

# **Working Standard Resistor**

### **FEATURES**

- · Usable in air without oil bath
- Wide resistance range available from 1 m $\Omega$  to 100 M $\Omega$
- Excellent performance versus cost
- Terminals aligned in a single row for easier wiring and placement
- Certificate of Calibration and Inspection sheets traceable to NMIJ\* are provided at shipment.
  \*NMIJ: National Metrology Institute of Japan

#### **MASS**

Approx. 300g (0.66 lbs)

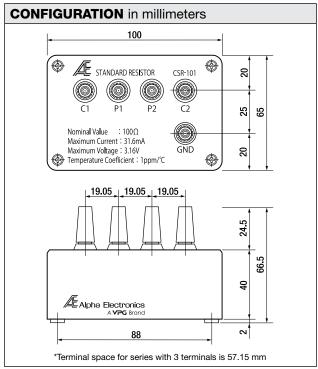
#### **DESCRIPTION**

The CSR series has Bulk Metal® Foil resistance elements, which have the same excellent stability and low temperature coefficient of resistance as the ASR series—a precision level that cannot be provided by any other resistance material. In addition, the CSR is designed for equal ease of use in the laboratory or on the production floor. It's construction is designed to give priority for portability and workability, being used in air without an oil bath.

### **CUSTOMIZED SPECIFICATIONS**

Available for any customized resistance value. Contact to our sales department for more details.





SPECIFICATIONS											
Series	Nominal value	Accuracy	Temp. Coefficient	Stability ppm/year	Power Rating W	Power Coefficient ppm/mW	Storage Temp. Range	Max. Working Current	Max. Working Voltage	Working Temp. Range	Number of Terminals
CSR-10N	10 mΩ	±50	±5	±15	7.07	0.07					
CSR-R10	100 mΩ	±25	±2.5	±10	2.23	0.22					
CSR-1R0	1Ω	±5	±1	±5	0.1	±0.01	0.31	0.31			
CSR-100	10Ω						0.10	1.00			
CSR-101	100Ω						0.03	3.16			
CSR-102	1 kΩ						0.01	10.0			
CSR-103	10 kΩ						0.003	31.6			
CSR-104	100 kΩ						0.001	100	3		
CSR-105	1 ΜΩ						0.0003	316			
CSR-106	10 ΜΩ	±10		±10	0.1		0.0001	1000			
CSR-107	100 MΩ	±25	±5	±25	±25 0.01		0.00001	1000			



# **Legal Disclaimer Notice**

Vishay Precision Group, Inc.

## 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.

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.

Document No.: 63999 Revision: 15-Jul-2014