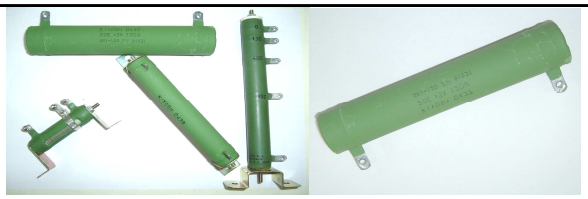
SRI / SRP



KIYOSH SILICON COATED WIRE WOUND RESISTOR WITH RADIAL TAGS OR WIRE

Features:

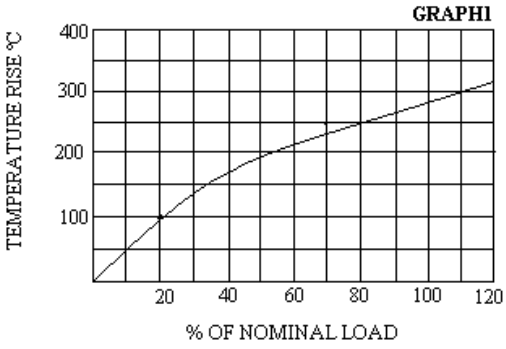
- Spot Welded Joints For Reliability
- Low Temperature Coefficient
- Exceptional Stability And Performance
- Low Surface Temperature
- Industrial And Professional Grade Available
- Non-Inductive Type Available
- Fixed Taps And Adjustable Tags Available
- Custom Designed Resistor Assemblies Are Available On Request
- Brackets Available For Horizontal As Well As Vertical Mounting.
- Flame Proof Silicon Coating Available.
- Professional Grade Available As Per JSS 50402 & IS 8909 (PART III)-1978

SPECIFICATIONS:

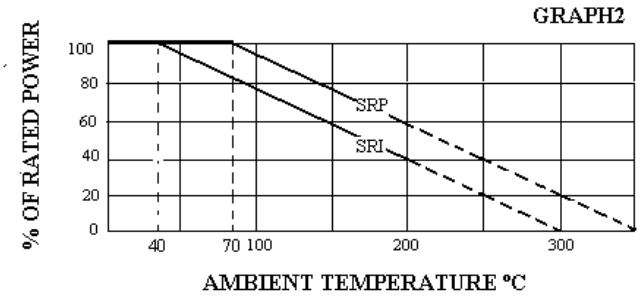
• **OHMIC RANGE**	:	0.1Ω To 300KΩ (Std. Resistances from E-24 Series. Other Resistances available on request).
• **TOLERANCE**	:	Standard-5%. (1%, 2% Available On Request)
• **POWER RATINGS (BASED ON 40° C)**	:	5W To 1000W
• **TEMPERATURE COEFFICIENT**	:	Low Value : ±50ppm 0.1Ω to 9.1Ω Middle Value : ±50ppm 10Ω to 910Ω High Value : ±150ppm 1KΩ and above Other ppm available on request
• **SURFACE TEMPERATURE**	:	300° C max at 40° C
• **DERATE AT ZERO**	:	At 300° C for SRI series and at 350° C for SRP series
• **OVERLOAD**	:	10 times the wattage applied for 5 seconds
• **OPERATING TEMPERATURE**	:	-55° C to 200° C
• **DIELECTRIC VOLTAGE**	:	Based on indicated creepage distance (k in table) from terminals to mounting bracket. 5mm: 1000V; 6mm: 1200V

MATERIALS USED

- **CORE** : Ceramic Core
- **TERMINALS** : Brass Terminals (SS Terminals And Brass Screw Nut Terminal On Request)
- **WIRE** : Cu-Ni Or Ni-Cr Alloy
- **COATING** : Silicon Varnish



TEMPERATURE RISE AT CONSTANT LOAD



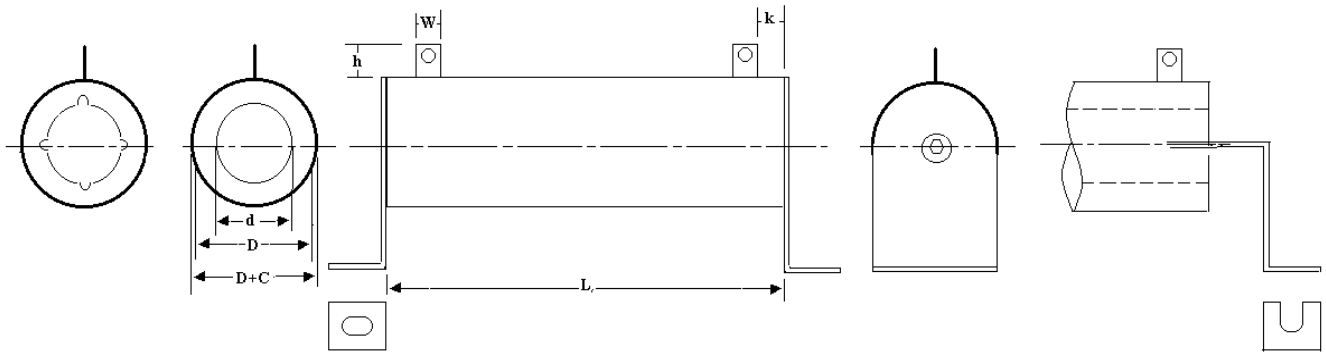
DERATING: 100% @ 40° C TO 0% @ 300° C FOR SRI
100% @ 70° C TO 0% @ 350° C FOR SRP

MARKINGS EXAMPLE

BRAND---------- **KIYOSH 0428** ------DATE CODE
OHMIC VALUE -- **100E ±5 % 100W** -----WATTAGE
\----------TOLERANCE
TYPE ---------- **SRI-100 NI**----NON INDUCTIVE
CODE NO --------**50667**

DERATING

- **For Efficient And Long Life Operation, These Resistors Should Be Derated By More Than 50%.**
- **Operating Temperature Range -55 to +200°C.**
- **Derating Necessary For High Ambient Temperatures As Shown In Graph2**



ELECTRICAL SPECIFICATIONS | **DIMENSIONS in mm**

FLAME PROOF SERIES

WATTS AT 40ºC	TYPE DESIGNATION	RESISTANCE RANGE	L ± 3	D ± 1	d min	D+C max	W ±1	h ±3	k min
5	SRI 5	0.1Ω - 5K	30	8	4	10	4	8	2
10	SRI 10	0.1Ω - 10K	40	12	7	15	5	10	2
12	SRI 12	0.1Ω - 12K	50	12	7	15	5	10	5
15	SRI 15	0.1Ω - 15K	63	12	7	15	5	10	5
20	SRI 20	0.1Ω - 27K	63	16	8	19	6	15	6
25	SRI 25	0.1Ω - 33K	75	16	8	19	6	15	6
30	SRI 30	0.1Ω - 47K	100	16	8	19	6	15	6
40	SRI 40	0.1Ω - 56K	100	19	12	22	6	15	6
50	SRI 50	0.1Ω - 68K	125	19	12	22	6	15	6

INDUSTRIAL GRADE SERIES

WATTS AT 40ºC	TYPE DESIGNATION	RESISTANCE RANGE	L ± 3	D ± 1	d min	D+C max	W ±1	h ±3	k min
75	SRI 75	0.1Ω - 100K	165	19	12	22	6	15	6
100	SRI 100	1Ω - 120K	150	30	19	33	8	20	8
120	SRI 120	1Ω - 130K	165	30	19	33	8	20	8
150	SRI 150	1Ω - 150K	200	30	19	33	8	20	8
200	SRI 200	1Ω - 200K	250	30	19	33	8	20	8
250	SRI 250	1Ω - 300K	300	30	19	33	8	20	8
300	SRI 300	1Ω - 300K	300	37	19	40	10	25	10
400	SRI 400	1Ω - 300K	300	45	32	50	10	25	10
500	SRI 500	1Ω - 300K	355	50	35	54	10	25	10
800	SRI 800	1Ω - 300K	555	50	35	54	10	25	10
1000	SRI 1000	1Ω - 300K	555	60	40	64	14	25	14

PROFESSIONAL GRADE SERIES (as per JSS 50402 and IS 8909 (PART III)-1978)

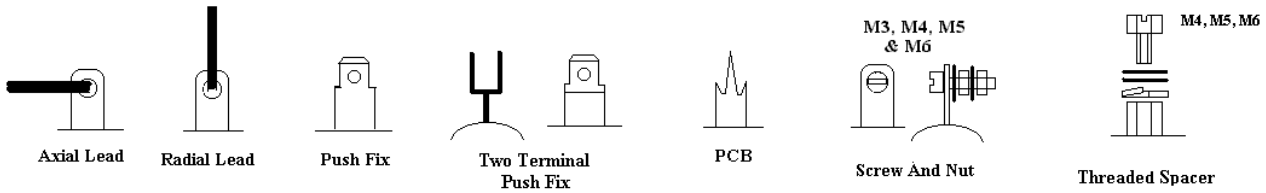
WATTS AT 70ºC	TYPE DESIGNATION	RESISTANCE RANGE	L ± 3	D ± 1	d min	D+C max	W ±1	h ±3	k min
10	SRP 10	0.1Ω - 5K	27	12	7	15	5	10	2
15	SRP 15	0.1Ω - 10K	40	12	7	15	5	10	2
25	SRP 25	0.1Ω - 15K	78	12	7	15	5	10	5
50	SRP 50	0.1Ω - 68K	102	25	14	29	8	15	8
100	SRP 100	1Ω - 120K	150	28	19	33	8	20	8
140	SRP 140	1Ω - 150K	200	30	19	33	8	20	8
180	SRP 180	1Ω - 200K	250	30	19	33	8	20	8

- The resistors with wattage and dimensions other than specified above can also be supplied.
- Lower as well as higher values than specified can also be supplied.
- Different types of load banks can also be designed as per the specifications required by the customer.
- A window can be provided on the resistor. A movable tag can be provided on the window so that the user can vary the resistance as desired.
- Non-inductive resistors can be manufactured on request, for use in high frequency circuits.
- Non-inductive resistances can be manufactured using Aryton-Perry type winding and Reverse Pi type winding.
- In addition to fixed type and adjustable type, fixed tapped resistors are also available for use as voltage dividers.
- Different terminals can be provided on the same ceramic core with different resistance values that act as separate resistors.
- The creepage distance, (k), for Professional Grade Series, as specified by **JSS 54042** is 1.59mm. Using a ceramic/mica washer for mounting can increase the creepage.

RECOMMENDATIONS FOR USE

MEASUREMENT	**:**	For low ohmic values, 4-wire measurement is recommended.
MOUNTING	**:**	(a) For horizontal mountings, (1) "L" shape brackets with stud nuts and washers available for all sizes. (2) "Z" shape brackets available for 100W to 250W. (b) For vertical mounting "Ω" shape brackets with stud nuts and washers available.
CABINET MOUNTING	**:**	(a) Unventilated box: Dissipation should be reduced using Graph 2. (b) Forced ventilation: If conditions are appropriate, dissipation can be doubled.
GROUP MOUNTING	**:**	In a still atmosphere a distance between axes should be equal to five to six times the resistor diameter.
GENERAL CONDITION	**:**	In any case the surface temperature at the hottest point should not exceed 275° c.
OVERLOAD	**:**	Heavy overloads can be endured in the form of short pulses for less than 0.1 seconds. Particular cases must be submitted to ***KIYOSH***, specifying peak voltage, cycle, and environmental conditions.
ADJUSTABLE	**:**	1. Very high values of resistance are not recommended for the adjustable type. 2. To move the adjustable band, the following steps must be followed. • Turn off the current in order to avoid operator injury and damage to the unit. • Loosen the band until it slides freely without touching the exposed wire in the window provided on the resistance. • Once the desired resistance has been achieved, tighten the band only slightly so as to get a firm contact on the wire. Tightening the band beyond this point may cause damage to the resistance. 3. Overloading to any section of the resistor can be avoided by not exceeding the maximum rated current. 4. The wattage rating as shown can be applied only when the entire resistance is connected. 5. The wattage rating on the resistor is directly proportional to the length of the resistor used.

Different types of terminals that can be provided on the resistor are shown below



Tel. No (+91-22) 66951951-52-53

.Revised as on 25/06/2021

KIYOSH ELECTRONICS

114, VEENA DALVAI INDUSTRIAL ESTATE, S. V. ROAD
JOGESHWARI (WEST), MUMBAI-400102
WEBSITE- www.kiyosh.in , e-mail- kiyosh@kiyosh.in