FAIRFILD

Wirewound resistor coated with vitreous enamel

Description
Tubolar ceramic support, Designed for severe environment condition

Mechanical characteristics
IP00, Cylindrical shape

Applications
Harmonic filter, Neutral grounding, Charge/discharge capacitor, Heating

Market
Railways, Industrial automation, Energy

Special version
Ohmic values out of range, Special tolerance on resistance (2%, 1%), Screw terminal for traction, Low inductance, Adjustable version, Intermediate grip

Active materials
Depending on the ohmic value the used alloy may be NiCr or CuNi44

RS

CE RoHS COMPLIANT Pb Pb-Free

15 W ÷ 300 W

ELECTRICAL CHARACTERISTICS

refers to room temperature 25°C

ID	Rated Power	Min resistance	Max resistance	Min res.not-inductive version	Max res.not-inductive version	Max resistance for traction	Limit Voltage
Unit	W	Ω	Ω	Ω	Ω	Ω	V
RS 15	15	1,6	6k2	6,2	1k6	1k5	500
RS 25	25	3,6	15k	13	3k6	4k3	700
RS 50	50	6,8	27k	27	6k8	7k5	1000
RS 60	60	6,2	36k	24	9k1	9k1	1200
RS 90	90	11	62k	43	16k	15k	1500
RS 110	110	13	75k	51	20k	20k	1800
RS 160	160	20	91k	82	30k	30k	2500
RS 220	220	27	91k	110	43k	51k	3000
RS 260	260	36	91k	130	51k	56k	3000
RS 300	300	39	91k	160	62k	68k	3000

Insulation resistance 500 VDC	≥100 MΩ	Temp. Coefficient Resistance	40÷240 10^{-6}/°C
Max Overload 10" / 5"	5xP_r / 10xP_r	Dielectric strength 50Hz; 60"	1000 V

TEST	Conditions	Requirements	Tipycal value and drifts
Short time overload	10 Pr during 5 sec. Max Voltage 6.000 V or 2.5 times the limit voltage	2% ±0,05 ohm	0,5%
Climatic sequence	-55°C+200°C 5 Cycles MIL STD 202 Test 107 D	3%±0,05 ohm Insulation Resistance>100MΩ	0,5%
Humidity (steady state)	56 Days at 95% RH	2% Insulation Resistance>100MΩ	0,5%
Moisture	10 Cicles 55°C -10°C Rel umidity 95% ÷ 100% MIL STD 202 Test 106 D	2% Insulation Resistance 100MΩ	0,5%
Load life	Cycle 90° on – 30° off 1.000 h a Pr and 25°C	5%	1,5%
Salt spray	Procedure MIL STD 202 Test 101 D	No Pollutions or corrosion	OK
Terminals strenght	Traction 40 N Torque 60 Ncm	Resistance 1%±0,05 ohm	<0,2%

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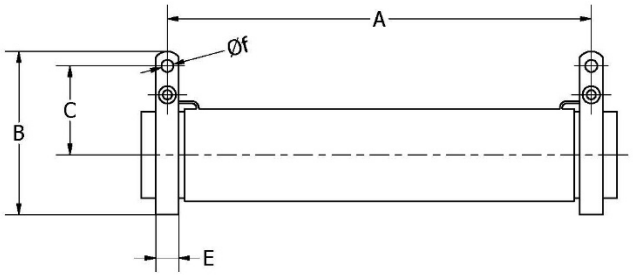
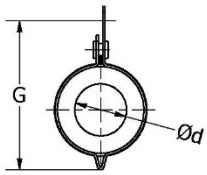
MECHANICAL DATA TC TERMINALS

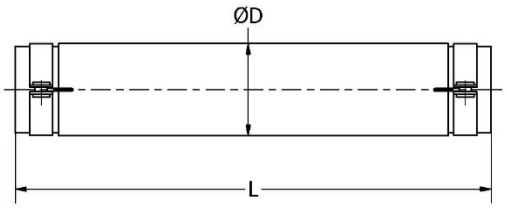
Dimensions [mm]	A	B	C	D	d	E	f	G	L	Brackets	Weight (g)
RS 15	36	29,7	16,3	10	4,5	6	3,2	26,3	45	SC-SQ 10	13
RS 25	53	33	17,8	13	7	6	3,2	29,5	64	SC -SQ 13	20
RS 50	80	38,1	20,8	16	9,5	6	3,2	35	90	SC -SQ 16/20	45
RS 60	82	46,2	25,8	20	9,5	8	4,2	41,3	100	SC-SQ 16/20	75
RS 90	112	49,3	27,3	23	13	8	4,2	44,4	130	SC -SQ 23	115
RS 110	147	46,2	25,8	20	9,5	8	4,2	41,3	165	SC-SQ 16/20	135
RS 160	147	56,4	30,8	30	18	8	4,2	51,5	165	SC-SQ 30	210
RS 220	202	56,4	30,8	30	18	8	4,2	51,5	220	SC-SQ 30	260
RS 260	247	56,4	30,8	30	18	8	4,2	51,5	265	SC-SQ 30	360
RS 300	282	56,4	30,8	30	18	8	4,2	51,5	300	SC-SQ 30	410

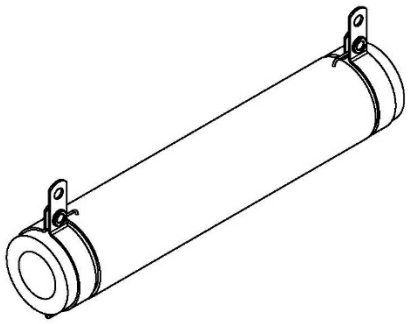
DRAWING (TC TERMINALS)

Unless otherwise specified, applicable standard of general tolerances for linear and angular dimensions is ISO 2768-1 class c; applicable standard for ceramic parts is DIN 40680-1 (general dimension) class g and DIN 40680-22 (shape) class g.

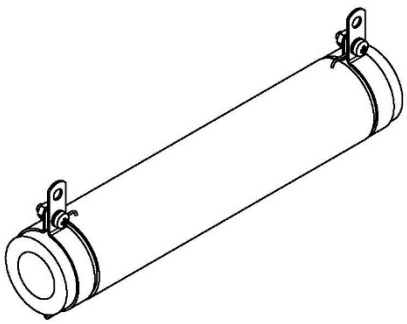


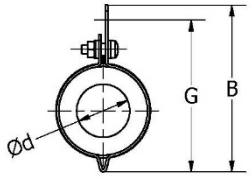






TRACTION (VERSION WITH SCREW)





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MECHANICAL DATA TF TERMINALS

Dimensions [mm]	Lf	Bf	D	Ef	Brackets	Weight [g]
RS 15	54	22	10	10	SM 10	13
RS 25	75	26	13	12	SM 13	20
RS 50	100	30	16	15	SM 16	45
RS 60	112	36	20	20	SM 20/23	75
RS 90	140	39	23	20	SM 20/23	115
RS 110	177	36	20	20	SM 20/23	135
RS 160	177	46	30	20	SM 30	210
RS 220	232	46	30	20	SM 30	260
RS 260	277	46	30	20	SM 30	360
RS 300	312	46	30	20	SM 30	410

DRAWING (TF TERMINALS)

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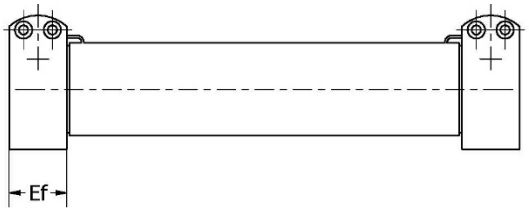
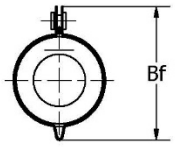
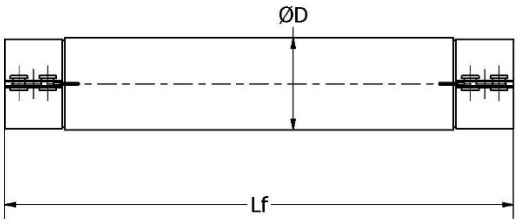
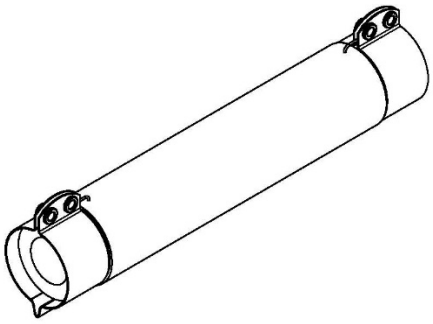




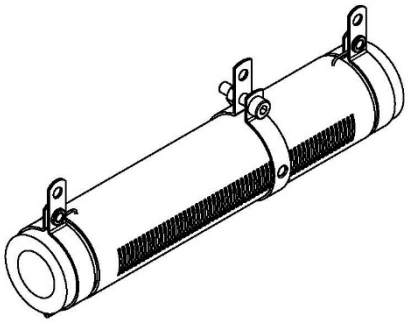


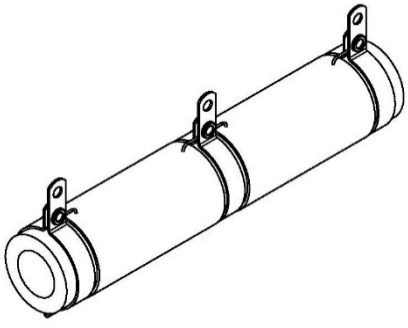


ADJUSTABLE VERSION (TC TERMINALS)

INTERMEDIATE GRIP (TC TERMINALS)

Adjustable version and intermediate grip are available also for TF terminals





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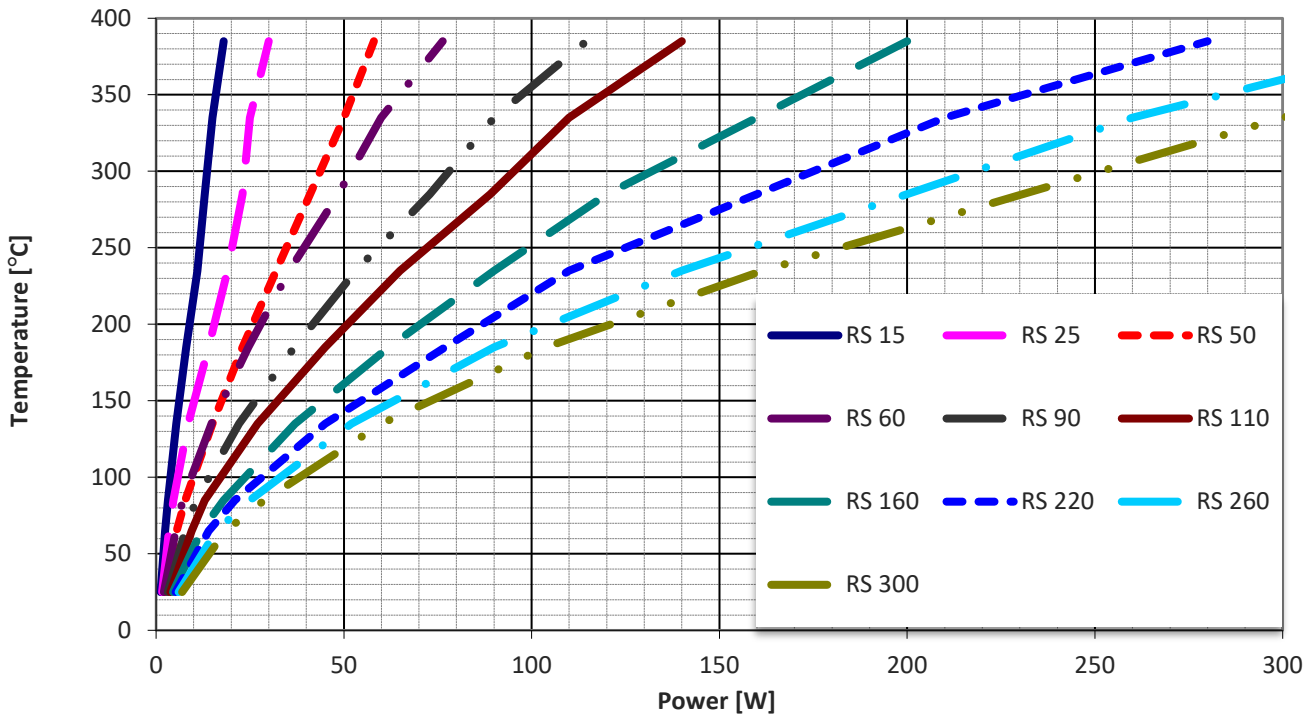
SURFACE TEMPERATURE CHARACTERISTICS



Except where stated otherwise, Rated power is given at 20 °C ambient temperature. The maximum power that can be dissipated decreases with the increase of ambient temperature. Derating drops to zero at 350°C ambient temperature from nominal rating at 25%.

Marking

The resistor is marked on the collar with indelible ink high temperature
FAIRFILD RS/R 25 150R 5% TC WW/YY (week / year)

Packing

The resistor is packed in a way to preserve incidental damages due to transport. The resistor is made by ceramic parts, accidental fall can damage it, handle with care.

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Ordering information

RS/Y XXX RRRR 5% ZZ

Y N : not inductive version
R : adjustable version
P : intermediate grip
T : traction version

XXX Model / Rated power i.e. 25 : 25 W

RRRR Resistance value (nominal at 20°C)

ZZ TC collar with terminal for screw
TF collar for mounting support type SM

Example
RS/R 25 150R 5% TC
RS is the name of the product
R means the adjustable version
25 is the model that corresponds, for RS family, to the rated power, in this case 25 W
150R means 150 Ω that is the nominal ohmic value at 20°C
5% is the tolerance on the ohmic value, in this case the value of the resistor is accepted when is within 142.5 Ω ÷ 157.5 Ω

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