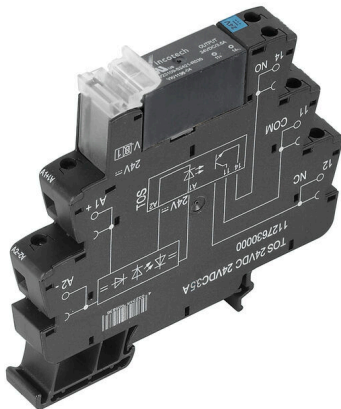


**TOS 24VDC 24VDC5A**

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany

www.weidmueller.com

**Product image**



Similar to illustration

- 1 NO contact (MOS-FET)
- 12.8 mm wide
- 5 A DC output current
- Unique multi-voltage input from 24 to 230 V UC

**General ordering data**

Version	TERMSERIES, Solid-state relay, Rated control voltage: 24 V DC $\pm 20\%$ , Rated switching voltage: 3...33 V DC, Continuous current: 5 A, Screw connection
Order No.	<a href="#">1990960000</a>
Type	TOS 24VDC 24VDC5A
GTIN (EAN)	4050118379280
Qty.	10 items

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## Technical data

### Approvals

Approvals



ROHS Conform

UL File Number Search [UL Website](#)

Certificate no. (cULus) E141197

### Dimensions and weights

Depth	87.8 mm	Depth (inches)	3.4567 inch
Height	89.6 mm	Height (inches)	3.5276 inch
Width	12.8 mm	Width (inches)	0.5039 inch
Net weight	56 g		

### Temperatures

Storage temperature	-40 °C...70 °C	Ambient temperature	-20 °C...60 °C
Operating temperature		Humidity	5-95% relative humidity, Tu = 40°C, without condensation

### Probability of failure

MTTF 1061 a

### Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	7a, 7cl
REACH SVHC	Lead 7439-92-1
SCIP	9e2cbc49-76d9-4611-b8ec-5b4f549a0aa9

### Rated data UL

Ambient temperature (operational), max.	55 °C	Output current derating (ohmic)	5 A @ 50 °C, 4 A @ 55 °C
Connection cross-section AWG, min.	AWG 26	Connection cross-section AWG, max.	AWG 14
Type of conductor	rigid copper conductor, flexible copper conductor	Tightening torque, max.	0.4 Nm
Pollution severity level	2		

### Control side

Rated control voltage	24 V DC $\pm$ 20 %	Nominal control current	10.8 mA DC ( $\pm$ 10 %)
Power rating	260 mW	Status indicator	Green LED
Protective circuit	Free-wheeling diode, Reverse polarity protection	Input frequency	300 Hz
Coil voltage of the replacement relay deviating from the rated control voltage	No	Coil voltage of the replacement relay	24 V DC

### Load side

Rated switching voltage	3...33 V DC	Continuous current	5 A
Rated switching current	5 A	Inrush current	15 A / 10 ms

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## Technical data

Switch-on delay	<55 µs	Switch-off delay	<600 µs
Voltage drop at max. load	≤ 0.3 V	Leakage current	<10 µA
Min. switching current	1 mA	Short-circuit-proof	No
Protective circuit, load side	Free-wheeling diode	Contact type	1 NO contact (MOS-FET)
max. switching frequency (DC control voltage)	300 Hz		

## General data

Mounting rail	TS 35		
Test button available	No		
Colour	black		
UL94 flammability rating component	Component	Housing	
	UL94 flammability rating	V-0	
	Component	Retaining clip	
	UL94 flammability rating	V-0	

## Insulation coordination

Rated voltage	300 V	Pollution severity	2
Surge voltage category	III	Clearance and creepage distances for control side - load side	≥ 5.5 mm
Dielectric strength for control side - load side	2.5 kVeff	Dielectric strength to mounting rail	4 kVeff / 1 Min.
Impulse withstand voltage	6 kV (1.2/50 µs)	Protection degree	IP20

## Further details of approvals / standards

Certificate No. (DNV)	TAA00001E5	Certificate no. (cULus)	E141197
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## Connection data

Wire connection method	Screw connection	Stripping length, rated connection	8 mm
Tightening torque, max.	0.4 Nm	Clamping range, rated connection	1.5 mm <sup>2</sup>
Clamping range, min.	0.14 mm <sup>2</sup>	Clamping range, max.	2.5 mm <sup>2</sup>
Wire connection cross section AWG, min.	AWG 26	Wire connection cross section AWG, max.	AWG 14
Wire cross-section, solid, min.	0.14 mm <sup>2</sup>	Wire cross-section, solid, max.	2.5 mm <sup>2</sup>
Wire cross-section, solid, min. (AWG)	AWG 26	Wire cross-section, solid, max. (AWG)	AWG 14
Wire connection cross section, finely stranded, min.	0.14 mm <sup>2</sup>	Wire connection cross section, finely stranded, max.	2.5 mm <sup>2</sup>
Wire cross-section, finely stranded, min. (AWG)	AWG 26	Wire cross-section, finely stranded, max. (AWG)	AWG 14
Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, min.	0.25 mm <sup>2</sup>	Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max.	2.5 mm <sup>2</sup>
Conductor cross-section, flexible, AEH (DIN 46228-1), min.	0.25 mm <sup>2</sup>	Conductor cross-section, flexible, AEH (DIN 46228-1), max.	2.5 mm <sup>2</sup>
Wire connection cross section, finely stranded, two clampable wires, min.	0.5 mm <sup>2</sup>	Wire cross-section, finely stranded, two clampable wires, max.	1 mm <sup>2</sup>
Blade size	size PHO		

## Classifications

ETIM 8.0	EC001504	ETIM 9.0	EC001504
ETIM 10.0	EC001504	ECLASS 14.0	27-37-16-04
ECLASS 15.0	27-37-16-04		

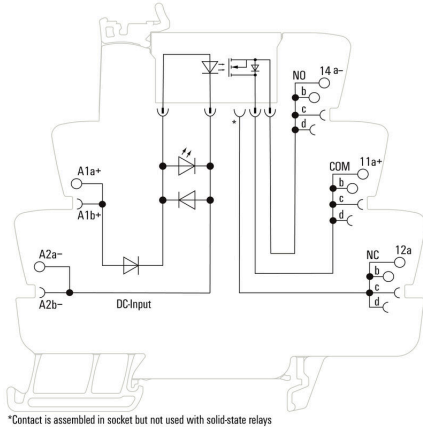
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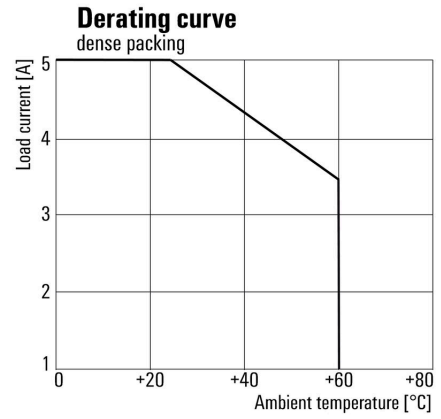
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Drawings

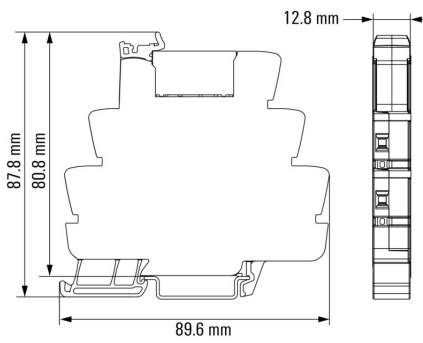
Wiring diagram



Derating curve



Dimensional drawing



Miscellaneous

**Type code TERMSERIES solid-state relay versions**



Type codes