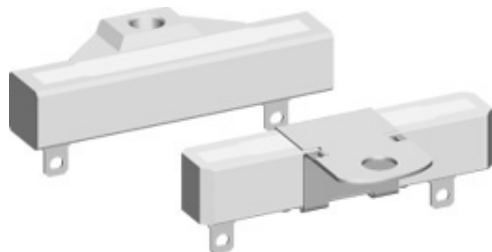




## Wirewound Resistors, Commercial High Power, Quick Connect Terminals



Please reference the Vishay Dale closest equivalent: PC Quick Connect ([www.vishay.com/doc?31826](http://www.vishay.com/doc?31826)).

### Notes

- There may be slight differences between the CP Quick Connect product and the PC Quick Connect product.
- See the cross-reference file for a complete list of differences and part number crosses:  
[www.vishay.net/files/Cross-Reference%20Data%20-%20PTN-DR-021-2015%20Rev%200.pdf](http://www.vishay.net/files/Cross-Reference%20Data%20-%20PTN-DR-021-2015%20Rev%200.pdf).

### FEATURES

- Can be purchased with or without brackets installed
- Quick connect terminals
- High power ratings
- Special inorganic potting compound and ceramic case provide high thermal conductivity in a fireproof package
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



**RoHS**  
COMPLIANT  
HALOGEN  
**FREE**  
**GREEN**  
(5-2008)

### APPLICATIONS

The CP resistors are suited for use in high ambient temperatures and also where ease of mounting and electrical connections are to be made with quick connect terminals. Model CP0050 is particularly recommended for automotive electronic ignition ballast, appliance and motor ballasts and two-speed fans.

STANDARD ELECTRICAL SPECIFICATIONS					
GLOBAL MODEL	HISTORICAL MODEL	POWER RATING $P_{40^\circ\text{C}}$ W	RESISTANCE RANGE $\Omega$	TOLERANCE $\pm \%$	WEIGHT (typical) g
CP015B	CP-15B	15	0.1 to 288	5, 10	21.5
CP020B	CP-20B	20	0.1 to 460	5, 10	27.5
CP026B <sup>(1)</sup>	CP-26B <sup>(1)</sup>	25	0.12 to 570	5, 10	44.0
CP26SM	CP-26SM	25	0.12 to 570	5, 10	56.9
CP050B <sup>(1)</sup>	CP-50B <sup>(1)</sup>	50	0.16 to 740	5, 10	90.0
CP050B...1 <sup>(1)</sup>	CP-50B-1 <sup>(1)</sup>	50	0.16 to 740	5, 10	90.0

### Note

<sup>(1)</sup> To order the CP026B, CP050B and CP050B...1 without brackets, remove the B from model number (CP0026, CP0050 and CP0050...1).

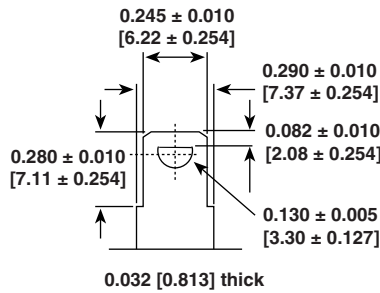
TECHNICAL SPECIFICATIONS		
PARAMETER	UNIT	CP QUICK CONNECT CHARACTERISTICS
Temperature Coefficient	ppm/°C	$\pm 300$ for 1.0 $\Omega$ and above; $\pm 600$ below 1.0 $\Omega$
Short Time Overload	-	10 x rated power for 5 s
Operating Temperature Range	°C	-65 to +275
Dielectric Withstanding Voltage	$V_{AC}$	1000
Maximum Working Voltage	V	$(P \times R)^{1/2}$

GLOBAL PART NUMBER INFORMATION				
Global Part Numbering example: CP050B15R00JB141				
C	P	0	5	0
B	1	5	R	0
0	0	J	B	1
4	1			
GLOBAL MODEL (see Standard Electrical Specifications Global Model column for options)	VALUE R = decimal K = thousand R1500 = 0.15 $\Omega$ 1K500 = 1500 $\Omega$	TOLERANCE H = $\pm 3.0 \%$ J = $\pm 5.0 \%$ K = $\pm 10.0 \%$	PACKAGING B14 = lead (Pb)-free, bulk B31 = lead (Pb)-free, four layer bulk	SPECIAL (dash number) (up to 3 digits) from 1 to 999 as applicable
Historical Part Numbering example: CP-50B-1 15 $\Omega$ 5 % B14				
CP-50B-1	15 $\Omega$	5 %	B14	
HISTORICAL MODEL	RESISTANCE VALUE	TOLERANCE CODE	PACKAGING	

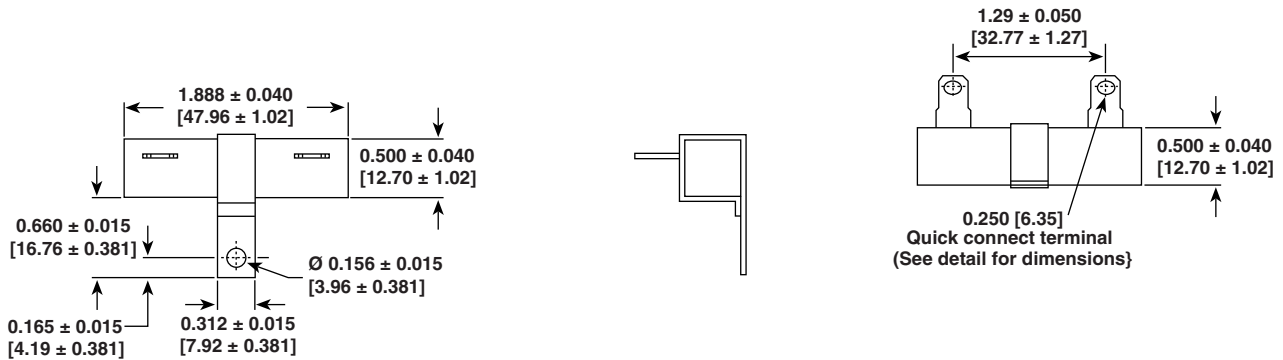


**DIMENSIONS** in inches [millimeters]

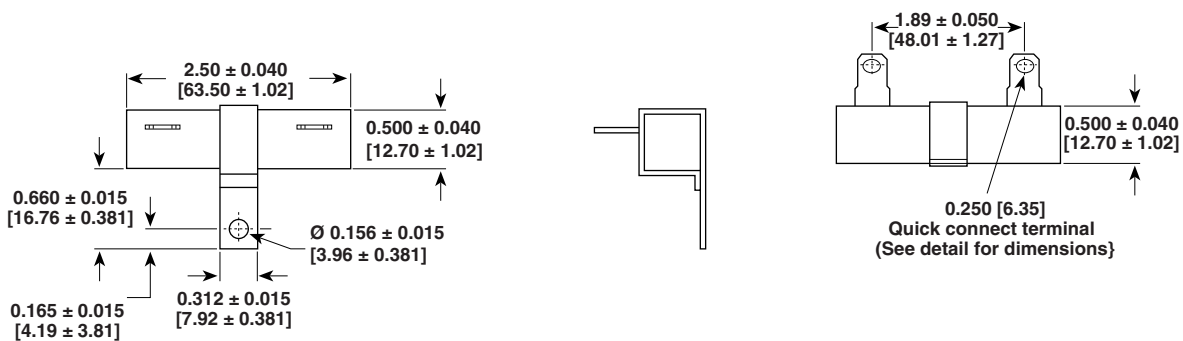
Quick connect terminal connections 0.250 [6.35]



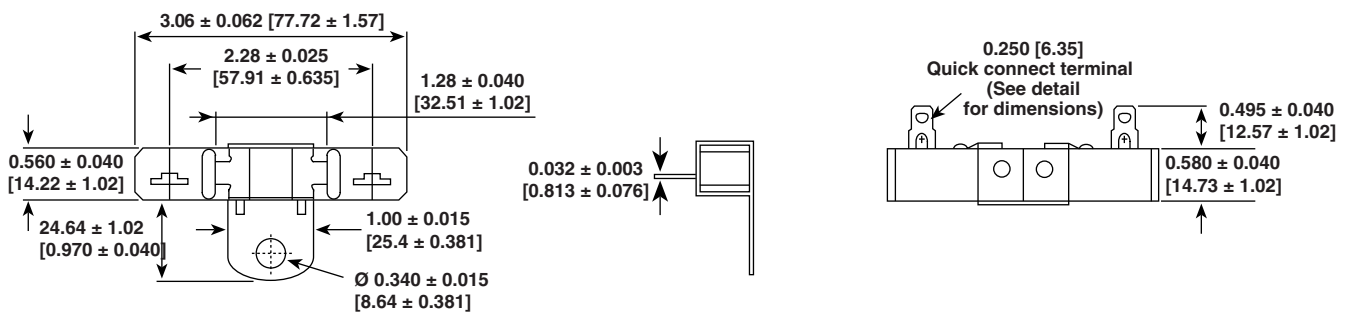
**MODEL CP015B**



**MODEL CP020B**

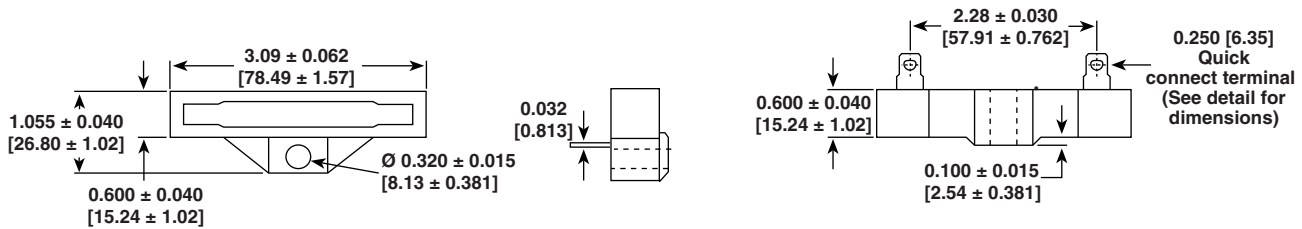


**MODEL CP0026 AND CP026B**

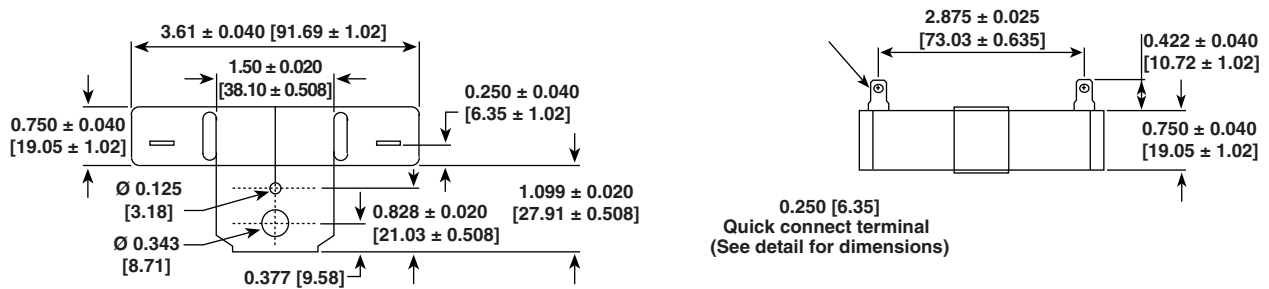




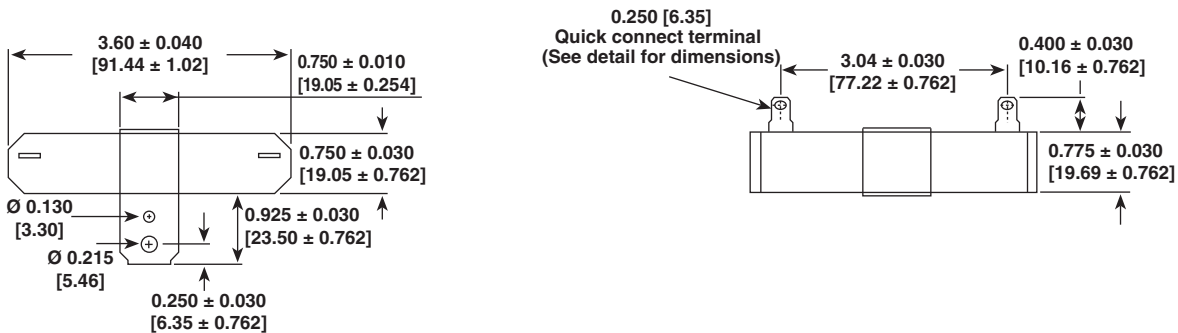
**MODEL CP26SM**



**MODEL CP0050 AND CP050B**

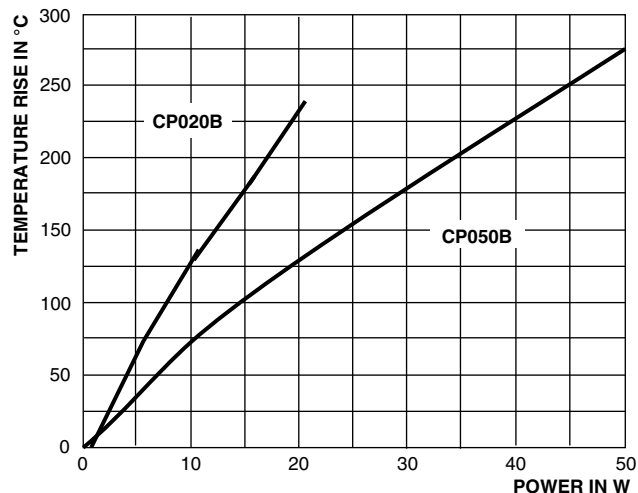


**MODEL CP0050...1 AND CP050B...1**

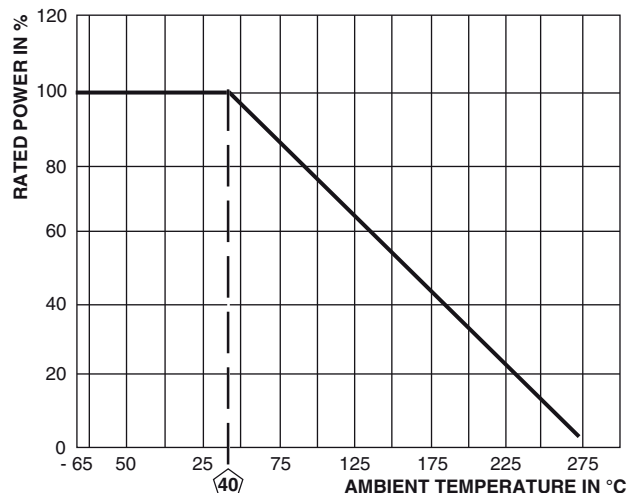




**TEMPERATURE RISE**



**DERATING**



**MATERIAL SPECIFICATIONS**

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

**Core:** woven fiberglass

**Body:** steatite ceramic case with inorganic potting compound

**Terminals:** bare brass

**Bracket:** aluminum

**Part Marking:** DALE, model, wattage, value, tolerance, date code

PERFORMANCE		
TEST	CONDITIONS OF TEST	TEST LIMITS (EIA RS-344)
Thermal Shock	-55 °C to +275 °C, 5 cycles, 30 min dwell time	± (5.0 % + 0.05 Ω) ΔR
Short Time Overload	10 x rated power for 5 s	± (4.0 % + 0.05 Ω) ΔR
Dielectric Withstanding Voltage	1000 V <sub>RMS</sub> for 1 min	± (2.0 % + 0.05 Ω) ΔR
Low Temperature Operation	-65 °C, full rated working voltage for 45 min	± (3.0 % + 0.05 Ω) ΔR
Humidity	75 °C, 90 % to 100 % RH, 240 h	± (5.0 % + 0.05 Ω) ΔR
Load Life	1000 h at rated power, +40 °C, 1.5 h "ON", 0.5 h "OFF"	± (10.0 % + 0.05 Ω) ΔR
Terminal Strength	10 pounds for 30 s	± (2.0 % + 0.05 Ω) ΔR



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