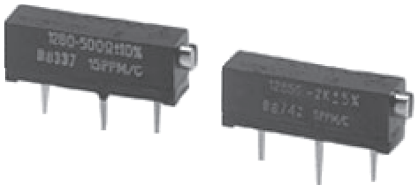
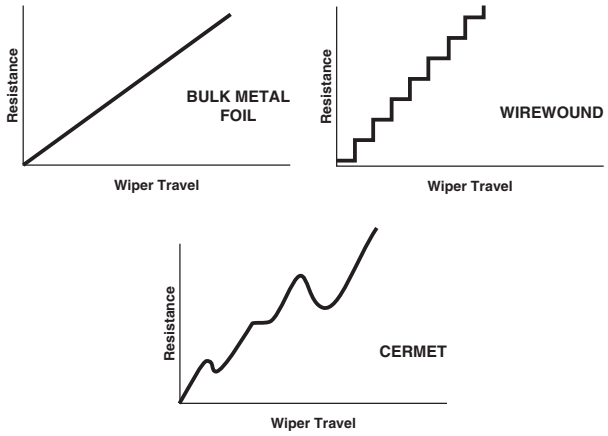
Bulk Metal® Foil Technology Ultra High Precision Trimming Potentiometers 3/4" Rectilinear, ± 5 ppm/°C and ± 15 ppm/°C TCR with a Smooth and Unidirectional Output



INTRODUCTION

Vishay Foil precision trimmers have the Bulk Metal® Foil resistive element which possesses a unique inherent temperature and load life stability. Plus, their advanced virtually back lash-free adjustment mechanism makes them easy to set quickly and accurately and keeps the setting exactly on target.



FEATURES

Pb-free
RoHS COMPLIANT

- Temperature coefficient of resistance (TCR): (- 55 °C to + 125 °C ref. at + 25 °C)
  - ± 15 ppm/°C (model 1280G);
  - ± 5 ppm/°C (model 1285G)[3];
  - through the wiper ± 50 ppm/°C
- A smooth and unidirectional resistance with leadscrew adjustment
- Load life stability: 0.5 % maximum ΔR under full rated power at + 25 °C for 2000 h
- Electrostatic discharge (ESD) up to 25 000 V
- Settability: 0.05 % typical; 0.1 % maximum
- Setting stability: 0.1 % typical; 0.5 % maximum, ΔSS
- Power rating: 0.75 W at + 25 °C
- Resistance range: 10 Ω to 20 kΩ
- Resistance tolerance: ± 10 %, ± 5 %
- Backlash: < 0.05 %
- Tap test: 0.05 % typical; 0.1 % maximum
- "O"-ring prevents ingress of fluids during any board cleaning operation
- Terminal finish: gold plated (tin/lead finish available on request)

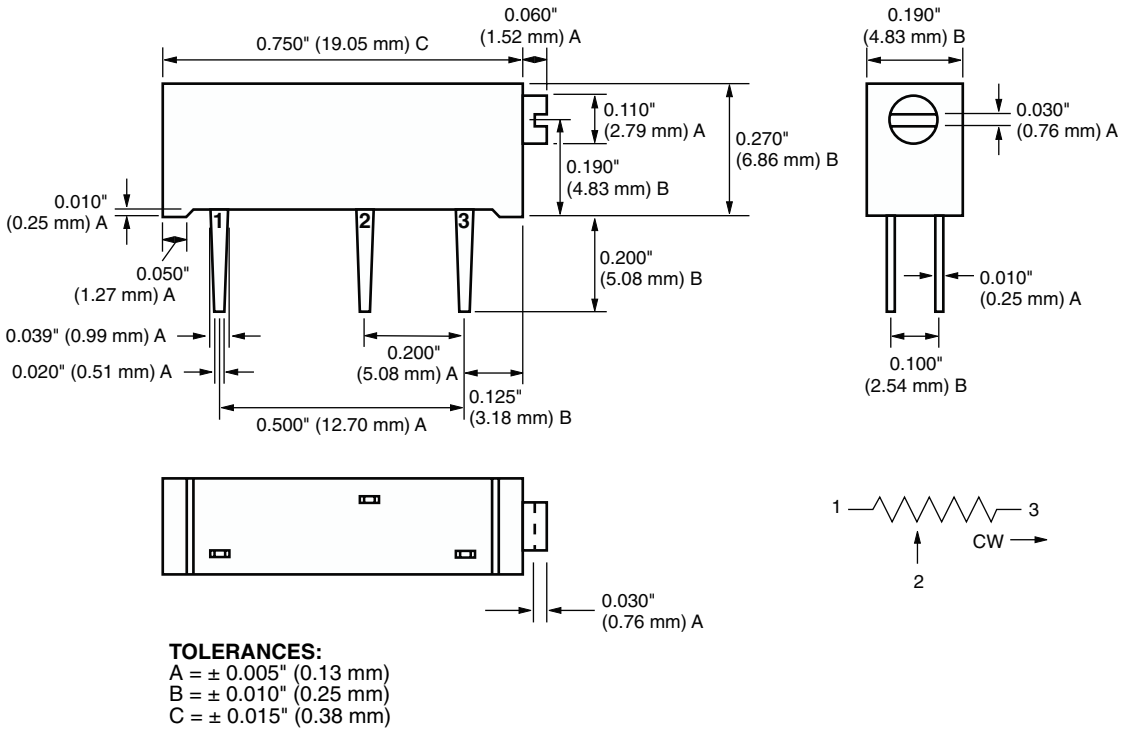
TABLE 1 - 1280G AND 1285G SERIES ELECTRICAL SPECIFICATIONS	
Resistance Tolerance	Model 1280G 10 % [1], Model 1285G 5 %
Resistance Range	10 Ω to 20 kΩ
TCR Model 1280G	± 15 ppm/°C (- 55 °C to + 125 °C, ref. + 25 °C)
TCR Model 1285G [3]	± 5 ppm/°C (- 55 °C to + 125 °C, ref. + 25 °C)
Power	0.75 W at + 25 °C derated linearly to 0 W at + 125 °C (see Fig. 2)
Settability	0.05 % typical; 0.1 % maximum
Setting Stability	0.1 % typical; 0.5 % maximum
Roll-on, Roll-off	0.25 % typical; 1.0 % maximum
Load Life Stability	0.5 % ΔR after 2000 h under full rated power at + 25 °C
End Resistance	2 Ω maximum
C.R.V. (noise) [2]	3 Ω typical; 10 Ω maximum
Frequency Characteristics	10 ns rise time at 1 kΩ to 100 MHz

Notes
[1] 5 % available on special order
[2] The 1280G can be screened for low noise, if required
[3] For model 1285G 10 Ω and 20 Ω TCR is ± 10 ppm/°C
[4] Panel mount available on special order

TABLE 2 - STANDARD VALUE
10 Ω, 20 Ω, 50 Ω, 100 Ω, 200 Ω, 500 Ω, 1 kΩ, 2 kΩ, 5 kΩ, 10 kΩ, 20 kΩ

TABLE 3 - 1280G AND 1285G SERIES MECHANICAL SPECIFICATIONS	
Adjustment Turns	26 ± 2 turns
Backlash	< 0.05 %
Stops	clutch, wiper idles
Sealed	+ 85 °C water immersion
Torque	5 oz. in. maximum
Weight	1.5 grams maximum
Construction Case Material Lead Screw Wiper Rider Block Element Lead Material	 Valox® Brass Precious metal brush Nylon Bulk Metal® Foil Gold plated phosphor bronze

FIGURE 1 - 1280G/1285G SCHEMATIC AND DIMENSIONS in Inches (Millimeters)



TOLERANCES:
A = ± 0.005" (0.13 mm)
B = ± 0.010" (0.25 mm)
C = ± 0.015" (0.38 mm)

FIGURE 2 - POWER DERATING CURVE

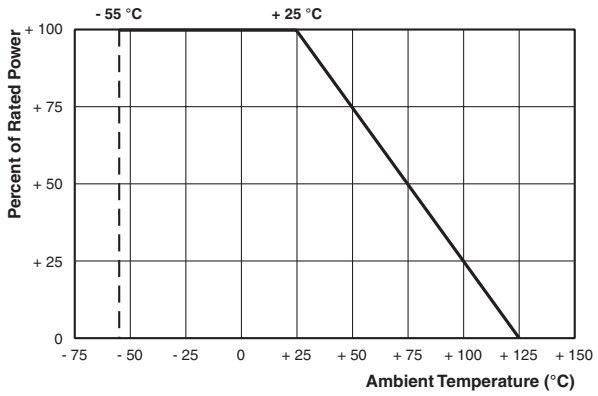
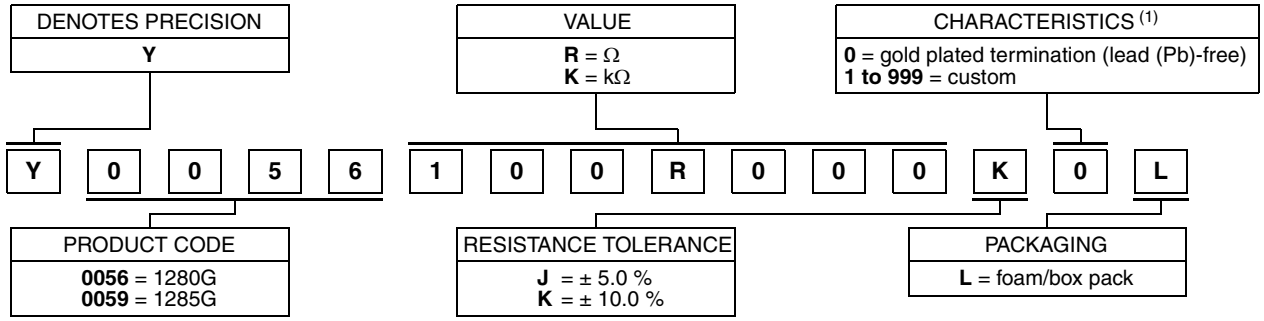


TABLE 4 - GLOBAL PART NUMBER INFORMATION

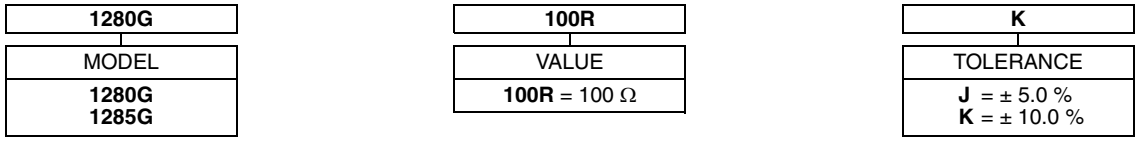
NEW GLOBAL PART NUMBER: Y0056100R000K0L (preferred part number format)



FOR EXAMPLE: ABOVE GLOBAL ORDER Y0056 100R000 K 0 L:

TYPE: 1280G
VALUES: 100.0 Ω
ABSOLUTE TOLERANCE: ± 10 %
TERMINATION: gold plated (lead (Pb)-free)
PACKAGING: foam/box pack

HISTORICAL PART NUMBER: 1280G 100R K (will continue to be used)



Note

(1) For non-standard requests or additional values, please contact application engineering.

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