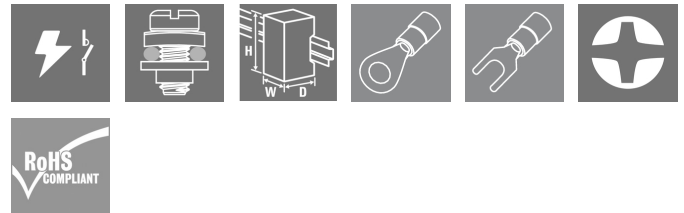


PSSRN S 24VDC 1M K 600VAC 30A T**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com**Product image**

Switch high AC loads up to 30 A completely wear-free, reliable and noiseless.

- Load circuit 1-phase: 42...600 V AC / 30 A
- The integrated current monitoring allows the current monitoring of the load
- Compact design with a width from 22.5 mm
- Ready to use with integrated heat sink and mounting rail base for mounting on DIN rail TS35
- Short circuit protection with circuit breakers possible
- Output connections ring lug suitable

General ordering data

Version	Power Solid-State Relais, Solid state contactor, Rated control voltage: 4...32 V DC , Rated switching voltage: 42...600 V AC +10% -15%, Continuous current: 30 A
Order No.	2986920000
Type	PSSRN S 24VDC 1M K 600VAC 30A T
GTIN (EAN)	4099986853041
Qty.	1 pc(s).

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Technical data**Dimensions and weights**

Depth	167.5 mm	Depth (inches)	6.594 inch
Height	110 mm	Height (inches)	4.331 inch
Width	22.5 mm	Width (inches)	0.886 inch
Net weight	370 g		

Temperatures

Storage temperature	-40 °C... 100 °C	Operating temperature	-25 °C... 70 °C
Humidity	95% relative humidity, non-condensing @ 40°C		

Probability of failure

MTTF	10 a
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Control side

Rated control voltage	4...32 V DC	Nominal control current	7.8 mA... 10.4 mA
Status indicator	Green LED, Yellow LED, Red LED		

Load side

Rated switching voltage	42...600 V AC +10% -15%	Continuous current	30 A (AC 51) @ 40 °C
Max. switching current	30 A	Load category	AC 51
Pulse load, max. current	1150 A (10 ms, non-recurrent)	Load limit integral (I^2t) <10 ms	6,600 A ² s
Switch-on delay	≤ 10 ms	Switch-off delay	≤ 10 ms
Voltage drop at max. load	≤20 V	Leakage current	<3 mA
Min. switching current	1.2 A	Short-circuit-proof	No
Protective circuit, load side	Integrated varistor	Contact type	1 NO contacts (Thyristor (zero-cross switch))
Output voltage frequency range	45...65 Hz		

Alarm output

Connection designation (Alarm output)	11+, 12-	Solid-state type (Alarm output)	Bipolar transistor
Status indicator (Alarm output)	Red LED: device detects a fault	Voltage drop at max. load (Alarm output)	3 V
output current, max. (Alarm output)	50 mA		

TEACH input

Connection designation (TEACH input)	IN1
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Input supply

Connection designation (Input supply)	A1+, A2-	Current consumption (Input supply)	50 mA
Protective circuit (Input supply)	Reverse polarity protection		

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Technical data**General data**

Version	Single-phase with mounted heat sink (zero-voltage switch output)	Rail	TS 35
Colour	black		

Insulation coordination

Pollution severity	2	Surge voltage category	III
Dielectric strength for control side - load side	2.5 kV _{eff}	Dielectric strength of load side - housing	4 kV _{eff}
Impulse withstand voltage	6 kV (1.2/50 µs)	Protection degree	IP20

Further details of approvals / standards

Certificate no. (cULus)	E537615
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Connection data (control side)

Stripping length, control side	13 mm	Stripping length, two clampable wire, control side	6 mm
Wire connection cross-section, solid, control side, max.	2.5 mm ²	Wire connection cross-section, solid, control side, max. (AWG)	AWG 18
Wire connection cross-section, solid, control side, min. (AWG)	AWG 12	Wire connection cross-section, twin wire-end ferrules, control side, max.	2.5 mm ²
Wire connection cross-section, twin wire-end ferrules, control side, min.	1 mm ²	Wire connection method (control side)	Box clamp connection
Min. rated connection clamping range (control side)	1 mm ²	Max. rated connection clamping range (control side)	2.5 mm ²
Wire connection method (control side)	M3 screw with captivated washer	Min. tightening torque (control side)	0.4 Nm
Max. tightening torque (control side)	0.5 Nm	Blade size (control side)	PZ 1

Connection data (load side)

Stripping length, load side	12 mm	Wire connection cross-section, finely stranded, two clampable wires, load side, max.	6 mm ²
Wire connection cross-section, finely stranded, two clampable wires, load side, max. (AWG)	AWG 18	Wire connection cross-section, finely stranded, two clampable wires, load side, min.	1 mm ²
Wire connection cross-section, finely stranded, two clampable wires, load side, min. (AWG)	AWG 10	Wire connection cross-section, solid, load side, max.	6 mm ²
Wire connection cross-section, solid, load side, max. (AWG)	AWG 14	Wire connection cross-section, solid, load side, min.	2.5 mm ²
Wire connection cross-section, solid, load side, min. (AWG)	AWG 10	Wire connection cross-section, stranded, load side, max.	6 mm ²
Wire connection cross-section, stranded, load side, max. (AWG)	AWG 18	Wire connection cross-section, stranded, load side, min.	1 mm ²
Wire connection cross-section, stranded, load side, min. (AWG)	AWG 10	Wire connection cross-section, twin wire-end ferrules, load side, max. (AWG)	AWG 18
Wire connection cross-section, twin wire-end ferrules, load side, min. (AWG)	AWG 12	Wire connection method (load side)	Screw connection
Min. rated connection clamping range (load side)	2.5 mm ²	Max. rated connection clamping range (load side)	6 mm ²
Wire connection method (load side)	M4 screw with captivated washer	Min. tightening torque (load side)	1.5 Nm
Max. tightening torque (load side)	2 Nm	Blade size (load side)	PZ 2

Creation date June 12, 2025 5:51:38 PM CEST

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www.weidmueller.com**Technical data****Classifications**

ETIM 6.0	EC002055	ETIM 7.0	EC002055
ETIM 8.0	EC002055	ETIM 9.0	EC002055
ETIM 10.0	EC002055	ECLASS 9.0	27-37-10-14
ECLASS 9.1	27-37-10-14	ECLASS 10.0	27-37-10-14
ECLASS 11.0	27-37-10-14	ECLASS 12.0	27-37-10-14
ECLASS 13.0	27-37-10-14	ECLASS 14.0	27-37-10-14
ECLASS 15.0	27-37-10-14		

Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	7cl
REACH SVHC	No SVHC above 0.1 wt%

Approvals

Approvals



Approvals MAMID	https://mdcop.weidmueller.com/mediadelivery/rendition/900_319222/-T1z1mm-S800/ https://mdcop.weidmueller.com/mediadelivery/rendition/900_319228/-T1z1mm-S800/
ROHS	Conform
UL File Number Search	UL Website
Certificate no. (cULus)	E537615

Downloads

Approval/Certificate/Document of Conformity	EU Konformitätserklärung / EU Declaration of Conformity
Engineering Data	CAD data – STEP
User Documentation	Beipackzettel / Package Insert – multilingual Handbuch - Deutsch Manual - English
Catalogues	Catalogues in PDF-format

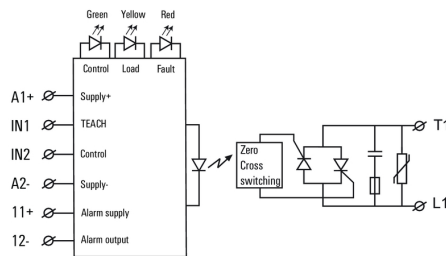
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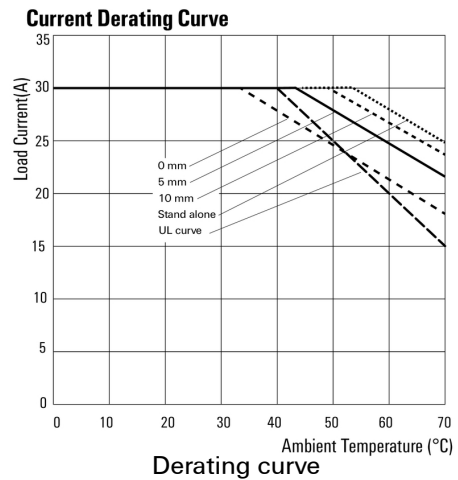
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Drawings

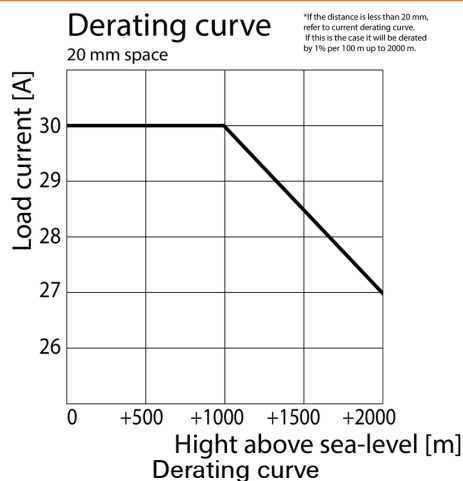
Wiring diagram



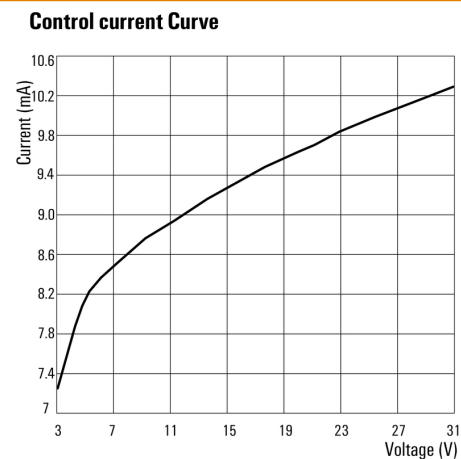
Graph



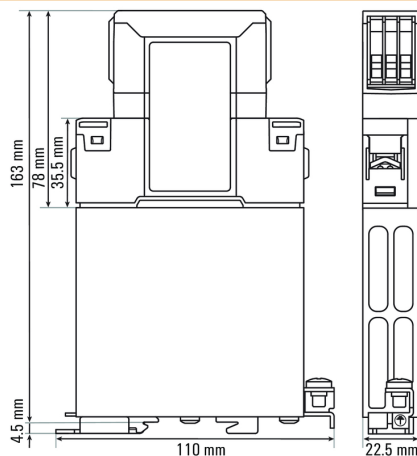
Graph



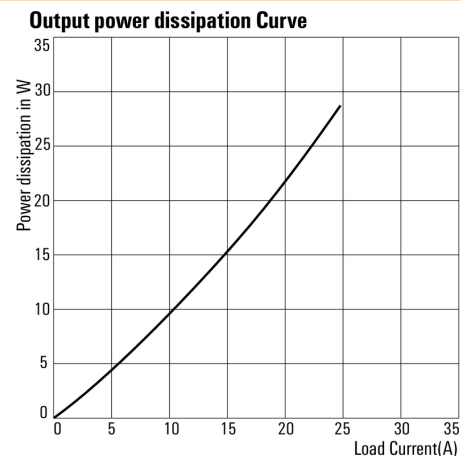
Graph



Dimensional drawing



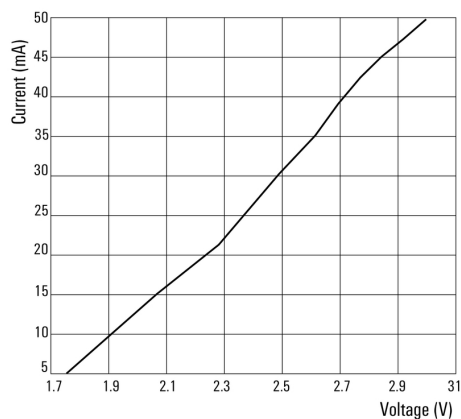
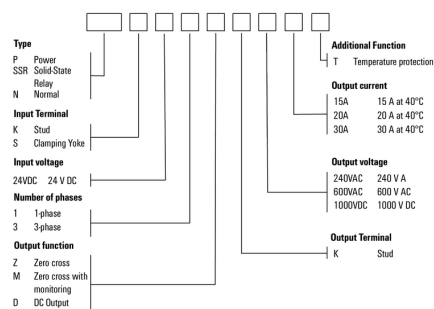
Graph



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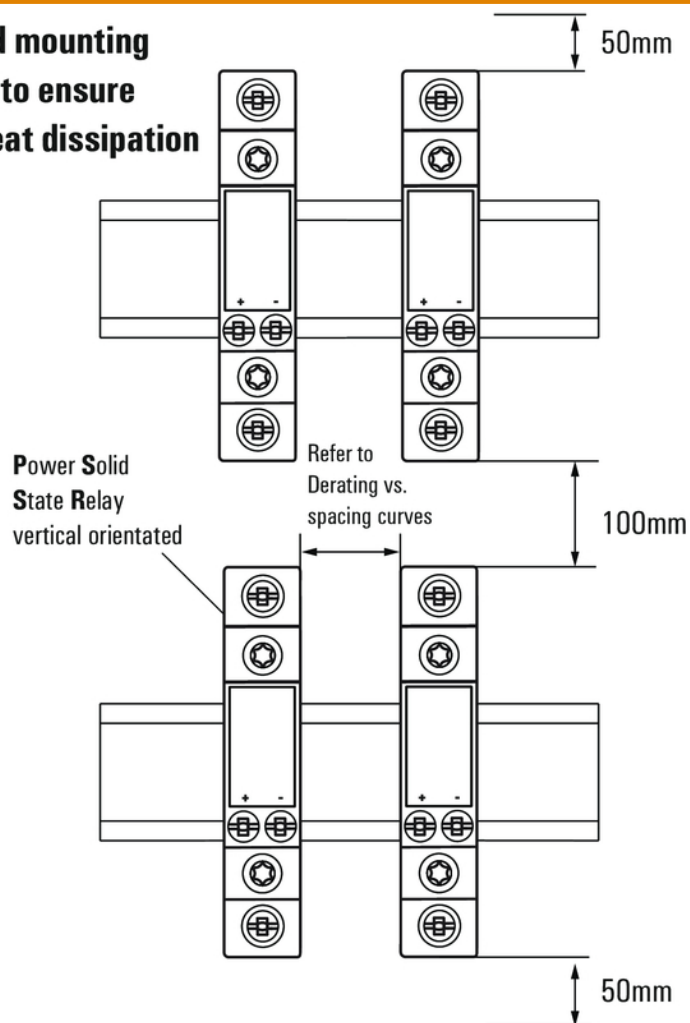
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Drawings
Graph
Voltage drop Alarm Output Curve

Miscellaneous
Power Solid-State Relay (PSSR)


Type codes

Miscellaneous

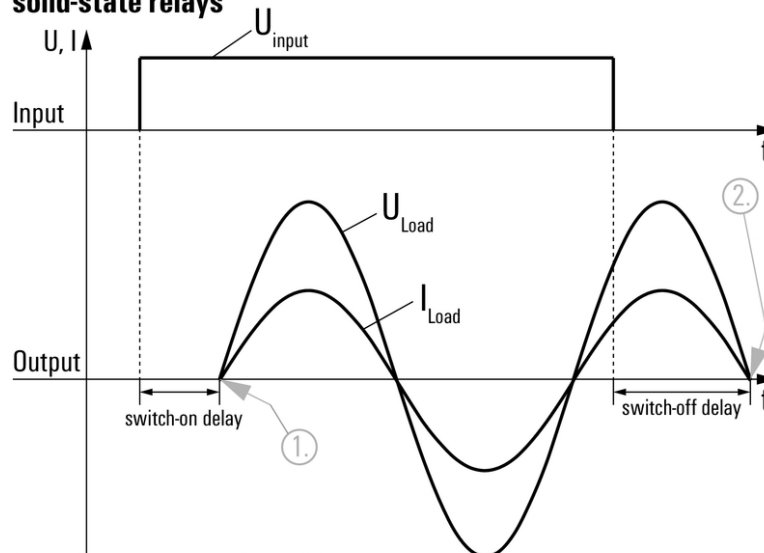
**Suggested mounting
 distances to ensure
 optimal heat dissipation**



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Drawings**Miscellaneous****Signal characteristics of zero cross switching
solid-state relays**

Shown at an example with resistive load.

1. Switches on at first zero cross of mains voltage while control input gets signal.
2. Switches off at next zero cross of mains current after control input signal was switched off.

Switching DC voltages is not possible with this solid-state relays.