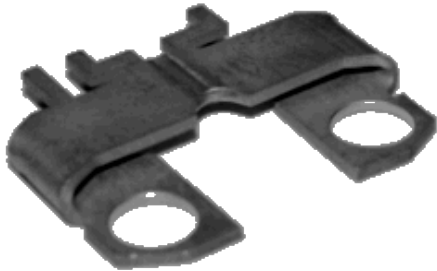




**Power Metal Strip® Meter Shunt Resistor**  
**Very Low Value (Down to 0.0001Ω)**



**FEATURES**

- High power to resistor size ratio
- 5 terminal connection design
- Use for single or multi-phase energy meters
- Proprietary processing technique produces extremely low resistance values
- All welded construction
- RoHS compliant, lead-free construction
- Very low inductance (< 5nH)
- Low thermal EMF (< 3 μV/°C)



**RoHS**  
COMPLIANT

**GREEN**  
(5-2008)\*\*

STANDARD ELECTRICAL SPECIFICATIONS					
GLOBAL MODEL	POWER RATING P <sub>70°C</sub> W	TOLERANCE %	RESISTANCE VALUE RANGE	RESISTANCE VALUES CURRENTLY AVAILABLE	WEIGHT (Typical) g
WSMS3124	3.0	5.0	100 μΩ - 750 μΩ	100 μΩ Other Values Available Contact Factory	4.3

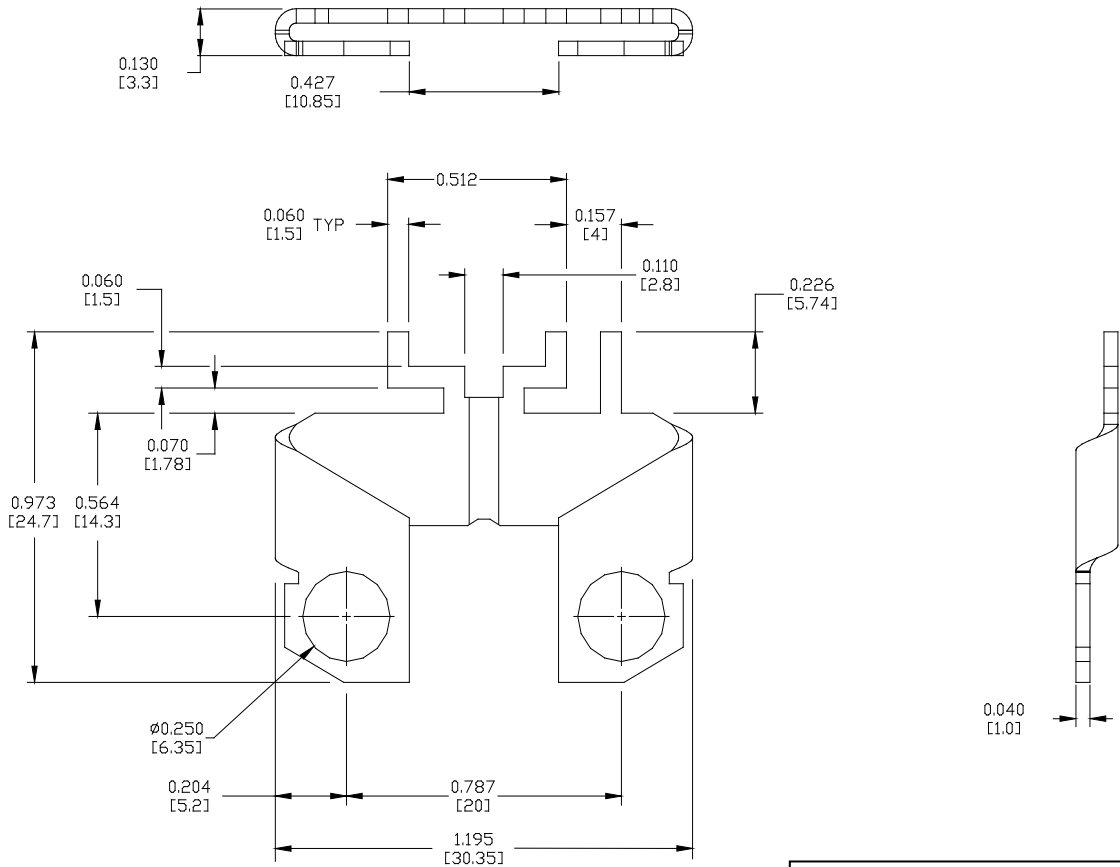
TECHNICAL SPECIFICATIONS		
PARAMETER	UNIT	RESISTOR CHARACTERISTICS
Temperature Coefficient	ppm/°C	100μΩ = ±75
Operating Temperature Range	°C	-65 / +170
Maximum Current Rating	A	(P/R) <sup>1/2</sup>

GLOBAL PART NUMBER INFORMATION				
Global Part Numbering: WSMS3124L1000JK (WSMS3124, 0.0001Ω, ±5%)				
W	S	M	S	3 1 2 4 L 1 1 0 0 J K
GLOBAL MODEL <b>WSMS3124</b>	RESISTANCE VALUE L = Milliohm <b>L1000 = 0.00010Ω</b>	TOLERANCE CODE <b>J = ±5.0%</b>	PACKAGING CODE <b>K = Bulk Pack</b> <b>E = Tape &amp; Reel</b>	SPECIAL (Dash number) (up to 2 digits) From 1 - 99 as applicable

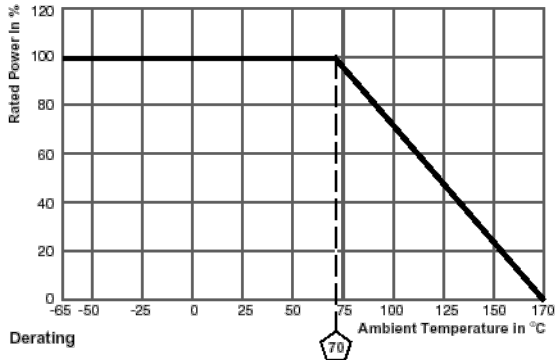


**Power Metal Strip® Meter Shunt Resistor, Low Value**

**DIMENSIONS**



ALL DIMENSIONS ARE IN INCHES  
TOLERANCES ON DECIMALS  
XXX ±.005



RESISTANCE VALUE ( $\mu\Omega$ )	RESISTOR ELEMENT THICKNESS (inches)	ELEMENT LENGTH	ELEMENT MATERIAL
100	0.038	0.090	Mn-Cu

PERFORMANCE		
TEST	CONDITIONS OF TEST	TEST LIMITS
Thermal Shock	-55°C to +150°C, 1000 cycles, 15 minutes at each extreme	±0.5% $\Delta R$
Short Time Overload	5 x rated power for 5 seconds	±0.5% $\Delta R$
Low Temperature Operation	-65°C for 45 Min.	±0.5% $\Delta R$
High Temperature Exposure	1000 Hours @ +170°C	±1.0% $\Delta R$
Bias Humidity	+85°C, 85% RH, 10% Bias, 1000 hours	±0.5% $\Delta R$
Mechanical Shock	100g's for 6 milliseconds, 5 pulses	±0.5% $\Delta R$
Vibration	Frequency varied 10 to 2000Hz in one minute, 3 directions, 12 hours	±0.5% $\Delta R$
Load Life	1000 Hours @ 70°C, 1.5 hrs "ON", 0.5 hrs "OFF"	±1.0% $\Delta R$
Moisture Resistance	MIL-STD-202, Method 106, 0% power, 7b not required	±0.5% $\Delta R$

For technical questions, contact [ww2bresistors@vishay.com](mailto:ww2bresistors@vishay.com)

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