

**PSSR 24VDC/1PH AC 25A****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)**Product image**

Similar to illustration

- Load circuit: 1-phase 12...275 V AC / 25 A or 24...510 V AC / 35 A
- Zero-cross switch or instantaneous-switching
- Ready-to-use: snap on - connect - ready
- Wear-free and silent switching
- High capacity for handling surge currents ( $I^2t$ ) up to 6000 A<sup>2</sup>s (10 ms)
- Plug-in current-monitoring module

**General ordering data**

Version	Power Solid-State Relais, Solid state contactor, Rated control voltage: 3.5...32 V DC, Rated switching voltage: 12...275 V AC, Continuous current: 17 A (AC51) at 40 °C, 3.5 A (AC 53), Screw connection
Order No.	<a href="#">1406200000</a>
Type	PSSR 24VDC/1PH AC 25A
GTIN (EAN)	4050118206821
Qty.	1 pc(s).

## PSSR 24VDC/1PH AC 25A

Weidmüller Interface GmbH &amp; Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

## Technical data

## Dimensions and weights

Depth	115.9 mm	Depth (inches)	4.563 inch
Height	98 mm	Height (inches)	3.858 inch
Width	22.5 mm	Width (inches)	0.886 inch
Net weight	244 g		

## Temperatures

Storage temperature	-55 °C...125 °C	Operating temperature	-55 °C...100 °C
Humidity	40...85 % (indoor) no condensation		

## Rated data UL

Certificate No. (cURus)	E360862
-------------------------	---------

## Control side

Rated control voltage	3.5...32 V DC	Nominal control current	10...13 mA
Power rating	< 500 mW	Status indicator	LED yellow
Protective circuit	Suppressor diode	Input frequency	10 Hz

## Load side

Rated switching voltage	12...275 V AC	Continuous current	17 A (AC 51) @ 40 °C; 3.5 A (AC 53)
Max. switching current	25 A	Load category	AC 51, AC 53
Inrush current	140 A (10 ms)	Pulse load, max. current	250 A (10 ms), non-recurrent
Load limit integral ( $I^2t$ ) <10 ms	340 A <sup>2</sup> s	Switch-on delay	≤ 10 ms
Switch-off delay	≤ 10 ms	Voltage drop at max. load	≤ 1.25 V
Leakage current	≤ 1 mA	Min. switching current	5 mA
Short-circuit-proof	No	Protective circuit, load side	Varistor
Contact type	1 NO contact (Triac (zero-cross switch))	Output voltage frequency range	50...60 Hz
max. switching frequency (DC control voltage)	10 Hz		

## General data

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

## Insulation coordination

Insulation coordination according to	EN 60947-4-3:2014	Pollution severity	2
Surge voltage category	III	Dielectric strength for control side - load side	4 kV <sub>eff</sub>
Dielectric strength of load side - housing	4 kV <sub>eff</sub>	Impulse withstand voltage	4 kV (1.2/50 µs)
Protection degree	IP20		

## Further details of approvals / standards

Certificate No. (cURus)	E360862
-------------------------	---------

Creation date July 25, 2024 11:09:42 AM CEST

Catalogue status 13.07.2024 / We reserve the right to make technical changes.

## PSSR 24VDC/1PH AC 25A

Weidmüller Interface GmbH &amp; Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

## Technical data

## Connection data (control side)

Wire connection method (control side)	Screw connection	Nom. rated connection clamping range (control side)	1.5 mm <sup>2</sup>
Min. rated connection clamping range (control side)	0.13 mm <sup>2</sup>	Max. rated connection clamping range (control side)	3.3 mm <sup>2</sup>
Min. tightening torque (control side)	0.4 Nm	Max. tightening torque (control side)	0.5 Nm
Blade size (control side)	0.6 x 3.5 mm		

## Connection data (load side)

Wire connection method (load side)	Screw connection	Nom. rated connection clamping range (load side)	6 mm <sup>2</sup>
Min. rated connection clamping range (load side)	1.5 mm <sup>2</sup>	Max. rated connection clamping range (load side)	6 mm <sup>2</sup>
Wire connection method (load side)	M5 ring cable lug (insulated)	Min. tightening torque (load side)	2 Nm
Max. tightening torque (load side)	3 Nm	Blade size (load side)	Gr. PZ2

## Connection data

Wire connection method	Screw connection
------------------------	------------------

## Classifications

ETIM 6.0	EC002055	ETIM 7.0	EC002055
ETIM 8.0	EC002055	ETIM 9.0	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

## Environmental Product Compliance

REACH SVHC	/
RoHS Compliance Status	Compliant

## Approvals

Approvals



ROHS	Conform
UL File Number Search	UL Website
Certificate No. (cURus)	E360862

## Downloads

Approval/Certificate/Document of Conformity	<a href="#">EU Konformitätserklärung / EU Declaration of Conformity</a>
Engineering Data	<a href="#">CAD data – STEP</a>
User Documentation	<a href="#">Beipackzettel / Package Insert - multilingual</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>
Brochures	

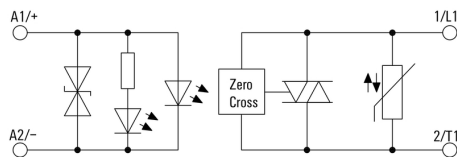
## PSSR 24VDC/1PH AC 25A

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

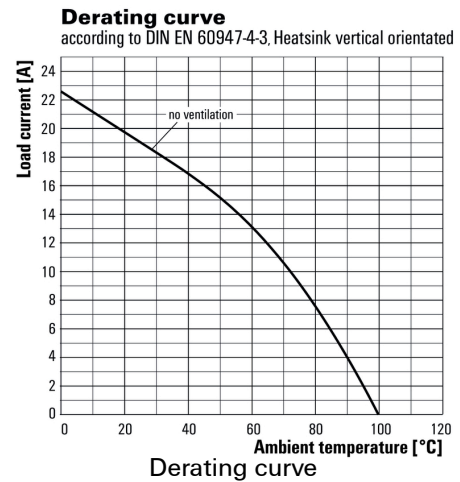
[www.weidmueller.com](http://www.weidmueller.com)

## Drawings

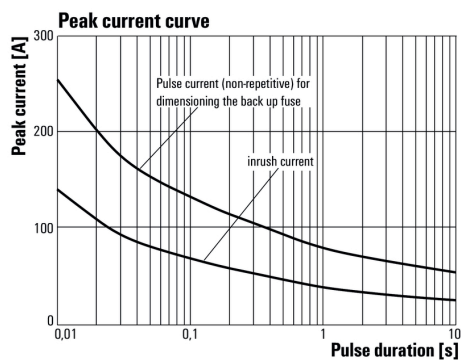
## Wiring diagram



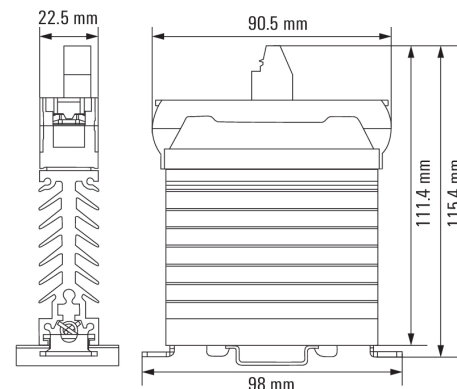
## Graph



## Graph



## Dimensional drawing

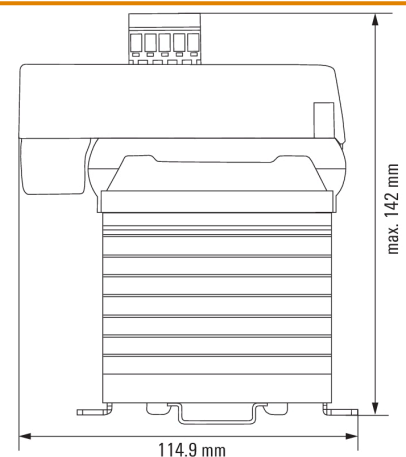


## Example of use



Optional plug-in current-monitoring module (item no.: 1406230000)

## Dimensional drawing



Dimensions of a 1-phase PSSR with current monitoring module attached

## PSSR 24VDC/1PH AC 25A

Weidmüller Interface GmbH &amp; Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

## Accessories

## Blank



ESG is the tried-and-tested marker in MultiCard format for use on many well-known electrical devices. The result is high-quality device marking with a high-contrast appearance.

Various types are available for devices from manufacturers like Siemens, ABB, Beckhoff etc.

Advantages at a glance:

- Tags for universal usage, self-adhesive or clip-on tags, depending on type
- For aligned equipment, e.g. circuit breakers, we supply ESG markers for clipping onto tag rails
- Individual laser-quality printing according to specifications

**For custom printing:** Please send us a file of our labeling software M-Print PRO or M-Print PRO Online (without installation) for your labeling specifications.

## General ordering data

Type	ESG 6/15 RIDER MC NE WS	Version
Order No.	<a href="#">1881280000</a>	ESG, Device markers x 15 mm, PA 66, Colour: white, pluggable
GTIN (EAN)	4032248482276	
Qty.	200 pc(s).	

## ESG 6/15

**Guaranteed long service life: ESG**

The multi-colour and multi-format labels have a strong adhesive layer to ensure the best possible adhesion to the underlying surface. Double laminated polyester makes the basic material very thin and yet extremely tear-resistant.

**Your benefits with MultiMark**

- "Different materials for various requirements"
- Can be used with equipment from many manufacturers
- Device markers with a familiar design

## General ordering data

Type	ESG 6/15 MM WS	Version
Order No.	<a href="#">2619940000</a>	ESG, Device markers, 6 x 15 mm, white
GTIN (EAN)	4050118626148	
Qty.	3,000 pc(s).	

**PSSR 24VDC/1PH AC 25A****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)**Accessories****Crosshead screwdriver Pozidriv**

Crosshead screwdriver, Pozidriv, SDK PZ DIN 5262, ISO 8764/2-PZ, output to ISO 8764/1-PZ, ChromTop tip, SoftFinish grip

**General ordering data**

Type	SDK PZ2 X 100	Version
Order No.	<a href="#">2749450000</a>	Screwdriver, Blade width (B): 100 mm, Blade thickness (A):
GTIN (EAN)	4050118895674	
Qty.	1 pc(s).	

**Crosshead screwdriver, Pozidrive**

VDE insulated screwdriver sets, for working on live parts up to 1000 V AC and 1500 V DC, DIN EN 60900. IEC 900. Each piece is "GS" safety tested. Blade made from fully hardened, high-alloy chromium-vanadium-molybdenum steel, gun-metal finish.

**General ordering data**

Type	SDIK SLIM PZ2 X 100	Version
Order No.	<a href="#">2749680000</a>	Screwdriver, Blade width (B): 2 mm, 100 mm, Blade thickness (A): 2
GTIN (EAN)	4050118896428	
Qty.	1 pc(s).	

**PSSR 24VDC/1PH AC 25A****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)**Accessories****ESG 6/17****Guaranteed long service life: ESG**

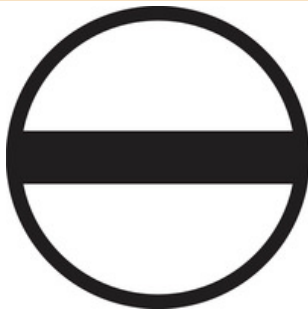
The multi-colour and multi-format labels have a strong adhesive layer to ensure the best possible adhesion to the underlying surface. Double laminated polyester makes the basic material very thin and yet extremely tear-resistant.

**Your benefits with MultiMark**

- "Different materials for various requirements"
- Can be used with equipment from many manufacturers
- Device markers with a familiar design

**General ordering data**

Type	ESG 6/17 MM WS	Version
Order No.	<a href="#">2005100000</a>	ESG, Device markers, 6 x 17 mm, white
GTIN (EAN)	4050118390728	
Qty.	3,000 pc(s).	

**Slotted screwdriver**

VDE insulated screwdriver sets, for working on live parts up to 1000 V AC and 1500 V DC, DIN EN 60900. IEC 900. Each piece is "GS" safety tested. Blade made from fully hardened, high-alloy chromium-vanadium-molybdenum steel, gun-metal finish.

**General ordering data**

Type	SDIS SLIM 0.6X3.5X100	Version
Order No.	<a href="#">2749610000</a>	Mounting tool, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade
GTIN (EAN)	4050118896350	thickness (A): 0.6 mm
Qty.	1 pc(s).	

## PSSR 24VDC/1PH AC 25A

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

[www.weidmueller.com](http://www.weidmueller.com)

## Accessories

### Current-monitoring modules

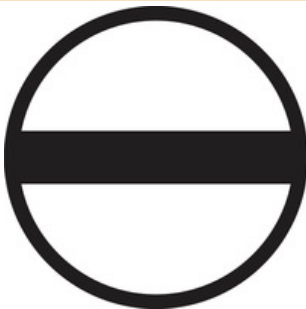


- Monitoring of up to 5 consumers connected in parallel
- Monitoring of single failure and short-circuit
- Can be plugged into the single-phase PSSRs with heat sink
- Feedback output for error message
- Teach button on the module and external teach input
- Undercurrent switching threshold:  $0.84 \times I_{teach}$

### General ordering data

Type	PSSR 1PH CONTROL UNIT
Order No.	<a href="#">1406230000</a>
GTIN (EAN)	4050118206739
Qty.	1 pc(s).

### Slotted screwdriver



Slotted screwdriver with rounded blade SD DIN 5265, ISO 2380/2, output to DIN 5264, ISO 2380/1. ChromTop tip, SoftFinish grip

### General ordering data

Type	SDS 0.6X3.5X100	Version
Order No.	<a href="#">2749340000</a>	Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade
GTIN (EAN)	4050118895568	thickness (A): 0.6 mm
Qty.	1 pc(s).	



**PSSR 24VDC/1PH AC 25A****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)**Accessories****Slotted screwdriver**

VDE insulated slot-head screwdriver, SDI DIN 7437, ISO 2380/2, drive output acc. to DIN 5264, ISO 2380/1. SoftFinish grip

**General ordering data**

Type	SDIS 0.6X3.5X100	Version
Order No.	<a href="#">2749810000</a>	Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade
GTIN (EAN)	4050118897012	thickness (A): 0.6 mm
Qty.	1 pc(s).	

**SAK-Series**

Weidmüller's range of products includes end brackets that guarantee a permanent, reliable mounting on the terminal rail and prevent sliding. Versions with and without screws are available. The end brackets include marking options, also for group markers, and also a test plug holder.

**General ordering data**

Type	MEW 35/1	Version
Order No.	<a href="#">1805610000</a>	End bracket, grey, TS 35, metal, Width: 12.5 mm
GTIN (EAN)	4032248287017	
Qty.	10 pc(s).	

**PSSR 24VDC/1PH AC 25A****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)**Accessories****Crosshead screwdriver Pozidriv**

VDE insulated crosshead screwdriver type Pozidriv SDIK  
PZ DIN 7438, ISO 8764/2-PZ, output to ISO 8764-PZ,  
SoftFinish grip

**General ordering data**

Type	SDIK PZ2 X 100	Version
Order No.	<a href="#">2749930000</a>	Screwdriver, Blade width (B): 2 mm, 100 mm, Blade thickness (A): 2
GTIN (EAN)	4050118897234	
Qty.	1 pc(s).	

## PSSR 24VDC/1PH AC 25A

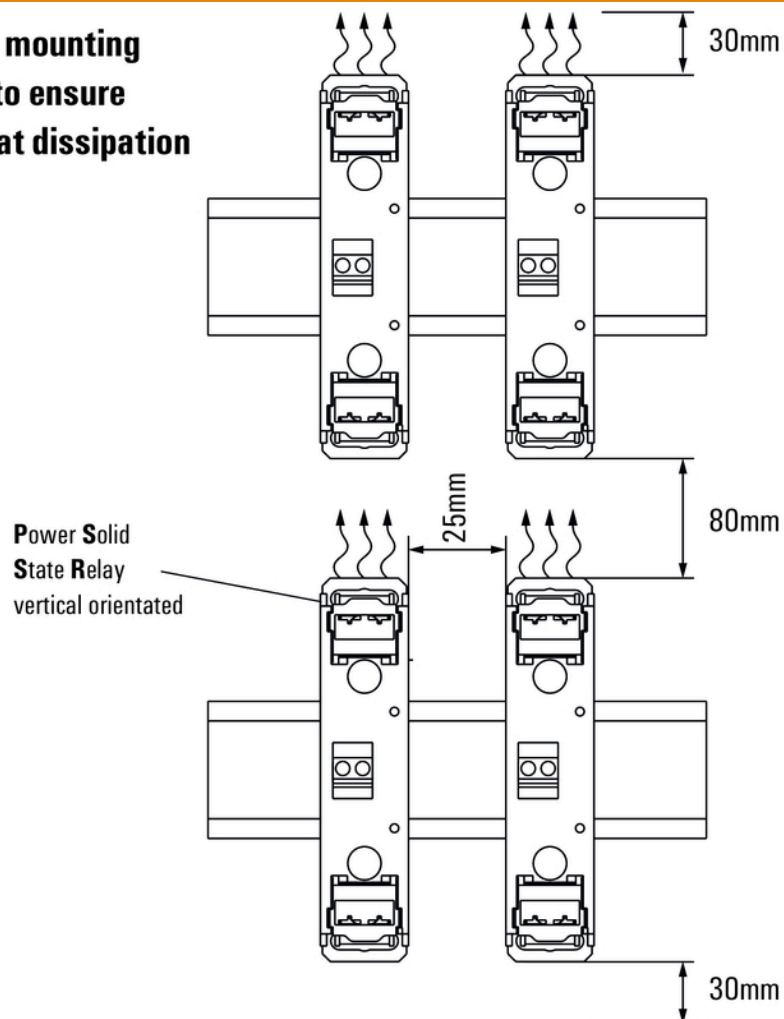
**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 26  
D-32758 Detmold  
Germany

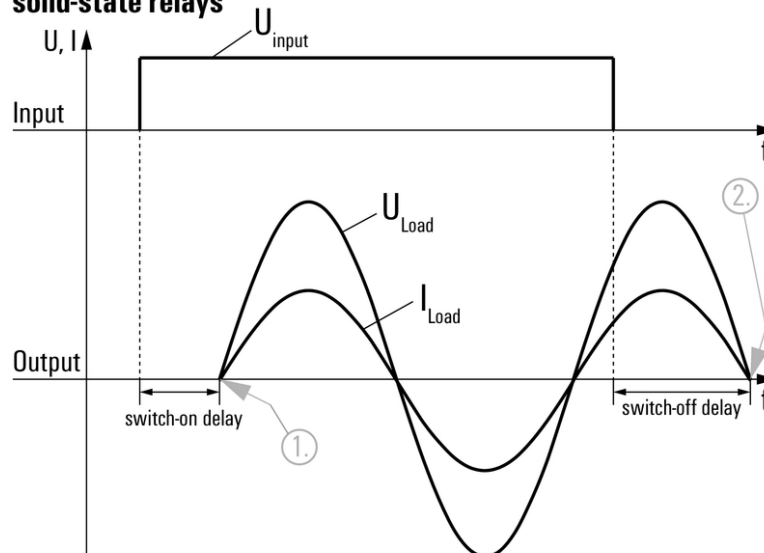
[www.weidmueller.com](http://www.weidmueller.com)

# Drawings

## Miscellaneous

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



**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.