

Fixed Wirewound Enamelled Corrugated Tape Resistors Very High Dissipation

AN Collars

CS Collars

FEATURES

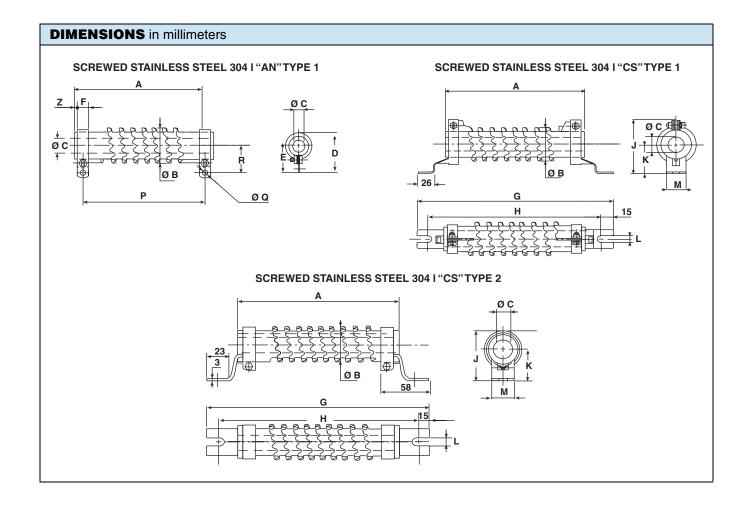
- 160 W to 1 kW at 25 °C
- Compliant to RoHS directive 2002/95/EC



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 enamelling 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).



Document Number: 50018 Revision: 09-Jul-09

Vishay Sfernice

Fixed Wirewound Enamelled Corrugated Tape Resistors Very High Dissipation



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 138	AN type 1	CS type 1	138	39	12.6	54	33.5 ± 1	9	199	169	50 ± 1.5
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	L + 0.5	M ± 0.5	Р	Q	R	Z	AVERAGE UNIT WEIGHT IN g	
SEMILS										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

MECHANICAL SPECIFICATIONS

Mechanical Protection Resistive Element Ni-Cr wire

Connections AN CS supporting collars

Average Unit Weight 160 to 1455 g

ENVIRONMENTAL SPECIFICATIONS

Temperature Limits - 55 °C + 450 °C **Climatic Category**

- 55 °C/+ 200 °C/56 days

ELECTRICAL SPECIFICATIONS						
Resistance Range	0.068 Ω to 68 Ω (E12 preferred series)					
Standard Resistance Tolerance	$R_{\rm n} \ge 1 \ \Omega \pm 5 \ \%$ $R_{\rm n} < 1 \ \Omega \pm 10 \ \%$					
Power Rating	160 W to 1 kW at 25 °C					
Temperature Coefficient	180 ppm/°C (typical)					

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 %				

SPECIAL FEATURES								
RSO STYLE	25 x 138	25 x 168	30 x 250	40 x 370	50 x 373			
Power Rating at 25 °C	160 W	200 W	350 W	700 W	1000 W			
Resistance Ohmic Range	0.068Ω	0.10 Ω	0.22 Ω	0.33 Ω	0.39 Ω			
(E12 Series)	12 Ω	18 Ω	33 Ω	56 Ω	68 Ω			

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.

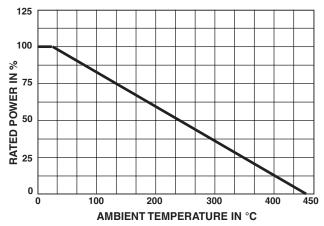
Document Number: 50018 Revision: 09-Jul-09



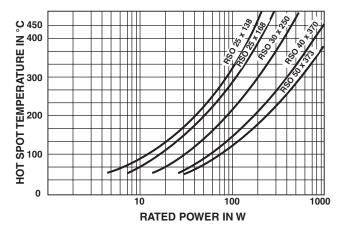
Fixed Wirewound Enamelled Corrugated Tape Resistors Very High Dissipation

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	е			
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	С	R820	Κ	N				
MODEL	STYLE	CONNECTIONS	OHMIC VALUE	TOLERANCE	PACKAGING				

Document Number: 50018 Revision: 09-Jul-09

Legal Disclaimer Notice



Vishay

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 and agree to fully indemnify and hold Vishay and its distributors harmless from and against any and all claims, liabilities, expenses and damages arising or resulting in connection with such use or sale, including attorneys fees, even if such claim alleges that Vishay or its distributor was negligent regarding the design or manufacture of the part. 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.

Document Number: 91000 www.vishay.com
Revision: 11-Mar-11 1