

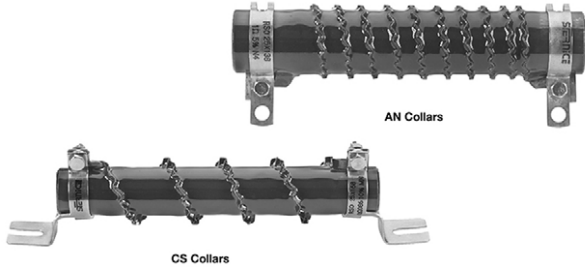
Wirewound Resistor, Industrial High Power, Enamelled Corrugated Tape, Tubular

FEATURES

- 160 W to 1 kW at 25 °C
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912



RoHS COMPLIANT



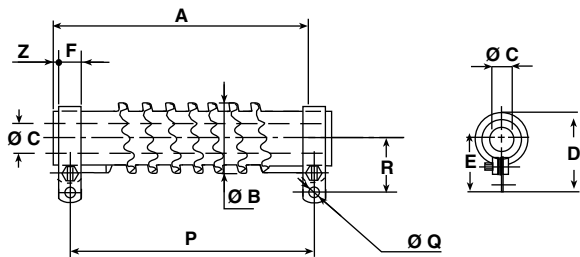
The remarkable dissipation power of this series is the result of an original winding method using corrugated edge-wound tape, thus forming a very active radiator. The enameling follows the contour of the resistive element and provides effective insulation and support for the winding.

The tubular core is of special ceramic, capable of withstanding high thermal shock and overload of short duration.

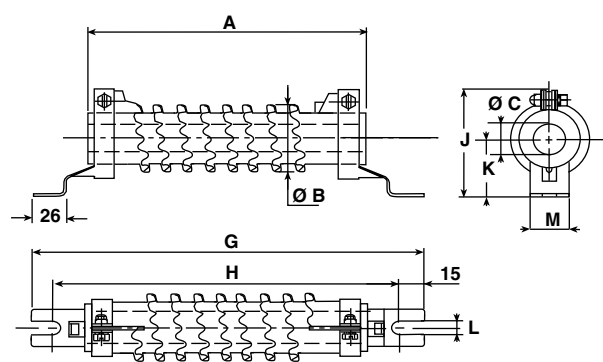
NF F 16101, 10/1988 and 16102, 04/1992: Not applicable (our parts are made of metallic and refractory materials).

DIMENSIONS in millimeters

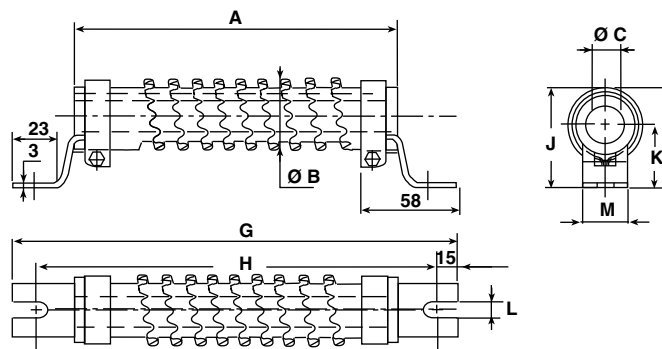
SCREWED STAINLESS STEEL 304 I "AN" TYPE 1



SCREWED STAINLESS STEEL 304 I "CS" TYPE 1



SCREWED STAINLESS STEEL 304 I "CS" TYPE 2





DIMENSIONS in millimeters											
RSO SERIES	CONNECTIONS		A ± 2	Ø B MAX.	Ø C MIN.	D MAX.	E	F + 0.5 / + 0	G - 4 / + 0	H - 4 / + 0	J
25 x 168	AN type 1	CS type 1	168	39	12.6	54	33.5 ± 1	9	229	199	50 ± 1.5
30 x 250	AN type 1	CS type 1	250	44	17.4	62	36 ± 1	13	317	287	60 ± 1.5
40 x 370	AN type 2	CS type 2	370	54.5	22.3	85.5	57 ± 1.5	18	432	405	73.8
50 x 373	AN type 2	CS type 2	373	65	27.1	97	63 ± 1.5	18	432	405	79
RSO SERIES	CONNECTIONS		K	L + 0.5	M ± 0.5	P	Q	R	Z	AVERAGE UNIT WEIGHT IN g	
										AN	CS
25 x 138	AN type 1	CS type 1	27 ± 1	6.5	24	117 ± 2	5.7	28.5 ± 1	6	160	205
25 x 168	AN type 1	CS type 1	27 ± 1	6.5	24	147 ± 2	5.7	28.5 ± 1	6	190	235
30 x 250	AN type 1	CS type 1	30 ± 1	9	25	227 ± 2.5	5.7	31 ± 1	5	350	400
40 x 370	AN type 2	CS type 2	45 ± 1.5	9	30	332 ± 3	9.2	45 ± 1.5	10	960	1040
50 x 373	AN type 2	CS type 2	45 ± 1.5	9	30	332 ± 3	9.2	51 ± 1.5	11.5	1375	1455

STANDARD ELECTRICAL SPECIFICATIONS				
MODEL	SIZE	RESISTANCE RANGE Ω	RATED POWER $P_{25^{\circ}\text{C}}$ W	TOLERANCE ± %
RSO 25 x 138	25138	0.068 to 12	160	10
RSO 25 x 168	25168	0.10 to 18	200	10
RSO 30 x 250	30250	0.22 to 33	350	10
RSO 40 x 370	40370	0.33 to 56	700	10
RSO 50 x 373	50373	0.39 to 68	1000	10

MECHANICAL SPECIFICATIONS	
Mechanical Protection	Enamel
Resistive Element	Ni-Cr wire
Connections	AN CS supporting collars
Average Unit Weight	160 g to 1455 g

TECHNICAL SPECIFICATIONS	
Resistance Range	0.068 Ω to 68 Ω (E12 preferred series)
Standard Resistance Tolerance	$R_n \geq 1 \Omega \pm 5 \%$ $R_n < 1 \Omega \pm 10 \%$
Power Rating	160 W to 1 kW at 25 °C

ENVIRONMENTAL SPECIFICATIONS	
Temperature Range	-55 °C, +450 °C
Climatic Category	-55 °C / +200 °C / 56 days

PERFORMANCE			
TESTS	CONDITIONS	REQUIREMENTS	TYPICAL VALUES AND DRIFTS
Short Time Overload	10 P_r during 5 s	2 % or 0.05 Ω	1 %
Thermal Shock	Load at P_r followed by cold temp. exposure at -55 °C / 15 s	2 % or 0.05 Ω	1 %
Climatic Sequence	Phase A: +200° Phase C: -55° Phase D: 5 cycles	3 % or 0.05 Ω	1 %
Load Life	90' / 30' cycle 1000 h at P_r 25 °C	5 %	2 %

RECOMMENDATIONS FOR USE

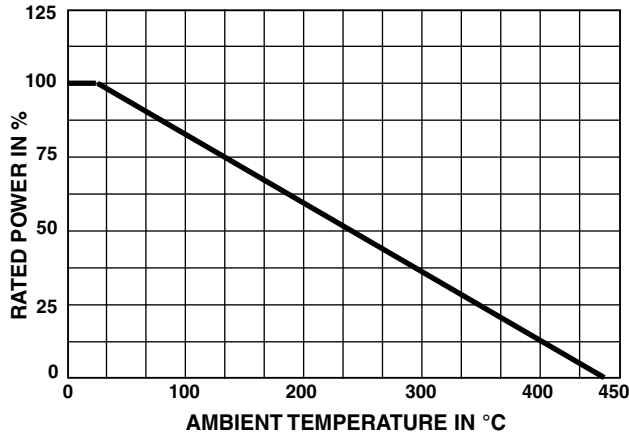
OVERLOAD:

The RSO resistors are capable of withstanding overloads of about 10 P_r for a maximum period of 5 s; they can resist momentarily even greater overloads.

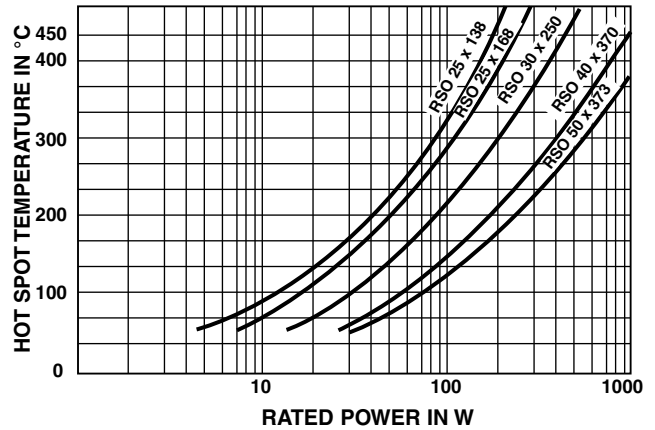
Particular requirements should be submitted to Vishay Sfernice.



POWER RATING



TEMPERATURE RISE



MARKING

Vishay Sfernice trademark, model, style, nominal resistance (in Ω), tolerance (in %), manufacturing date.

PACKAGING

Box: Fixed quantity depending on size and collars

ORDERING INFORMATION

RSO	25 x 168	XXX	CS	U82	± 10 %	B02NA	e
MODEL	STYLE	SPECIAL DESIGN	CONNECTIONS	OHMIC VALUE	TOLERANCE	PACKAGING	LEAD (Pb)-FREE
		Method N° Optional		Custom items are subject to extra-charge and min. order. Please see price list.			

SAP PART NUMBERING GUIDELINES

RSO	25168	C	R820	K	N
MODEL	STYLE	CONNECTIONS	OHMIC VALUE	TOLERANCE	PACKAGING

RELATED DOCUMENTS

APPLICATION NOTES

Packaging Information	www.vishay.com/doc?50033
Accessories	www.vishay.com/doc?50021



Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Vishay:](#)

[RSO50373C10R0JB01](#) [RSO50373CR470KB01](#) [RSO25138CR330KB00](#) [RSO25168CR220KB00](#)
[RSO30250A10R0JB00](#) [RSO25168C1R00JB04](#) [RSO30250AR910KB00](#) [RSO30250A1R00JB00](#)
[RSO50373CR390KB01](#) [RSO50373CR560KB01](#) [RSO25138A1R00JB00](#)