POWER LAYER RESISTOR PLR

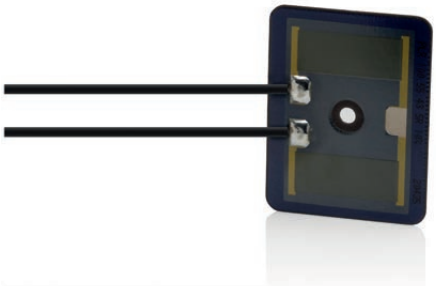
The PLR is a power layer resistor based on a steel substrate. With its compact design, it offers high power density in a confined space.

Standard versions are the PLR with 100, 200 and 300 watts.

This product is available in a wide range of versions. Tell us your desired output, dimensions and resistance value and we will produce the right resistor element to suit your requirements.

Advantages
– Space-saving
– Simple assembly
– Compact design
– Low inductance

Application examples
– Braking resistor
– Charge and discharge resistor
– Heating resistor



Electrical Data	
Resistance value	Freely selectable,see table
Tolerances	≥10 %
Temperature coefficient	> 200 ppm/°C
Supply voltage	up to 1,000 V
Insulation voltage	2,500 V at 2s (100% control)
Inductance	< 2 µH
Long term stability	1,000 h at 125 °C and P_{nom}, Tol. ± 1%, ΔR ±0.2% max.

Mechanical Data	
Dimensions	See table
Thickness steel substrate	approx. 1 mm
Tightening torque fastening screw	3 Nm
Mounting hole for screws	See table
Protective coating	Glass

Environmental Data	
Operating temperature	-50 °C to +200 °C
Storage temperature	0 °C to 85 °C at 80% RH max.
Protection class ac. to IEC 60529	IP 00

Overview

	Nominal power	Resistance values ±10 %		Length	Width	Mounting hole Diameter	approx. Weight
PLR series	W	Min. Ω	Max. Ω	mm / inch	mm / inch	mm / inch	g
PLR 100.61.41	100	10	680	61.0 / 2.4	40.5 / 1.6	5.3 / 0.20	20
PLR 200.70.51	200	10	680	69.5 / 2.7	51.5 / 2.0	4.3 / 0.16	28
PLR 300.70.61	300	10	680	69.5 / 2.7	61.5 / 2.4	4.3 / 0.16	34

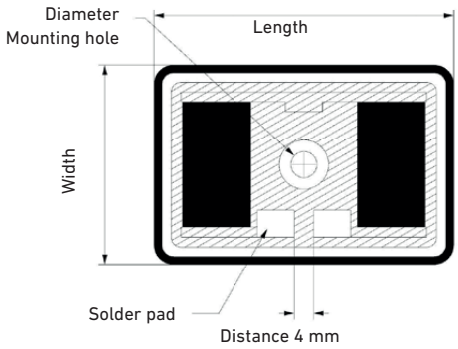
Mechanical Tolerances max. ±0.2 mm

All performance specifications apply when mounted on a surface with good thermal conductivity.

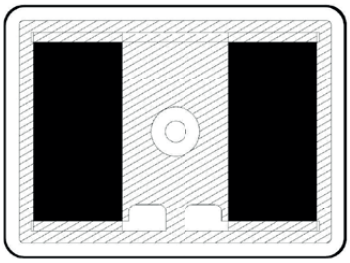
Please note the manufacturing-related curvature of the steel substrate and take into account the temperature-related expansion during heating when installing the resistor. For improved heat dissipation, we recommend using thermal interface materials.

POWER LAYER RESISTOR PLR

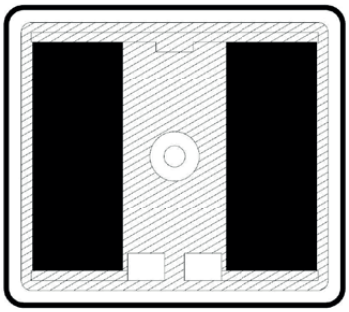
PLR 100.61.41



PLR 200.70.51

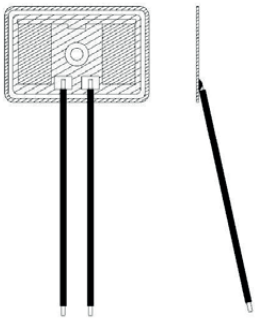


PLR 300.70.61

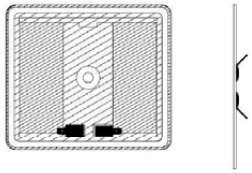


Electrical connection
Wire UL1015, AWG 20, sw, 100 mm
Plug-in terminal, 2.8 x 0.8 mm
Solder pad tinned
Solder pad untinned
Others on request

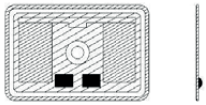
Wire



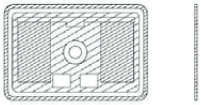
Plug-in terminal



Solder pad tinned



Solder pad untinned



Order information

For an order, we need the following information

Series	Size	Resistance value	Tolerance	Electrical connection
PLR	100.61.41	Please specify	≥ 10 % (K)	Wire (K)
	200.70.51			Plug-in terminal (S)
	300.70.61			Solder pad tinned (PSn)
				Solder pad untinned (P)

Metallux cannot picture the customer's operating and application conditions and the customer's existing environmental influences.
We therefore recommend that you carry out your own investigations into the planned use of the products under the actual operating conditions.

We continuously improve our products and also update our data sheets regularly. In this respect, there may be changes in the specification.
These changes will apply to orders received by us from the time of the update, unless otherwise agreed.

Our products comply with Directive 2011/65/EU (RoHS) including Directive 2015/863/EU and Regulation (EC) No. 1907/2006 (REACH).