Wirewound Resistors, Industrial Power, Silicone Coated, Fixed Edgewound Tubular

FEATURES

- High temperature silicone coating
- Complete welded construction
- Excellent stability in operation (< 3 % change in resistance)
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912

Pb-free

RoHS COMPLIANT

HALOGEN FREE

GREEN (5-2008)

STANDARD ELECTRICAL SPECIFICATIONS

GLOBAL MODEL	HISTORICAL MODEL	POWER RATING $P_{25\,°C}$ W	RESISTANCE RANGE Ω ± 5 %	RESISTANCE RANGE Ω ± 10 %	WEIGHT (typical) g
FSE0050	FSE-50	50	1 to 4.1	0.1 to 4.1	18
FSE0090	FSE-90	90	1 to 14.1	0.1 to 14.1	36
FSE0100	FSE-100	100	1 to 12.2	0.1 to 12.2	41
FSE0110	FSE-110	110	1 to 15.4	0.1 to 15.4	49
FSE0120	FSE-120	120	1 to 18.4	0.1 to 18.4	54
FSE0155	FSE-155	155	1 to 22.4	0.1 to 22.4	129
FSE0240	FSE-240	240	1 to 44.75	0.1 to 44.75	186
FSE0300	FSE-300	300	1 to 62.5	0.1 to 62.5	236
FSE0375	FSE-375	375	1 to 80.5	0.1 to 80.5	286
FSE0420	FSE-420	420	1 to 92	0.1 to 92	320
FSE0500	FSE-500	500	1 to 121	0.1 to 121	381
FSE0750	FSE-750	750	1 to 83	0.1 to 83	654
FSE1000	FSE-1000	1000	1 to 108.5	0.1 to 108.5	817
FSE1500	FSE-1500	1500	1 to 151	0.1 to 151	1090

GLOBAL PART NUMBER INFORMATION

Global Part Numbering example: FSE050021E15R0JE (visit www.vishay.net Vishay Dale parts numbering manual for all options)

F	S	E	0	5	0	0	2	1	E	1	5	R	0	J	E		

GLOBAL MODEL (7 digits)	TERMINAL DESIGNATION (2 digits)	TERMINAL FINISH (1 digit)	VALUE (4 digits)	TOLERANCE (1 digit)	PACKAGING CODE (1 digit)	SPECIAL (up to 2 digits)
(See Standard Electrical Specifications Global Model column for options)	**06** **15** **20** **21** **22**	**E** = Lead (Pb)-free	**R** = Decimal **1R50** = 1.5 Ω	**J** = ± 5 % **K** = ± 10 %	**E** = E01 = Lead (Pb)-free skin pack	(Dash number) From **1** to **99** as applicable **91** = 100 style BKT **92** = 200 style BKT **93** = 300 style BKT

Historical Part Number example: FSE-500-15-5 %

FSE-500	15 Ω	5 %	
HISTORICAL MODEL	RESISTANCE VALUE	TOLERANCE	SPECIAL

For technical questions, contact: ww2dresistors@vishay.com

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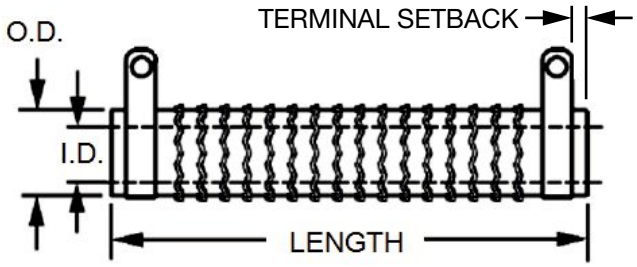
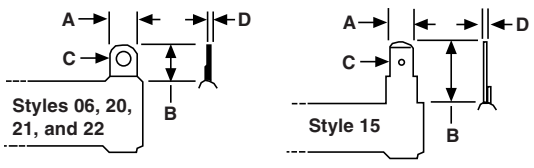
DIMENSIONS in inches [millimeters]



MODEL	DIMENSIONS in inches [millimeters]							
	CORE DIMENSIONS			TERMINAL SETBACK	DISTANCE BETWEEN TERMINALS (REF.)	TERMINAL DESIGNATION		BRACKET TYPES
	LENGTH ± 0.062 [± 1.59]	O.D.	I.D. ± 0.031 [± 0.79]			STANDARD	OPTIONAL (QUICK CONNECT)	
FSE0050	2.000 [50.8]	0.750 [19.05]	0.500 [12.70]	0.086 [2.18]	1.328 [33.73]	06	15	101, 203, 301
FSE0090	4.000 [101.6]	0.563 [14.30]	0.313 [7.95]	0.094 [2.39]	3.312 [84.12]	06	15	101, 203, 301
FSE0100	3.500 [88.90]	0.750 [19.05]	0.500 [12.70]	0.079 [2.01]	2.842 [72.19]	06	15	102, 206, 303
FSE0110	4.000 [101.6]	0.750 [19.05]	0.500 [12.70]	0.125 [3.18]	3.250 [82.55]	06	15	102, 206, 303
FSE0120	4.500 [114.3]	0.750 [19.05]	0.547 [13.89]	0.125 [3.18]	3.750 [95.25]	06	15	102, 206, 303
FSE0155	4.500 [114.3]	1.125 [28.58]	0.750 [19.05]	0.282 [7.16]	3.436 [87.27]	20	15	103, 205, 303
FSE0240	6.500 [165.1]	1.125 [28.58]	0.750 [19.05]	0.250 [6.35]	5.376 [136.6]	20	15	103, 205, 303
FSE0300	8.500 [215.9]	1.125 [28.58]	0.750 [19.05]	0.267 [6.78]	7.342 [186.5]	20	15	103, 205, 303
FSE0375	10.500 [266.7]	1.125 [28.58]	0.750 [19.05]	0.266 [6.76]	9.344 [237.3]	20	15	103, 205, 303
FSE0420	11.375 [288.9]	1.125 [28.58]	0.750 [19.05]	0.266 [6.76]	10.219 [259.6]	20	15	103, 205, 303
FSE0500	10.500 [266.7]	1.625 [41.275]	1.125 [28.58]	0.266 [6.76]	8.968 [227.8]	21	-	-
FSE0750	12.000 [304.8]	2.500 [63.50]	1.750 [44.45]	0.508 [12.90]	3.436 [87.27]	22	-	-
FSE1000	15.000 [381.0]	2.500 [63.50]	1.750 [44.45]	0.508 [12.90]	5.376 [136.6]	22	-	-
FSE1500	20.000 [508.0]	2.500 [63.50]	1.750 [44.45]	0.508 [12.90]	7.342 [186.5]	22	-	-

TERMINAL DIMENSIONS



DIMENSIONS	TERMINAL STYLE				
	06	15	20	21	22
A	0.250 [6.35]	0.250 [6.35]	0.375 [9.53]	0.500 [12.70]	0.500 [12.70]
B	0.563 [14.29]	0.594 [15.08]	0.625 [15.88]	1.250 [31.75]	0.625 [15.88]
C (HOLE DIAMETER)	0.166 [4.22]	0.065 [1.65]	0.196 [4.98]	0.190 [4.82]	0.190 [4.82]
D	0.020 [0.51]	0.031 [0.79]	0.020 [0.51]	0.025 [0.64]	0.025 [0.64]

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MATERIAL SPECIFICATIONS

Element: Copper-nickel alloy or nickel-chrome alloy, depending on resistance value

Core: Ceramic, steatite

Coating: Special high temperature silicone

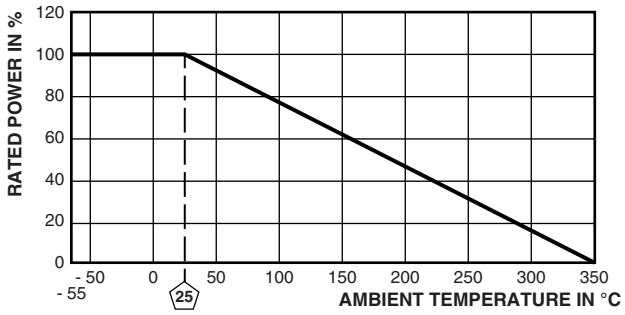
Standard Terminals: Tinned alloy 42

Optional Terminals (Quick Connect): Alloy 42

Terminal Bands: Alloy 42

Part Marking: HEI, model, wattage, value, tolerance, date code

DERATING



TECHNICAL SPECIFICATIONS		
PARAMETER	**UNIT**	**FSE RESISTOR CHARACTERISTICS**
Temperature Coefficient	ppm/°C	± 260 for 20 Ω and above, ± 400 for 1 Ω to 19.99 Ω, special TC's available please contact factory
Short Time Overload	-	10 x rated power for 5 s
Dielectric Withstand Voltage	V_{AC}	1000, from terminal to mounting hardware
Maximum Working Voltage	V	$(P \times R)^{1/2}$
Operating Temperature Range	°C	- 55 to + 350

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