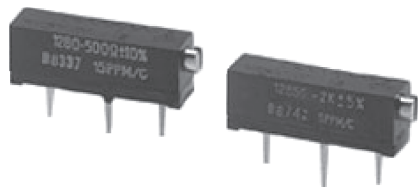
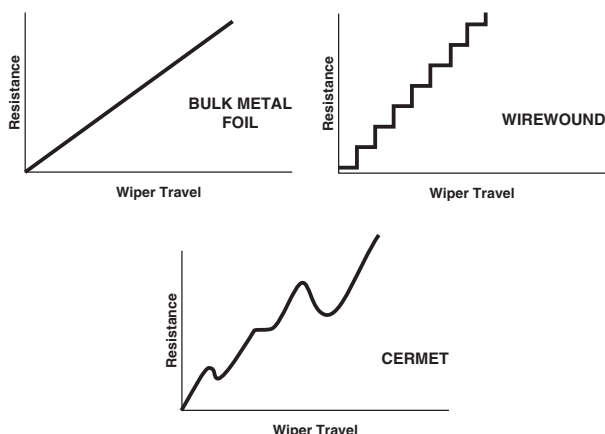


## Bulk Metal® Foil Technology Ultra High Precision Trimming Potentiometers $\frac{3}{4}$ " Rectilinear, $\pm 5$ ppm/°C and $\pm 15$ ppm/°C TCR with a Smooth and Unidirectional Output



### 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 backlash-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)  
-  $\pm 15$  ppm/°C (model 1280G);  
-  $\pm 5$  ppm/°C (model 1285G)<sup>(3)</sup>;  
- through the wiper  $\pm 50$  ppm/°C
- A smooth and unidirectional resistance with leadscrew adjustment
- Load life stability: 0.5 % maximum  $\Delta R$  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,  $\Delta SS$
- 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
- Terminal finish: gold plated (tin/lead finish available on request)



**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 + 125 °C, ref. + 25 °C)
<b>TCR Model 1285G <sup>(3)</sup></b>	$\pm 5$ ppm/°C (- 55 °C to + 125 °C, ref. + 25 °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
<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. (noise) <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

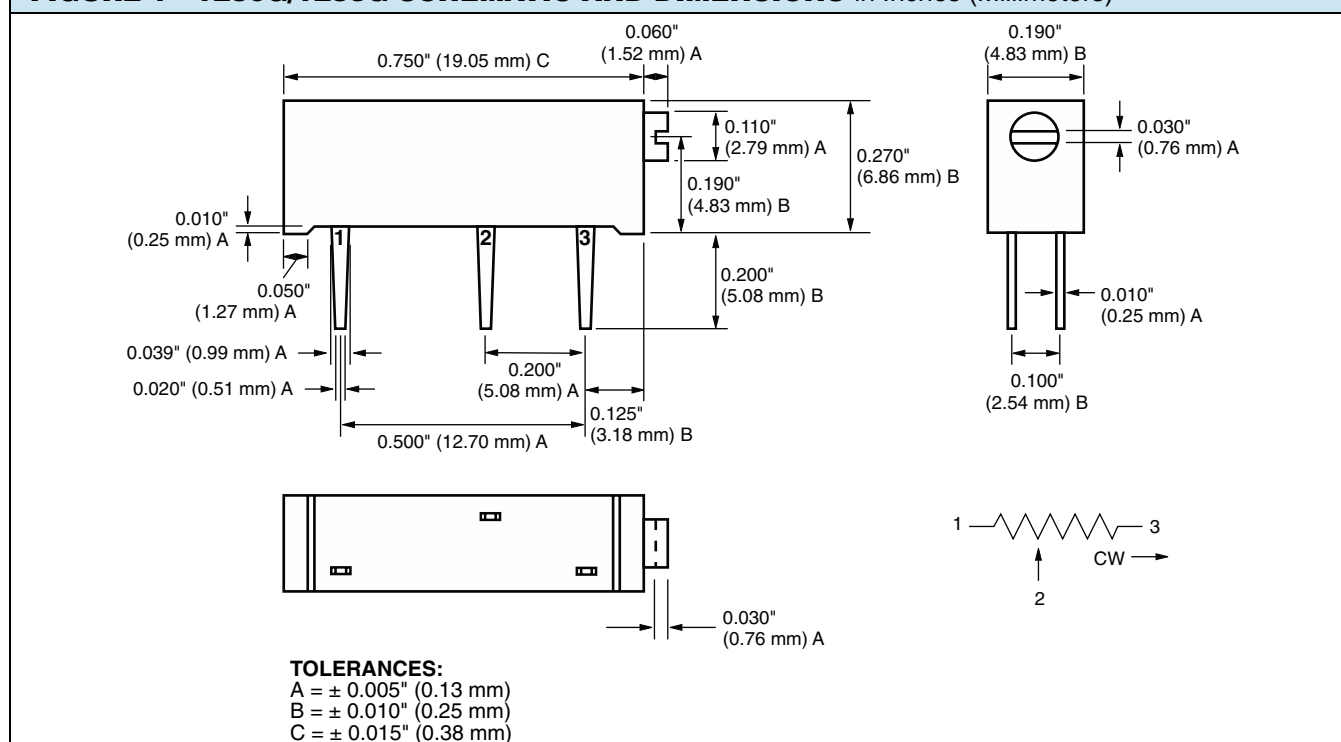
**TABLE 2 - STANDARD VALUE**

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

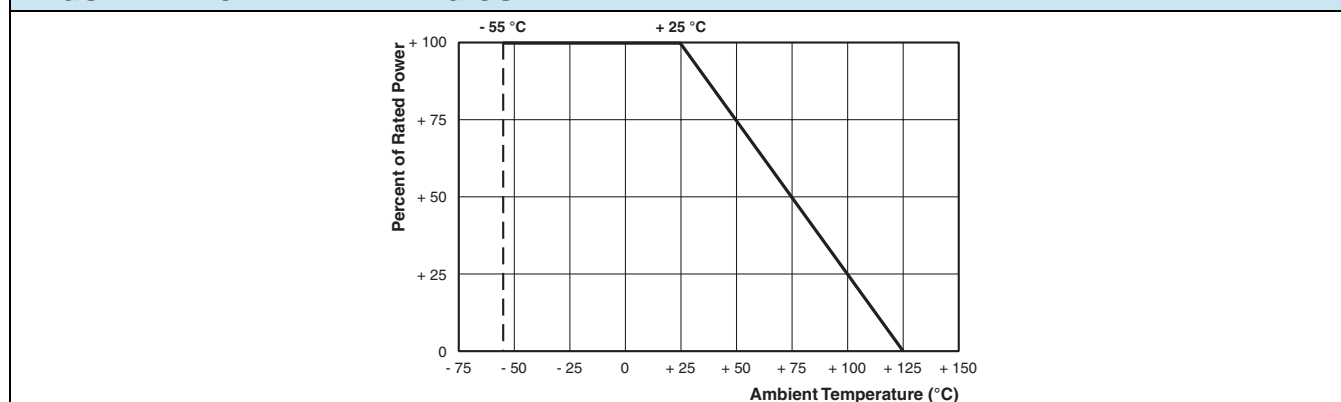
**TABLE 3 - 1280G AND 1285G SERIES MECHANICAL SPECIFICATIONS**

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	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)**

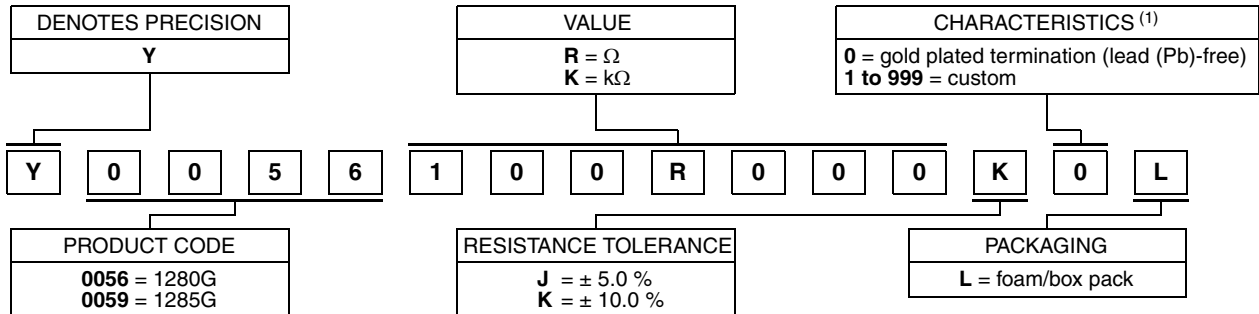


**FIGURE 2 - POWER DERATING CURVE**



**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

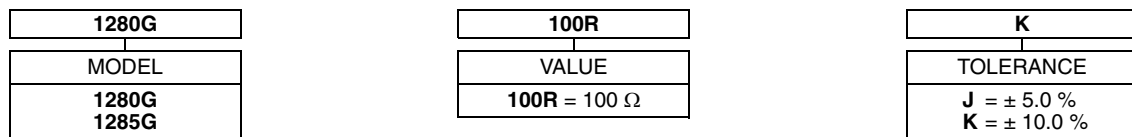
VALUES: 100.0  $\Omega$

ABSOLUTE TOLERANCE:  $\pm 10\%$

TERMINATION: gold plated (lead (Pb)-free)

PACKAGING: foam/box pack

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



**Note**

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

## Disclaimer

ALL PRODUCTS, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE.

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

The product specifications do not expand or otherwise modify VPG's terms and conditions of purchase, including but not limited to, the warranty expressed therein.

VPG makes no warranty, representation or guarantee other than as set forth in the terms and conditions of purchase.

**To the maximum extent permitted by applicable law, VPG disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.**

Information provided in datasheets and/or specifications may vary from actual results in different applications and performance may vary over time. Statements regarding the suitability of products for certain types of applications are based on VPG's knowledge of typical requirements that are often placed on VPG products. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. You should ensure you have the current version of the relevant information by contacting VPG prior to performing installation or use of the product, such as on our website at [vpgsensors.com](http://vpgsensors.com).

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

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

Copyright Vishay Precision Group, Inc., 2014. All rights reserved.

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Vishay Precision Group:](#)

[Y00565K00000K0L](#) [Y0056100R000K0L](#) [Y005620K0000K0L](#) [Y0056500R000K0L](#) [Y005610K0000K0L](#)  
[Y00561K00000K0L](#) [Y005610R0000K0L](#) [Y00562K00000K0L](#)