# FLP Current Sense Resistor



#### Construction



#### Dimensions





- Welded Construction
- Flameproof
- Inductance Less Than  $10 \mu H$
- Solderable Copper Leads

#### Applications

- Current Sensing
- Feedback
- Low Inductance
- Surge And Pulse

1	Tin plated Copper leads
2	Weld point
3	Resistive element



Туре	Power rating at 85°C	Dimensions (mm)			Typical Weight Per Pc (gms) Based On Resistance Value		
		$L1\pm1.0$	$d\pm 0.05$	$LM \pm 1.0$	low	med	high
FLP-1	1 W	11 to 15	0.8	40	1.25	0.75	0.5
FLP-2	2W	16.3 to 22.5	1.0	45	1.75	1.1	0.75
FLP-3	3W	28 to 35.5	1.0	60	2.25	1.4	0.85

Note : Resistance values must be checked using 4 1/2 digit micro ohm meter with four wire system and insulated clips, which should be attached to the resistor leads over centered length "LM" in the case of FLP series. In differing conditions, please compensate by  $\pm 0.4 \text{m} \Omega/\text{cm}$ .

## Ordering Information

Example:

FLP-1	1	F	R01	С	
(1)	(2)	(3)	(4)	(5)	
Series Name	Power	Resistance	Resistance	(5)	
	Rating	Tolerance	Value	TCR	
(1)Type:FLF	SERIES	5			
(2) Power Rating: $1=1W$ , $3=3W$ , $5=5W$					
(3)Tolerance: $F=\pm 1\%$ , $G=\pm 2\%$ , $H=\pm 3\%$ , $J=\pm 5\%$ , $K=\pm 10\%$					
(4)Resistance Value:R10=0.01 $\Omega$ , R003=0.003 $\Omega$					
$(5)$ TCR: $\pm 20$	0ppm/°C				

#### Reference Standards

IEC 60115-1

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# **FLP Current Sense Resistor**

### Applications And Ratings

Type	Power rating	Resistance Value		
· · ·	at 85 C	MIN.	MAX.	
FLP-1	1 W	R003	R051	
FLP-2	2W	R0040	R068	
FLP-3	3W	R0056	R10	

# **Performance** Characteristics

## Derating Curve



Parameter / Performance Test & Test Method	Performance Requirements
Power Rating (Rated Ambient Temperature )	Full power dissipation at 85 $^\circ C$ and linearly derated to zero at $+$ 325 $^\circ C$
Insulation	Not Insulated
Resistance Tolerance	$\pm 10\%[K]; \pm 5\%[J]; \pm 3\%[H]; \pm 2\%[G]; \pm 1\%[F]$
Temperature Range	$-55^{\circ}$ C to $+325^{\circ}$ C with suitable derating as per derating curve above
Voltage Rating / Limiting Voltage / Max. Working Voltage	$\sqrt{P \times R}$
Short time Overload (5 x Rated Power for 5 Secs.)	$ \Delta R \pm [ 0.75 \% + R0005 ]- Average  \Delta R \pm [ 1.25 \% + R0005 ]- For resistance values near maximum range $
Temperature Co-efficient of Resistance (Measured from -55 $^{\circ}$ C to +125 $^{\circ}$ C referenced to +30 $^{\circ}$ C)	TCR To ±20 ppm/°C [ Depending on resistance value ]
Damp Heat (Steady State ) (40°C at 93 % R.H. for 1000 Hrs. – no load applied )	$\Delta R \pm [0.5 \% + R0005] - Average$
Endurance – Load Life [ $70^{\circ}$ C with limiting voltage -1.5 hours on / 0.5 hours off for 1000 hours ]	ΔR ± [ 2.75 % + R0005 ]-Average
Resistance to Soldering heat - (260°C-270°C for 10 Secs)	Δ R ± [ 0.2 % + R0005 ]-Typical
Solderabillity (As per IEC pub. 60068-2-20)	Must meet the requirements laid down

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