Accutrim™ 1280G, 1285G

Vishay Foil Resistors

Bulk Metal[®] Foil Technology Ultra High Precision Trimming Potentiometers ${}^{3}/_{4}$ " Rectilinear, <u>± 5 ppm/°C</u> and <u>± 15 ppm/°C</u> TCR with a Smooth and Unidirectional Output



INTRODUCTION

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GROUP

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

- 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 k Ω
- Resistance tolerance: \pm 10 %, \pm 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⁾	3Ω typical; 10Ω maximum
Frequency Characteristics	10 ns rise time at 1 k Ω to 100 MHz

Notes

- (1) 5 % available on special order
- ⁽²⁾ The 1280G can be screened for low noise, if required
- $\stackrel{(3)}{\rightarrow}$ 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 $\Omega,$ 20 $\Omega,$ 50 $\Omega,$ 100 $\Omega,$ 200 $\Omega,$ 500 $\Omega,$ 1 k $\Omega,$ 2 k $\Omega,$ 5 k $\Omega,$ 10 k $\Omega,$ 20 k Ω

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COMPLIANT

Accutrim[™] 1280G, 1285G

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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





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Note

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



Vishay Precision Group

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