

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)**

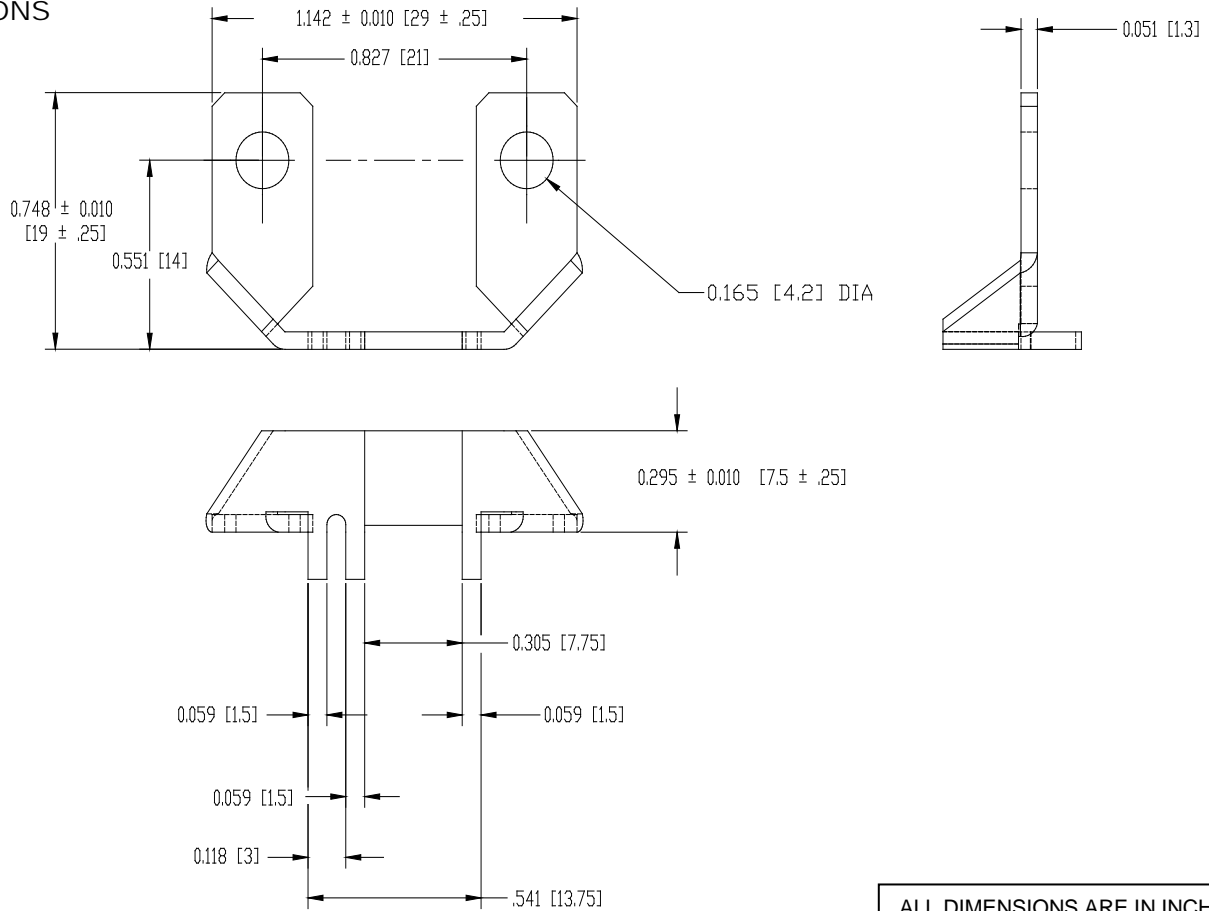
STANDARD ELECTRICAL SPECIFICATIONS					
GLOBAL MODEL	POWER RATING P _{70°C} W	TOLERANCE %	RESISTANCE VALUE RANGE	RESISTANCE VALUES CURRENTLY AVAILABLE	WEIGHT (Typical) g
WSMS2906	3.0	5.0	300 μΩ - 660 μΩ	300μΩ, 400μΩ, 500μΩ Other Values Available Contact Factory	4.7

TECHNICAL SPECIFICATIONS		
PARAMETER	UNIT	RESISTOR CHARACTERISTICS
Temperature Coefficient	ppm/°C	±100 for 300μΩ & 400μΩ, ±75 for 500μΩ
Operating Temperature Range	°C	-65 / +170
Maximum Current Rating	A	(P/R) ^{1/2}

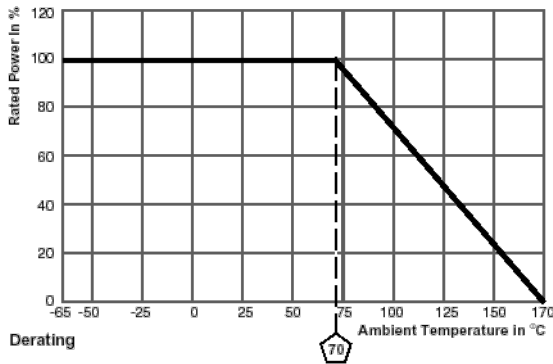
GLOBAL PART NUMBER INFORMATION				
Global Part Numbering: WSMS2906L4000JK (WSMS2906, 0.0004Ω, ±5%)				
W	S	M	S	2 9 0 6 L 4 0 0 0 J K
GLOBAL MODEL WSMS2906	RESISTANCE VALUE L = Milliohm L3000 = 0.00030Ω L4000 = 0.00040Ω L5000 = 0.00050Ω	TOLERANCE CODE J = ±5.0%	PACKAGING CODE K = Bulk Pack E = Tape & Reel	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
300, 400, 500	0.051	0.276	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% ΔR
Short Time Overload	5 x rated power for 5 seconds	±0.5% ΔR
Low Temperature Operation	-65°C for 45 Min.	±0.5% ΔR
High Temperature Exposure	1000 Hours @ +170°C	±1.0% ΔR
Bias Humidity	+85°C, 85% RH, 10% Bias, 1000 hours	±0.5% ΔR
Mechanical Shock	100g's for 6 milliseconds, 5 pulses	±0.5% ΔR
Vibration	Frequency varied 10 to 2000Hz in one minute, 3 directions, 12 hours	±0.5% ΔR
Load Life	1000 Hours @ 70°C, 1.5 hrs "ON", 0.5 hrs "OFF"	±1.0% ΔR
Moisture Resistance	MIL-STD-202, Method 106, 0% power, 7b not required	±0.5% ΔR

For technical questions, contact ww2bresistors@vishay.com

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