

When failure is not an option:  
Single Redundancy Module

# SLR02

- Easy set-up of N+1 redundancies on the DIN-Rail
- Decoupling diodes
- Ready relay contacts
- For use with 24...28V power supplies up to max. 35A



Data sheet

## Short description

When failures might cause cost extensive downtimes, you should design a redundant power supply by using several (N+1) identical power supplies.

The redundancy module SLR02 is designed to create an N+1 redundancy in combination with the PULS 24...28V power supplies units SL10, SL20 or SL30 or other 24...28V power supplies with an output current of up to 30A (max. 35A). One SLR02 is required for two power supply units. The module decouples the power supply outputs from each other, so that in case of failure one power supply unit cannot overload the other power

supply units.

A relay-changeover contact, picked up under normal conditions and dropped in case of failure, indicates the status of each connected power supply unit.

A Single Redundancy Module, the SLR01, is available to design a redundancy with one attached power supply unit and an output current of up to 40A (max. 50A). For smaller current values of 2.5A, 5A and 10A PULS also offers the SLR2, SLR5 and SLR10 power supplies with integrated redundancy modules.

## Decoupling part

Voltage	
• nominal value	24 V DC
• max. rated	35 V, short-term 45 V
Voltage drop	
$V_{in} \rightarrow V_{out}$	typ. 0.5 V
Current per input	
• nominal value	20-30 A
• max. rated	35 A
Output current	
• nominal value	20-30 A
• max. rated	35 A

Parallel operation for increasing the power is only permissible if the total output current cannot exceed the maximum rated value of 35A (danger of overloading).

Inverse battery protection	yes
Connection	via stable screw terminals
• Connector size	solid: 0.5 - 6 mm <sup>2</sup> flexible: 0.5-4 mm <sup>2</sup> range
Note:	The GND connector on the module exclusively serves as intrinsic power supply

## Construction / Mechanics\*

Housing dimensions and Weight	
• W x H x D	48 mm x 124 mm x 102 mm (+ DIN Rail)
• Free space above/below for ventilation	above/below 10 mm recommended left/right 10 mm recommended
• Weight	625 g

Design advantages:

- All connection blocks are easy to reach as mounted at the front panel

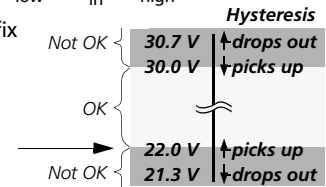
## Order information

Order number
SLR02
SLZ02

Description
Single Redundancy Module (Screw mounting set, two needed per unit)

## Relay contacts

Relay type	Changeover contact, picked-up during normal operation
• relay picks up („ok“)	when $V_{in}$ between $V_{low}$ and $V_{high}$
• relay drops out	when $V_{in} < V_{low}$ or $V_{in} > V_{high}$
Upper limit $V_{high}$	30 V $\pm$ 5% fix
• hysteresis	appr. 0.7 V
Lower limit $V_{low}$	adjustable
• guaranteed range	16...27 V
• preset	22 V $\pm$ 1%
• hysteresis	appr. 0.7 V
Contact load	28 V DC / 1 A or 120 V AC / 0.5 A
Connection	via stable screw terminals
• connector size	solid: 0.5 - 6 mm <sup>2</sup> flexible: 0.5-4 mm <sup>2</sup> range
LEDs on the front panel	
• for inputs	green LED, when $V_{in}$ between $V_{low}$ and $V_{high}$
• for output	green LED, when $V_{out} >$ appr. 2.5...3.5 V



Note:

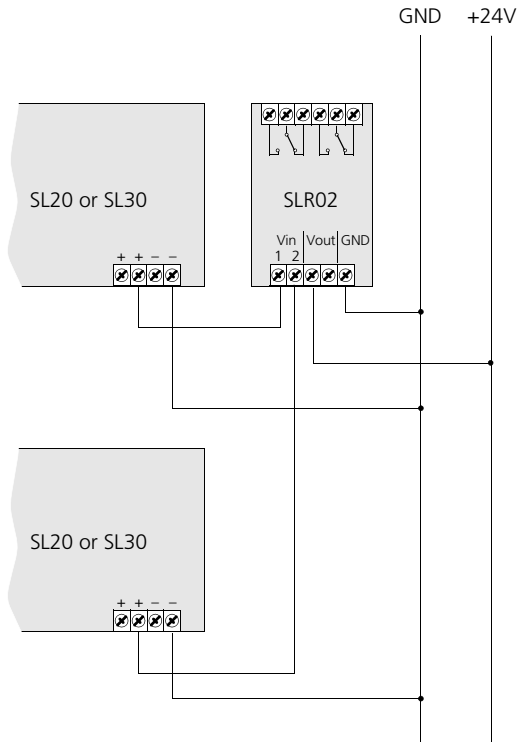
- All relay contacts are potential-free.
- The SLR02 includes two of these relay contacts, each per input.

## Further information

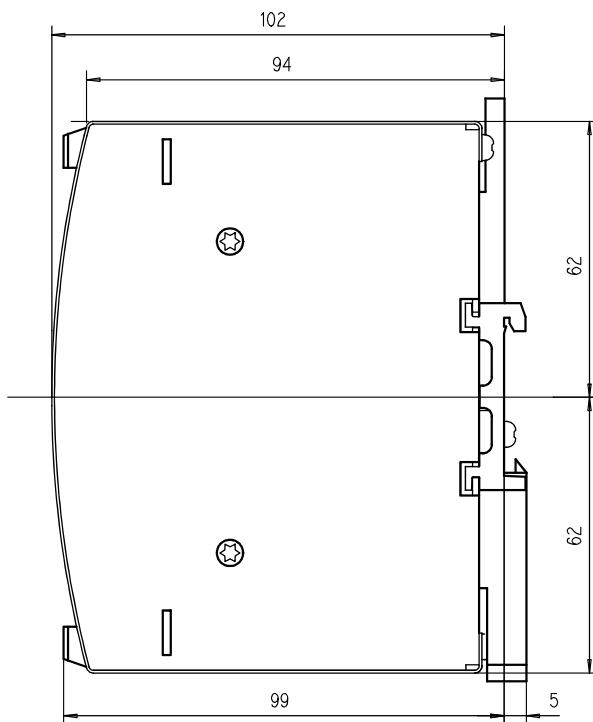
Test voltage	
• relay cont., $V_{in}$ , $V_{out}$	500 V AC
• $V_{in}$ , $V_{out}$ / housing	500 V AC
Ambient temperature range $T_{amb}$	Operation: -10°C...+70°C Storage: -25°C...+85°C
Efficiency	> 97 %

\*For further information see data sheets „The SilverLine“, „SilverLine Family Branches“

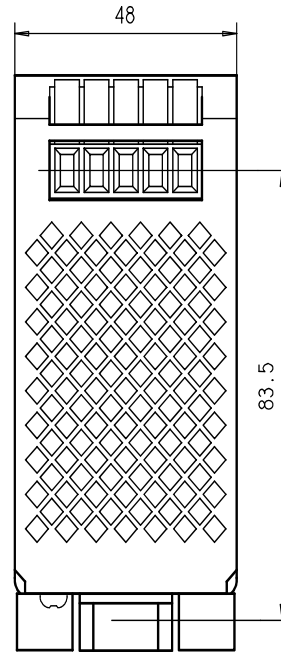
## Power wiring SLR02



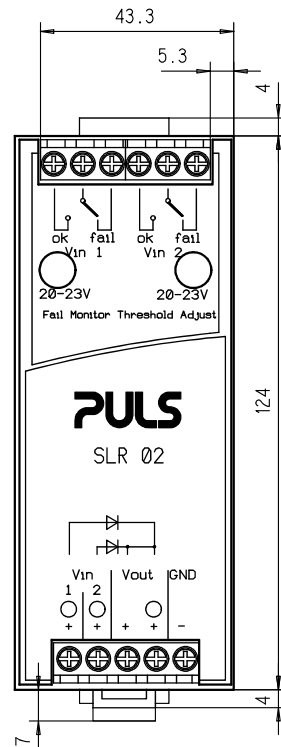
Front view SLR02



## Side view SLR02



Bottom view SLR02



**Further information**, especially about EMC, Connections, Safety, Approvals, Mechanics and Mounting, see page 2 of „The SilverLine“ data sheet.