Type series SZL / SUL
Type series SZZL / SUZL

adjustable slide resistors 105 – 1400 W, up to max. 15 A

IP 20

SZL 400x65

SZ.L ..   Cemented one-tube(SZL..)- or two-tube (SZZL..) adjustable slide resistors with manual operation (standard version)

SU.L ..   Uncemented one-tube (SUL..)- or two-tube (SUZL..)- adjustable slide resistors with manual operation (special version)

in laboratory version, enclosure with aluminium coloured varnish and rubber feet, degree of protection IP 20.

Technologies

- 3 safety sockets 4 mm
- 1 earthing safety socket 4mm
- completely closed enclosure
- rubber feet for location on tables
- load capacity up to 15 A

The safety sockets form a secure 4 mm plug system together with the adjusted safety plugs, which are protected by rigid insulation coverings. So you cannot touch any blank energised parts. The use of conventional 4 mm plugs is possible; we do not provide a lug connection.

The resistance value can be adjusted between zero and the requested maximum resistance value by a slider.

Attention: There is danger of burning, because the slider is possibly in the heat sector.

We also equip with a spindle drive, which is charged additionally. (only D=65 + 85). The adjustment is accomplished sensitively by turning a handwheel.

The adjustable slide resistor can be used as voltage divider with three sockets as well as series resistor with two sockets. When optionally equipped with micro-fuse only wiring as series resistor is possible (2 sockets).

If you use an adjustable slide resistor as load resistor we suggest a stepped winding adapted to the flow of the current.

Even more so if the adjusting range of current is higher than 1:1,5. The resistance wire will be oxidized and is therefore insulating. You will get a reduced resistor size.

   ⇒ type SU.L .. x .. G
(Compare technical indications for dimensioning on page T414E)

Special design

- individual varnish on request
- with micro-fuse

Elektrische und mechanische Daten

| Type series	typical power in W at a surface temperature of		production range Ω−value		dimensions in mm					approx. weight in kg
L x D	250°C	300°C	von	bis	H	P nur S..PL	L	O	R	
SZL 160x45	105	150	0,47	1,2 k	123	153	160	206	75	1,2
SZL 200x45	135	180	0,56	1,8 k	123	153	200	246	75	1,5
SZL 300x45	210	285	1,0	2,7 k	123	153	300	346	75	1,8
SZ.L 300x65	320	430	1,5	3,9 k	156	186	300	346	92	2,5
SZ.L 400x65	440	600	1,8	5,6 k	156	186	400	446	92	3,2
SZ.L 400x85	610	850	2,7	6,8 k	181	211	400	450	120	4,2
SZZ.L 300x65	620	860	2,7	1,8 k	156	186	300	346	185	4,5
SZZ.L 400x65	870	1200	3,9	2,7 k	156	186	400	446	185	5,5
SZZ.L 500x65	1120	1600	5,6	3,3 k	156	186	500	546	185	6,5
SZZ.L 600x65	1400	2000	6,8	4,7 k	156	186	600	646	185	7,5

At continuous dissipation we advise to select from the table surface temperature 250°C.

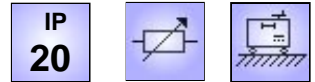
SZ.L / SU.L .. with manual operation

SZL / SUL   SZZL / SUZL
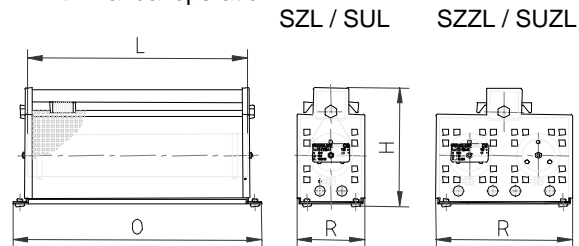
11 M 0200

SZ.PL / SU.PL .. with spindle drive

SZPL / SUPL   SZZPL / SUZPL
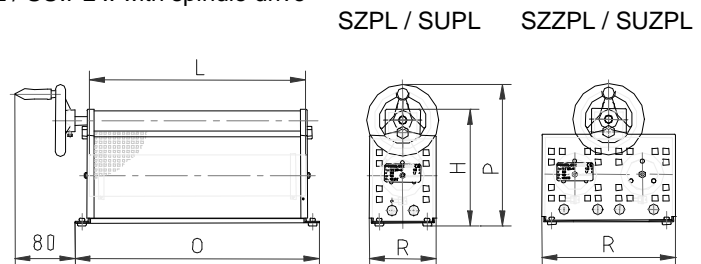
11 M 0201

Type series SZZPL / SUZPL
Type series SZDPL / SUDPL

adjustable slide resistors 1180 – 3800 W, up to max. 30 A

IP 20

SZDPL 400x85

SZ.PL .. Cemented two-tube (SZZPL..)- or three-tube (SZDPL..) adjustable slide resistors with spindle drive (standard version)

SU.PL .. Uncemented two-tube (SUZPL..)- or three-tube (SUDPL..) adjustable slide resistors with spindle drive (special version)

in laboratory version, enclosure with aluminium coloured varnish and rubber feet, degree of protection IP 20.

Technologies

- with spindle drive
- 3 safety sockets 4 mm
- 1 earthing safety socket 4mm
- completely closed enclosure
- rubber feet for location on tables
- load capacity up to 30 A (one-phase version)

The safety sockets form a secure 4 mm plug system together with the adjusted safety plugs, which are protected by rigid insulation coverings. So you cannot touch any blank energised parts. The use of conventional 4 mm plugs is possible; we do not provide a lug connection.

The resistance value can be adjusted between zero and the requested maximum resistance value. The adjustment is accomplished sensitively by turning a handwheel. The advantage of the spindle drive is, that there is no danger of burning, because the operating is outside the heat sector.

The adjustable slide resistor can be used as voltage divider with three sockets as well as series resistor with two sockets. When optionally equipped with micro-fuse only wirings of series resistor is possible (2 sockets).

If you use an adjustable slide resistor as load resistor we suggest a stepped wiring adapted to the flow of the current. Even more so if the adjusting range of current is higher than 1:1,5. The resistance wire will be oxidized and is therefore insulating. You will get a reduced resistor size
$\Rightarrow$ Type SU.PL .. x .. G, see page 414E

Special design

- individual varnish on request
- with micro-fuse
- three-phase version (only type series S.DPL)

Electrical and mechanical data

Type series L x D	typical power in W at a surface temperature of		production range Ω−value		dimensions in mm				weight in kg
	250°C	300°C	von	bis	H	L	O	R	
SZZPL 400x85	1180	1700	1,2	3,3k	235	400	444	230	8,5
SZZPL 600x85	1880	2700	1,8	4,7k	235	600	644	230	11,5
SZZPL 800x85	2520	3700	2,7	6,8k	235	800	844	230	14,5
SZDPL 600x85	2800	4000	2,7	3,3k	235	600	644	340	15,0
SZDPL 800x85	3800	5500	3,9	4,7k	235	800	844	340	23,0

At continuous dissipation we advise to select from the table surface temperature 250°C.

SZ.PL / SU.PL ..   SZZPL SUZPL   SZDPL SUDPL

11 M 0202
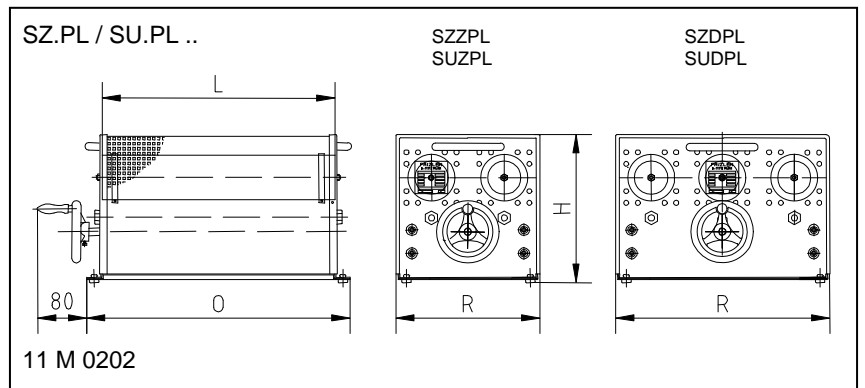
Type SU..L / SU.PL:

For the exact dimensioning of a load resistor we need the following details: (calculation examples pls. look on page T414E)
- maximum voltage value of the supply unit which is to be loaded.
- maximum current at this voltage
- minimum current to be adjusted at this voltage
- supply unit with one- or three-phase output

It is important to know, if the partial resistance, which results from maximum voltage and maximum current should be a separate fixed resistor, which is connected in series, or a part of the adjustable slide resistor. If so, we suggest to provide a mechanical stop to avoid overload or short circuit.

Example of dimensioning and selection of a specific unit:

adjustable slide resistors with spindle drive, 2800 W, resistance value 100 Ω;

SZDPL   600 x 85 - 100
— ohmic value ± 10%
— size
— type