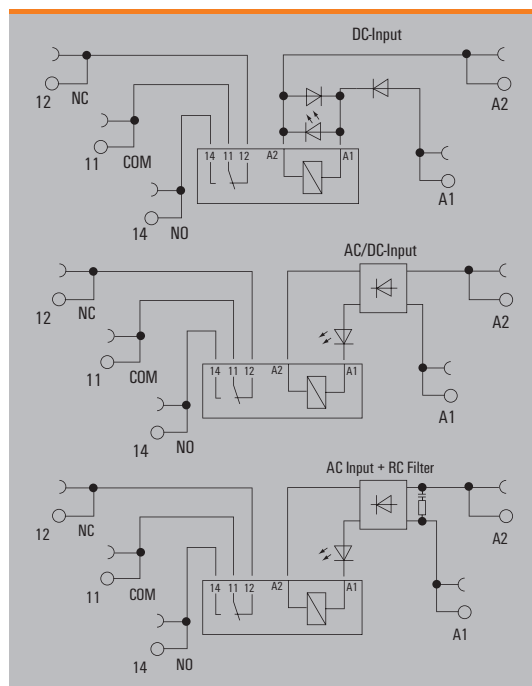
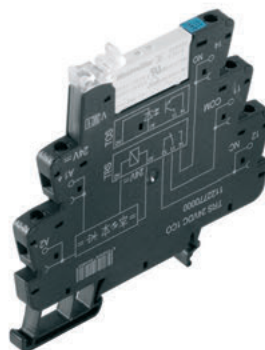
	24 V DC	24 V - 230 V UC
<b>Control side</b>		
Rated control voltage	24 V DC ±20 %	24...230 V UC ±10 %
Nominal control current	10 mA DC ±20 %	28 mA @ 24 V UC, 4 mA @ 230 V UC
Power rating	240 mW	672 mW @ 24 V UC, 920 mW @ 230 V UC
Cut-in / dropout voltage	15 V / 5 V DC	12 V / 6 V AC 12 V / 5 V DC
Input frequency	3 Hz	3 Hz
Status indicator	Green LED	Green LED
Protective circuit	Reverse polarity protection, Integrated free-wheel diode	Rectifier
<b>Load side</b>		
Switch-on delay	< 1 ms	≤ 12 ms
Switch-off delay	< 4 ms	< 125 ms
<b>Ordering data</b>		
Screw connection Type	TOS 24VDC 230VAC1A	TOS 24-230VUC 230VAC1A
Order No.	<b>1127680000</b>	<b>1127690000</b>
Tension clamp conn. Type	TOZ 24VDC 230VAC1A	TOZ 24-230VUC 230VAC1A
Order No.	<b>1127700000</b>	<b>1127710000</b>
<b>Note</b>		
	Spare solid-state relay Type: SSR 10 - 32 VDC/ 12 - 275 VAC 3A Orderno.: 1132290000	Spare solid-state relay Type: SSR 10 - 32 VDC/ 12 - 275 VAC 3A Orderno.: 1132290000





1 CO contact, cl. 1, div. 2  
AC / DC / UC coil

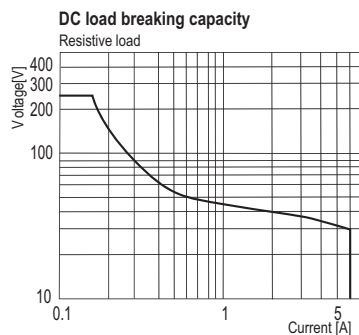
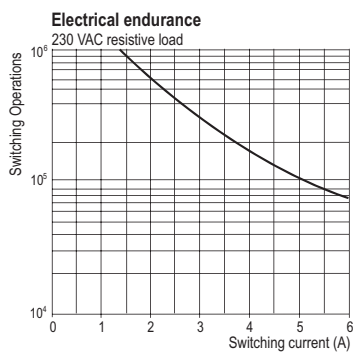
- Space-saving, 6.4 mm wide
- AgNi contact



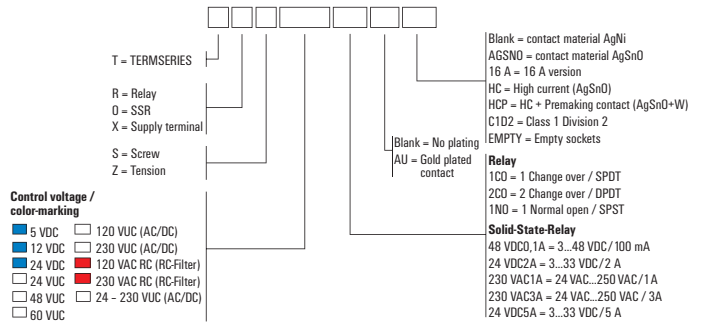
Technical data

Output	
Rated switching voltage / Continuous current	250 V AC / 6 A
Max. switching voltage, AC	250 V
Inrush current	20 A / 20 ms
Min. switching power	100 mA / 5 V, 12 V / 10 mA, 24 V / 1 mA
DC / AC Switching capacity (resistive), max.	144 W @ 24 V / 1500 VA
Contact material	AgNi
Mechanical service life	5 x 10 <sup>6</sup> switching cycles
Max. switching frequency at rated load	0.1 Hz
Rated data	
Ambient temperature (operational)	-40 °C...60 °C
Storage temperature	-40 °C...85 °C
Humidity	5-95% rel. humidity, T <sub>v</sub> = 40°C, no condensation
Approvals	CE, cULusEX
Insulation coordination (EN 50178)	
Rated voltage	300 V
Impulse withstand voltage	6 kV (1.2/50 µs)
Dielectric strength input - output	4 kV <sub>eff</sub> / 1 min.
Dielectric strength, contact / contact	
Dielectric strength to mounting rail	4 kV <sub>eff</sub> / 1 min.
Creepage and clearance distance input - output	≥ 5.5 mm
Overtoltage category	III
Pollution degree	2
Dimensions	
Clamping range (nominal / min. / max.)	mm <sup>2</sup> 1.5 / 0.14 / 2.5
Depth x width x height	mm 88 / 6.4 / 90
Screw connection	
Note	

Applications



1 CO contact, cl. 1, div. 2  
AC / DC / UC coil

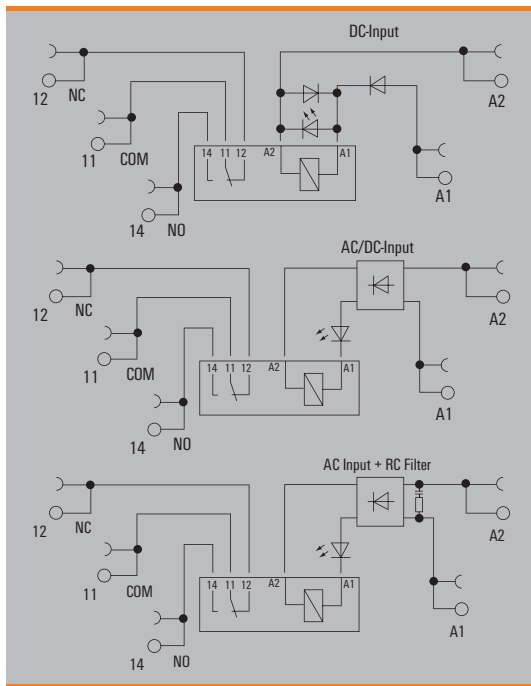
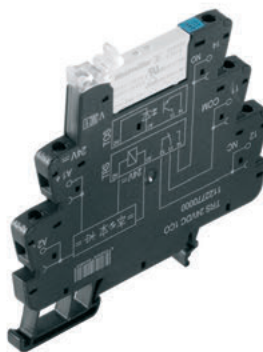


Ordering data	12 V DC	24 V DC	24 V UC	120 V AC RC	230 V AC RC
<b>Input</b>					
Rated control voltage	12 V DC ±20 %	24 V DC ±20 %	24 V UC ±10 %	120 V AC ±10 %	230 V AC ±10 %
Rated current AC / DC	/ 18 mA	/ 10 mA	11.7 mA / 6.4 mA	7 mA /	10.1 mA /
Power rating	210 mW	240 mW	270 mVA / 154 mW	0.84 VA	2.3 VA
Pull-in/drop-out voltage, typ.	8 V / 2 V DC	16 V / 4 V DC	16.5 V / 5.5 V AC 16.5 V / 5.5 V DC	79 V / 60 V AC	145 V / 85 V AC
Pull-in/drop-out current, typ.	9 mA / 3 mA DC	7 mA / 2 mA DC	4 mA / 1.2 mA AC 4 mA / 1.2 mA DC	4 mA / 2.5 mA AC	9.13 mA / 4.78 mA AC
Status indicator	Green LED	Green LED	Green LED	Green LED	Green LED
Protective circuit	Integrated free-wheel diode, Reverse polarity protection	Integrated free-wheel diode, Reverse polarity protection	Rectifier	Rectifier	Rectifier
<b>Output</b>					
Switch-on delay	< 7 ms	< 6 ms	< 4 ms	< 5.3 ms	< 22 ms
Switch-off delay	< 8 ms	< 7 ms	< 1.2 ms	< 4 ms	< 30 ms
<b>Ordering data</b>					
Screw connection	TR 12VDC 1CO C1D2	TR 24VDC 1CO C1D2	TR 24VUC 1CO C1D2	TR 120VACRC 1CO C1D2	TR 230VACRC 1CO C1D2
Type Order No.	<b>1984560000</b>	<b>1984570000</b>	<b>1984580000</b>	<b>1984590000</b>	<b>1984600000</b>
Type Order No.					
<b>Note</b>					

Ordering data	24...230 V UC
<b>Input</b>	
Rated control voltage	24...230 V UC ±10 %
Rated current AC / DC	4 mA @ 230 V AC ±10 %, 28 mA @ 24 V AC ±10 % / 22 mA @ 24 V DC ±10 %
Power rating	530 mW @ 24 V DC, 930 mVA @ 230 V AC
Pull-in/drop-out voltage, typ.	11.5 V / 6 V AC 11.5 V / 5 V DC
Pull-in/drop-out current, typ.	
Status indicator	Green LED
Protective circuit	Rectifier
<b>Output</b>	
Switch-on delay	< 22 ms
Switch-off delay	< 100 ms
<b>Ordering data</b>	
Screw connection	TR 24-230VUC 1CO C1D2
Type Order No.	<b>1984610000</b>
Type Order No.	
<b>Note</b>	

1 CO contact, cl. 1, div. 2  
 With hard gold-plated contacts  
 AC / DC / UC coil

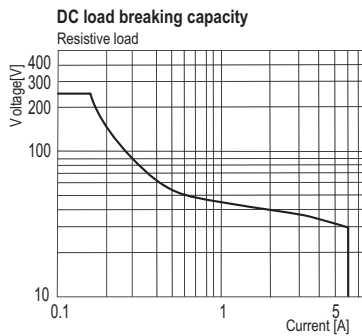
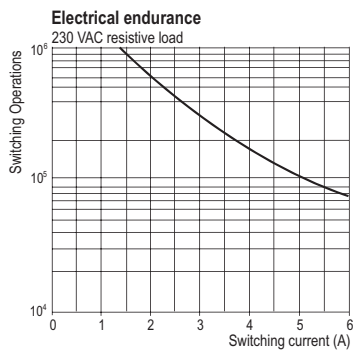
- Space-saving, 6.4 mm wide
- AgNi contact



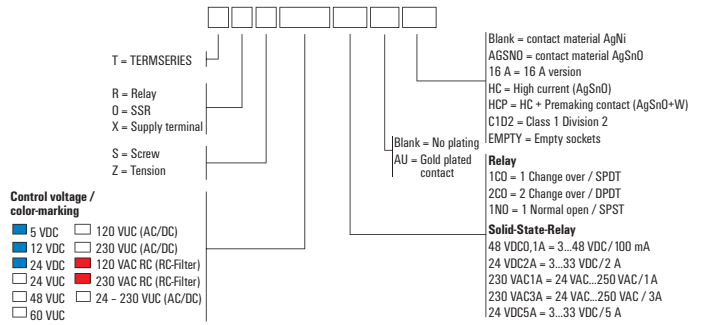
**Technical data**

Output	
Rated switching voltage / Continuous current	250 V AC / 6 A
Max. switching voltage, AC	250 V
Inrush current	20 A / 20 ms
Min. switching power	100 mA / 5 V, 12 V / 10 mA, 24 V / 1 mA
DC / AC Switching capacity (resistive), max.	144 W @ 24 V / 1500 VA
Contact material	AgNi
Mechanical service life	5 x 10 <sup>6</sup> switching cycles
Max. switching frequency at rated load	0.1 Hz
Rated data	
Ambient temperature (operational)	-40 °C...60 °C
Storage temperature	-40 °C...85 °C
Humidity	5-95% rel. humidity, T <sub>v</sub> = 40°C, no condensation
Approvals	CE, cULusEX
Insulation coordination (EN 50178)	
Rated voltage	300 V
Impulse withstand voltage	6 kV (1.2/50 µs)
Dielectric strength input - output	4 kV <sub>eff</sub> / 1 min.
Dielectric strength, contact / contact	
Dielectric strength to mounting rail	4 kV <sub>eff</sub> / 1 min.
Creepage and clearance distance input - output	≥ 5.5 mm
Oversoltage category	III
Pollution degree	2
Dimensions	
Clamping range (nominal / min. / max.)	mm <sup>2</sup> 1.5 / 0.14 / 2.5
Depth x width x height	mm 88 / 6.4 / 90
Screw connection	
<b>Note</b>	

**Applications**



**1 CO contact, cl. 1, div. 2**  
**With hard gold-plated contacts**  
**AC / DC / UC coil**



Ordering data	12 V DC	24 V DC	120 V AC RC	24-230 V UC
<b>Input</b>				
Rated control voltage	12 V DC ±20 %	24 V DC ±20 %	120 V AC ±10 %	24...230 V UC ±10 %
Rated current AC / DC	/ 18 mA	/ 10 mA	7 mA /	4 mA @ 230 V AC ±10 % 28 mA @ 24 V AC ±10 % / 22 mA @ 24 V DC ±10 %
Power rating	210 mW	240 mW	0.84 VA	530 mW @ 24 V DC, 930 mVA @ 230 V AC
Pull-in/drop-out voltage, typ.	8 V / 2 V DC	16 V / 4 V DC	79 V / 60 V AC	11.5 V / 6 V AC 11.5 V / 5 V DC
Pull-in/drop-out current, typ.	9 mA / 3 mA DC	7 mA / 2 mA DC	4 mA / 2.5 mA AC	
Status indicator	Green LED	Green LED	Green LED	Green LED
Protective circuit	Integrated free-wheel diode, Reverse polarity protection	Integrated free-wheel diode, Reverse polarity protection	Rectifier	Rectifier
<b>Output</b>				
Switch-on delay	< 7 ms	< 6 ms	< 5.3 ms	< 22 ms
Switch-off delay	< 8 ms	< 7 ms	< 4 ms	< 100 ms
<b>Ordering data</b>				
Screw connection	TRS 12VDC 1COAU C1D2	TRS 24VDC 1COAU C1D2	TRS 120VACRC 1COAU C1D2	TRS 24-230VUC 1COAUC1D2
Order No.	<b>1984620000</b>	<b>1984630000</b>	<b>1984640000</b>	<b>1984650000</b>
Type				
Order No.				
<b>Note</b>				