

Fixed Wirewound High Power Vitreous Resistors with Terminal Collars or Bands



FEATURES

- 10 W to 80 W at 25 °C
- NF C 93-214
- RB 13 x 70 RB 20 x 117
- High power up to 80 W at 25 °C
- High long term stability drift < 2.5 % after 5000 h
- Great mechanical strength
- Fire proof
- Environmental performance
- Thermal shock strength 0.5 % (100 % h at - 25 °C)
- Compliant to RoHS directive 2002/95/EC



RoHS
COMPLIANT

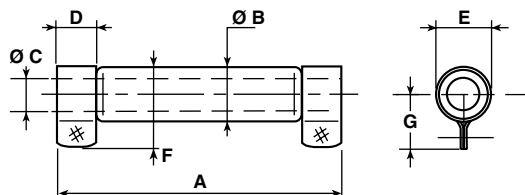
The RW wirewound power resistors are extremely well suited to professional applications, where high power and excellent endurance are required. They meet all requirements of NF C 93-214 specifications and five sizes cover the power range from 10 W to 80 W. Non inductive types are available, by using the special RWNI winding. For higher power or extremely severe conditions of use, see the RWST series.

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

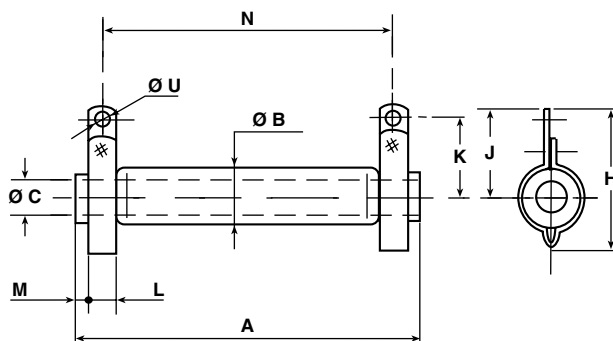
NF C 93-214. Performances according to NF C 93-214.

DIMENSIONS in millimeters

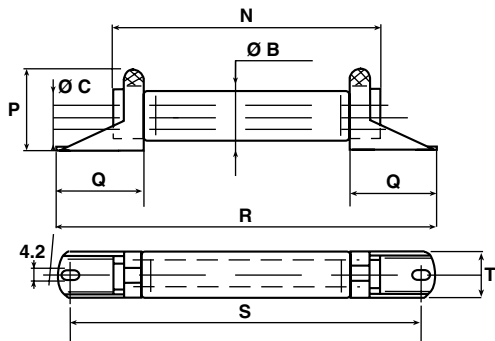
WELDED STAINLESS STEEL 304 L BAND "B"



WELDED STAINLESS STEEL 304 L COLLARS "AN"

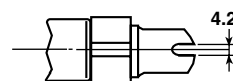


WELDED STAINLESS STEEL 304 L COLLARS "CR"



RW STYLE	8 x 34	10 x 50	13 x 70	16 x 94	20 x 117
CONNECTIONS	Collar	AN	AN	AN	AN
	Collar	-	CR	-	-
	Collar	-	-	CS	-
	Band	-	B	B	B
A ± 2	34	50	70	94	117
Ø B max.	11.5	13	16	19.5	23
Ø C min.	4.1	5	5	9	9
D + 0.5 + 0	-	8	10.5	12	14
E	-	11 ± 0.5	14 ± 0.5	17.5 ± 0.5	21 ± 0.7
F max.	-	21	24.5	28	33
G	-	14 ± 0.5	16 ± 0.5	18 ± 0.5	21 ± 0.7
H	28 ± 1.0	31 ± 1.0	34 ± 1.0	38 ± 1.0	42 ± 1.5
J	19.5 ± 0.5	22 ± 0.5	24 ± 0.5	25 ± 0.5	28 ± 0.7
K	16 ± 0.5	18 ± 0.5	20 ± 0.5	21 ± 0.5	24 ± 0.7
L + 0.5 + 0	5	6.35	0.6	0.6	0.8
M ± 1.5	1	1.5	3.5	4	6
N ± 2	27	40	56	78	98
P ± 1	-	19.5	22.5	-	-
Q ± 0.5	-	19.5	20.5	-	-
R ± 2	-	72	91	-	-
S ± 2	-	62	81	-	-
T	-	12	15	-	-
Ø U	3.2	4.2	4.2	4.2	4.2

WELDED STAINLESS STEEL 304L COLLARS "CS"





Fixed Wirewound High Power Vitreous Resistors with Terminal Collars or Bands

Vishay Sfernice

MECHANICAL SPECIFICATIONS

Mechanical Protection	Enamel
Resistive Element	Ni-Cr wire
Connections	B band
	AN - CR - CS collars
Average Unit Weight	10 g to 100 g

ENVIRONMENTAL SPECIFICATIONS

Temperature Limits	- 55 °C + 450 °C
Climatic Category	- 55 °C/+ 200 °C/56 days

ELECTRICAL SPECIFICATIONS

Resistance Range	1 Ω to 68 k Ω (E12 preferred series value)
Resistance Tolerances Standard	$\pm 5 \%$
Power Rating	10 W to 80 W at 25 °C
Temperature Coefficient	75 ppm/°C (typical)
Dielectric Strength	1000 V _{RMS} (AN collars)
Insulation Resistance	100 M Ω (500 V _{DC}) AN collars
Shelf Life	0.1 % year (typical)

PERFORMANCE

TESTS	CONDITIONS	REQUIREMENTS	TYPICAL VALUES AND DRIFTS
Short Time Overload	10 Pr during 5 s Voltage limited at < 5000 V current limited at 5 A	2 % or 0.05 Ω	0.5 %
Climatic Sequence	- 55 °C + 200 °C 5 cycles	3 % or 0.05 Ω Insulation resistance > 100 M Ω	0.5 %
Humidity (Steady State)	56 days 95 % relative humidity	2 % or 0.05 Ω Insulation resistance > 100 M Ω	0.5 %
Thermal Shock	Load at 100 % Pr followed by cold temp. exposure at - 55 °C	2 % or 0.05 Ω	0.5 %
Shock	Severity 50 9 shocks/each side	1 % or 0.05 Ω	0.25 %
Vibration	Severity 55B	1 % or 0.05 Ω	0.25 %
Terminal Strength	Collar AN Traction 40 N Band B Torque 60 Ncm	1 % or 0.05 Ω	0.5 %
Load Life	90'/30' cycle 1000 h at Pr 25 °C	5 %	1000 h 1.5 %
			5000 h 2.5 %

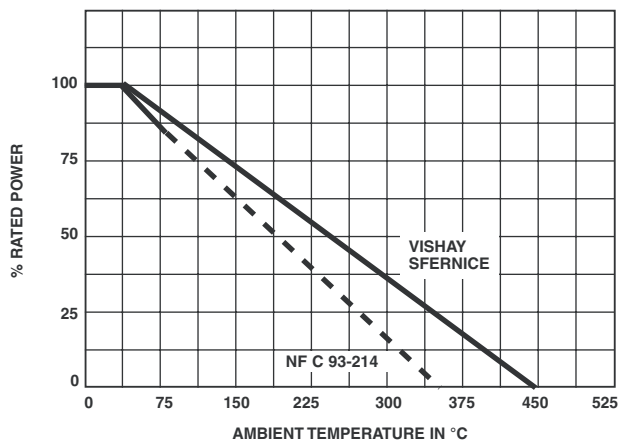
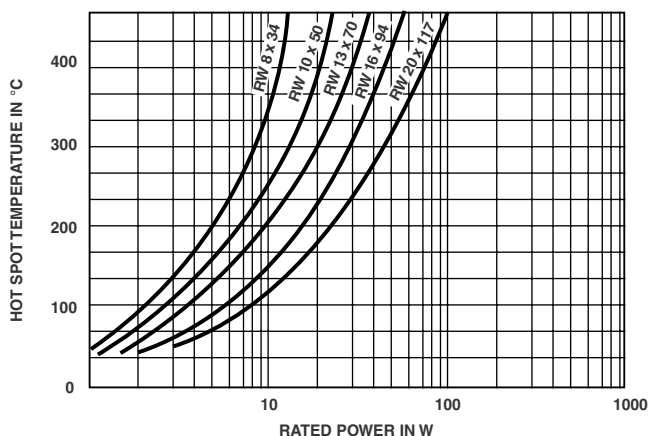
SPECIAL FEATURES

RW STYLE	8 x 34	10 x 50	13 x 70	16 x 94	20 x 117
Designation NF C 93-214	-	-	RB 13 x 70	-	RB 20 x 117
Power Rating at 25 °C	10 W	17 W	28 W	44 W	72 W
Maximum Power Rating at 25 °C	13 W	20 W	32 W	50 W	80 W
Ohmic Range (E12, E24 series)	1 Ω 10 k Ω	1 Ω 27 k Ω	2.2 Ω 56 k Ω	2.2 Ω 56 k Ω	2.7 Ω 68 k Ω
Limiting Element Voltage	300 V	450 V	650 V	900 V	1100 V
Critical Resistance	6.9 k Ω	10 k Ω	13.2 k Ω	16 k Ω	15.1 k Ω

NON INDUCTIVE WINDING

For high frequencies, low self induction resistors are available with special windings.
RWNl designation.

MODEL AND STYLE	RWNl 8 x 34	RWNl 10 x 50	RWNl 13 x 70	RWNl 16 x 94	RWNl 20 x 117
Ohmic Range	4.7 Ω 100 Ω	4.7 Ω 220 Ω	4.7 Ω 620 Ω	10 Ω 1.2 k Ω	10 Ω 2.2 k Ω

POWER RATING CHART**TEMPERATURE RISE****MARKING**

SFERNICE trademark, model, style, NF style (if applicable) nominal resistance (in Ω), tolerance (in %), manufacturing date.

ORDERING INFORMATION

RW	20 x 117	NI	AN	68 Ω	$\pm 5\%$	B020	e
MODEL	STYLE	NON-INDUCTIVE WINDING	SPECIAL DESIGN	CONNECTIONS	OHMIC VALUE	TOLERANCE	PACKAGING
		Optional	Optional		Custom items are subject to extra-charge and min. order. Please see price list.		LEAD (Pb)-FREE



GLOBAL PART NUMBER INFORMATION

R	W	1	6	X	9	4	A		2	0	3	J	B	0	0			
GLOBAL MODEL	SIZE	LEADS	OPTION	OHMIC VALUE				TOLERANCE	PACKAGING	SPECIAL								
RW	8X34 10X50 13X70 16X94 20117	A = AN B = B C = CS D = CR	N = Non inductive winding	The first two digits are significant figures and the last digit specifies the number of zeros to follow. R designates decimal point. 203 = 20 kΩ 471 = 470 Ω 48R = 48.7 Ω R01 = 0.01 Ω				J = 5.0 %	Box: BA25 BA25NA BO20 BO20NA BO30 BO30NA BO40 BO40NA BO50 BO50NA	As applicable. Example: BC1								



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