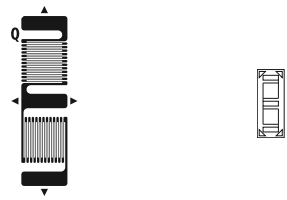
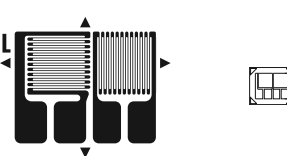
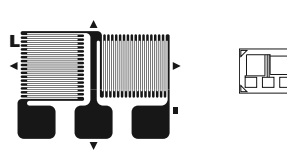


Transducer-Class® Strain Gages

GAGE PATTERN	Actual size shown. Enlarged when necessary for definition.	GAGE DESIGNATION See Note 1	RES. IN OHMS	STANDARD CREEP CODE	ENCAPSU- LATION OPTION AVAILABLE
	DIMENSIONS				

				Often used on small column transducers.			
GAGE LENGTH	OVERALL LENGTH	GRID WIDTH	OVERALL WIDTH	N2A-XX-S063Q-350	350 ± 0.2%	Q*	E2
0.062	0.295	0.080	0.080				
1.57	7.49	2.03	2.03				
MATRIX SIZE	0.36 L x 0.14 W		9.0 L x 3.6 W				

				General-purpose 90° tee rosette.			
GAGE LENGTH	OVERALL LENGTH	GRID WIDTH	OVERALL WIDTH	N2A-XX-S064L-350	350 ± 0.2%	L*	E2
0.062	0.133	0.075	0.168				
1.57	3.38	1.91	4.27				
MATRIX SIZE	0.24 L x 0.25 W		4.9 L x 5.8 W				

				Encapsulated 90° tee rosette.			
GAGE LENGTH	OVERALL LENGTH	GRID WIDTH	OVERALL WIDTH	J2A-XX-S114L-350 J2A-XX-S152M-10C	350 ± 0.4% 1000 ± 0.4%	L M	
0.080	0.170	0.110	0.240				
2.03	4.32	2.79	6.10				
MATRIX SIZE	0.23 L x 0.30 W		5.9 L x 7.6 W				

*Only creep code available for this gage type.

Note 1: All products are RoHS compliant.

90° Patterns - Dual Grid

Transducer-Class® Strain Gages

GAGE PATTERN	Actual size shown. Enlarged when necessary for definition.	GAGE DESIGNATION See Note 1	RES. IN OHMS	STANDARD CREEP CODE	ENCAPSULATION OPTION AVAILABLE
	DIMENSIONS				

				Designed for low-cost, half-bridge transducers. †BAL is balanced to ± 0.2%, but RG is 350 ohms ± 15%. ‡BAL is balanced to ± 0.2%, but RG is 1000 ohms ± 15%.				
GAGE LENGTH	OVERALL LENGTH	GRID WIDTH	OVERALL WIDTH					
GRID 1 0.060	0.180	GRID 1 0.120	0.175					
1.52	4.57	3.05	4.45					
MATRIX SIZE	0.22 L x 0.22 W		5.6 L x 5.6 W		N2A-XX-S153R-35B	BAL ± 0.2%†	R*	E2
					N2A-XX-S150R-1KB	BAL ± 0.2%‡	R*	E2

				Often used on column transducers.				
GAGE LENGTH	OVERALL LENGTH	GRID WIDTH	OVERALL WIDTH					
0.100	0.415	0.130	0.130					
2.54	10.54	3.30	3.30					
MATRIX SIZE	0.48 L x 0.19 W		12.2 L x 4.8 W		N2K-XX-S165V-10C/DP	1000 ± 0.2%	V	E2

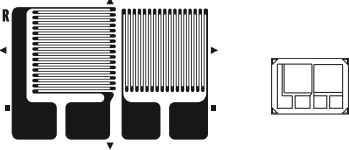
				Often used on column transducers.				
GAGE LENGTH	OVERALL LENGTH	GRID WIDTH	OVERALL WIDTH					
0.100	0.415	0.130	0.130					
2.54	10.54	3.30	3.30					
MATRIX SIZE	0.48 L x 0.19 W		12.2 L x 4.8 W		N2A-XX-S053P-350	350 ± 0.2%	P	E2

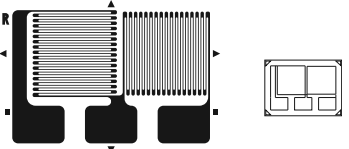
*Only creep code available for this gage type.

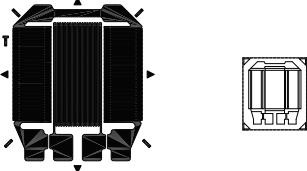
Note 1: All products are RoHS compliant.

Transducer-Class® Strain Gages

GAGE PATTERN	Actual size shown. Enlarged when necessary for definition.		GAGE DESIGNATION See Note 1	RES. IN OHMS	STANDARD CREEP CODE	ENCAPSULATION OPTION AVAILABLE
	DIMENSIONS	inch millimeter				

				General-purpose 90° tee rosette.			
GAGE LENGTH	OVERALL LENGTH	GRID WIDTH	OVERALL WIDTH	N2A-XX-S054Y-350 N2K-XX-S145R-10C/DP TK-XX-S145R-10C/DP	350 ± 0.2% 1000 ± 0.2% 1000 ± 0.2%	Y R R	E2 E2 E2
0.125	0.230	0.150	0.340				
3.18	5.84	3.81	8.64				
MATRIX SIZE	0.29 L x 0.40 W		7.4 L x 10.2 W				

				Three-tab version of S145R pattern.			
GAGE LENGTH	OVERALL LENGTH	GRID WIDTH	OVERALL WIDTH	N2K-XX-S146R-10C/DP TK-XX-S146R-10C/DP	1000 ± 0.2% 1000 ± 0.2%	R R	E2 E2
0.125	0.230	0.150	0.340				
3.18	5.84	3.81	8.64				
MATRIX SIZE	0.29 L x 0.40 W		7.4 L x 10.2 W				

				Used on high-accuracy column load cells. (1) Gage length is 0.200 in (5.1mm). (2) Transverse gage length is 0.050 in (1.27mm).			
GAGE LENGTH	OVERALL LENGTH	GRID WIDTH	OVERALL WIDTH	N2A-XX-S167R-350 N2K-XX-S015T-350/DP N2K-XX-S184T-10C/DP TK-XX-S015T-350/DP TK-XX-S184T-10C/DP	350 ± 0.2% 350 ± 0.2% 1000 ± 0.2% 350 ± 0.2% 1000 ± 0.2%	R* T* T* T* T*	E2 E2 E2 E2 E2
(1)	0.325	(2)	0.270				
(1)	8.26	(2)	6.86				
MATRIX SIZE	0.38 L x 0.33 W		9.6 L x 8.4 W				

*Only creep code available for this gage type.

Note 1: All products are RoHS compliant.

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, "Vishay Precision Group"), 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 Vishay Precision Group's terms and conditions of purchase, including but not limited to, the warranty expressed therein.

Vishay Precision Group 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, Vishay Precision Group 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 Vishay Precision Group's knowledge of typical requirements that are often placed on Vishay Precision Group 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.

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

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