

## Bulk Metal® Foil Technology Precision Trimming Potentiometers 3/4" Rectilinear, $\pm 5$ ppm/°C and $\pm 15$ ppm/°C TCR



### FEATURES

- Temperature coefficient of resistance (TCR): (- 55 °C to + 125 °C ref. at + 25 °C)
  - $\pm 15$  ppm/°C (model 1280G);
  - $\pm 5$  ppm/°C (model 1285G<sup>3</sup>);
  - through the wiper  $\pm 50$  ppm/°C
- Load life stability: 0.5 % maximum  $\Delta R$  under full rated power at + 25 °C for 2000 h
- Electrostatic discharge: above 25 000 V
- Settability: 0.05 % typical; 0.1 % maximum
- Setting stability: 0.1 % typical; 0.5 % maximum,  $\Delta SS$
- Power rating: 0.75 W at + 25 °C
- Resistance range: 10  $\Omega$  to 20 k $\Omega$
- 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
- Termination: gold plated



**RoHS**  
COMPLIANT

**TABLE 1 - 1280G AND 1285G SERIES ELECTRICAL SPECIFICATIONS**

<b>Resistance Tolerance</b>	Model 1280G 10 % <sup>1)</sup> Model 1285G 5 %
<b>Resistance Range</b>	10 $\Omega$ to 20 k $\Omega$
<b>TCR Model 1280G</b>	$\pm 15$ ppm/°C (- 55 °C to + 25 °C) $\pm 15$ ppm/°C (+ 25 °C to + 125 °C)
<b>TCR Model 1285G<sup>3)</sup></b>	$\pm 5$ ppm/°C (- 55 °C to + 25 °C) $\pm 5$ ppm/°C (+ 25 °C to + 125 °C)
<b>Power</b>	0.75 W at + 25 °C derated linearly to 0 W at + 125 °C (see Fig. 2)
<b>Settability</b>	0.05 % typical; 0.1 % maximum
<b>Setting Stability</b>	0.1 % typical; 0.5 % maximum, $\Delta SS$
<b>Roll-on, Roll-off</b>	0.25 % typical; 1.0 % maximum
<b>Load Life Stability</b>	0.5 % $\Delta R$ after 2000 h under full rated power at + 25 °C
<b>End Resistance</b>	2 $\Omega$ maximum
<b>C.R.V.<sup>2)</sup></b>	3 $\Omega$ typical; 10 $\Omega$ maximum
<b>Frequency Characteristics</b>	10 ns rise time at 1 k $\Omega$ 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  $\Omega$  and 20  $\Omega$  TCR is  $\pm 10$  ppm/°C
4. Panel mount available on special order

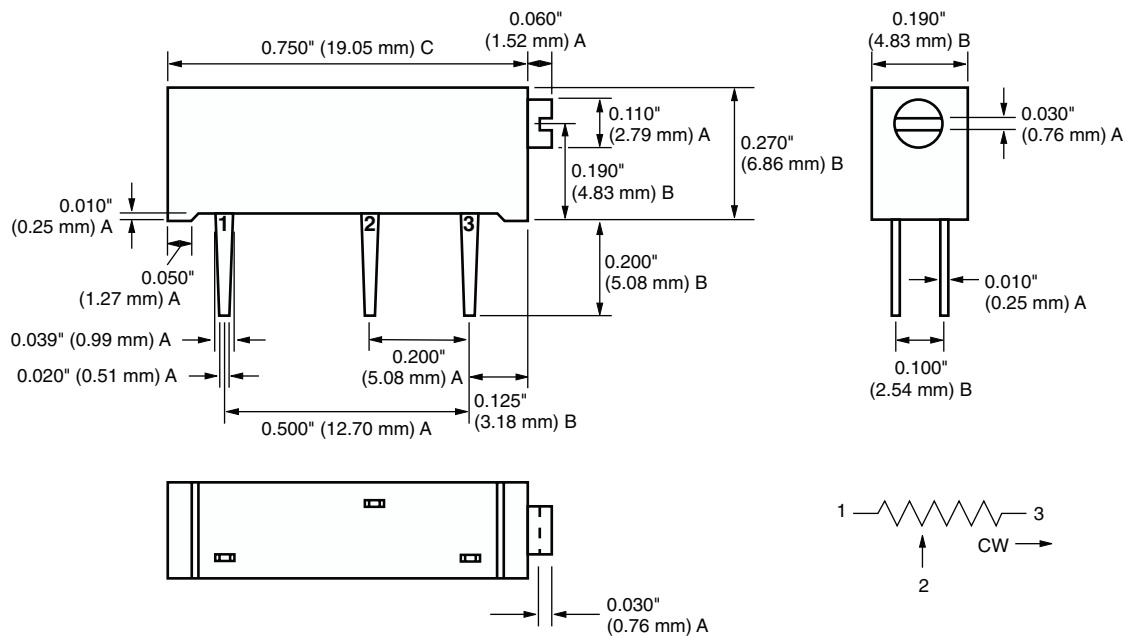
**TABLE 2 - STANDARD VALUE**

10 $\Omega$ , 20 $\Omega$ , 50 $\Omega$ , 100 $\Omega$ , 200 $\Omega$ , 500 $\Omega$ 1K, 2K, 5K, 10K, 20K
--

**TABLE 3 - 1280G AND 1285G SERIES MECHANICAL SPECIFICATIONS**

<b>Adjustment Turns</b>	26 $\pm$ 2 turns
<b>Backlash</b>	< 0.05 %
<b>Stops</b>	clutch, wiper idles
<b>Sealed</b>	+ 85 °C water immersion
<b>Torque</b>	5 oz. in. maximum
<b>Weight</b>	1.5 grams maximum
<b>Construction</b>	
Case Material	Valox®
Lead Screw	Brass
Wiper	Precious metal brush
Rider Block	Nylon
Element	Bulk Metal® Foil
Lead Material	Gold plated phosphor bronze

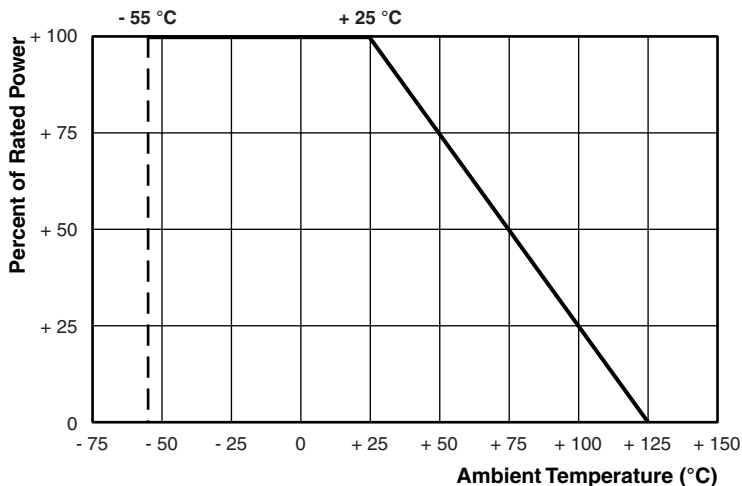
**FIGURE 1 - 1280G/1285G SCHEMATIC AND DIMENSIONS** in inches (millimeters)



**TOLERANCES**

- A =  $\pm 0.005$ " (0.13 mm)
- B =  $\pm 0.010$ " (0.25 mm)
- C =  $\pm 0.015$ " (0.38 mm)

**FIGURE 2 - POWER DERATING CURVE**

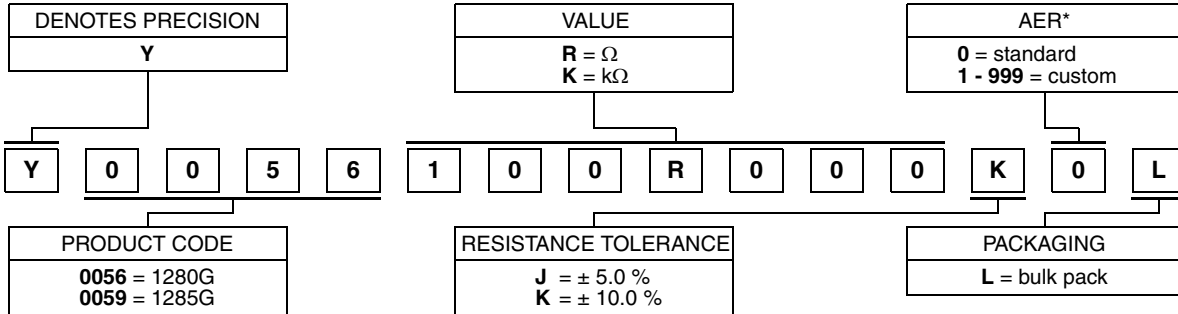




Bulk Metal® Foil Technology  
 Precision Trimming Potentiometers  
 3/4" Rectilinear,  $\pm 5 \text{ ppm}/^\circ\text{C}$  and  $\pm 15 \text{ ppm}/^\circ\text{C}$  TCR

**TABLE 4 - GLOBAL PART NUMBER INFORMATION**

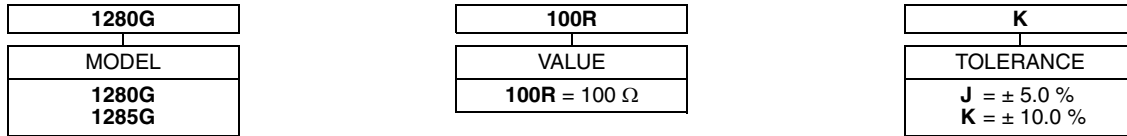
NEW GLOBAL PART NUMBER: Y0056100R000K0L (preferred part number format)



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

TYPE: 1280G  
 VALUES: 100.0  $\Omega$   
 ABSOLUTE TOLERANCE:  $\pm 10\%$   
 TERMINATION: gold plated  
 PACKAGING: bulk pack

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



**Note**

\* For non-standard requests or additional values, please contact application engineering.



## Disclaimer

All product specifications and data are subject to change without notice.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

Vishay disclaims any and all liability arising out of the use or application of any product described herein or of any information provided herein to the maximum extent permitted by law. The product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein, which apply to these products.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications unless otherwise expressly indicated. Customers using or selling Vishay products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify Vishay for any damages arising or resulting from such use or sale. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.