# Micro-Measurements



## Transducer-Class® Strain Gages

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

		11.		Small dual-element gage de	esigned for bending	g-beam transdu	icers.
GAGE LENGTH	OVERALL LENGTH	GRID WIDTH	OVERALL WIDTH	N2A-XX-S061P-350	350 ± 0.2%	Р	E2
0.060	0.12	0.065	0.150	N2K-XX-S085N-350/DP N2K-XX-S098N-10C/DP	350 ± 0.2% 1000 ± 0.2%	N N	E2 E2
1.52	3.1	1.65	3.81	TK-XX-S085N-350/DP TK-XX-S098N-10C/DP	350 ± 0.2% 1000 ± 0.2%	N N	E2 E2
MATRIX SIZE	0.19 L x 0.2	21 W 4	.8 L x 5.3 W	SK-XX-S085N-350	350 ± 0.4%	N	

	N			Compact dual-element patt	ern for bending-bea	am transducers	i.
GAGE LENGTH	OVERALL LENGTH	GRID WIDTH	OVERALL WIDTH				
0.075	0.17	0.100	0.210				
1.90	4.2	2.54	5.33	J2A-XX-S181N-350	350 ± 0.4%	N	
MATRIX SIZE	0.24 L x 0.2	5 W 6.1	L x 6.4 W	J2A-XX-S185N-10C	1000 ± 0.4%	N	

				Half-bridge common-tab pa (5.46 mm).	ttern. Grid centerlir	ne spacing 0.21	15 in
GAGE LENGTH	OVERALL LENGTH	GRID WIDTH	OVERALL WIDTH				
0.060	0.29	0.100	0.100				
1.52	7.4	2.54	2.54	N2A-XX-S141K-175 N2A-XX-T028K-350	175 ± 0.2% 350 ± 0.2%	K K	E2 E2
MATRIX SIZE	0.37 L x 0.1	6 W 9.3	L x 4.1 W	N2A-XX-S124N-10C	1000 ± 0.2%	N	E2

Note 1: Products shown in bold are not RoHS compliant.



### Micro-Measurements **EMEME**

### Transducer-Class® Strain Gages

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

			Half-bridge common-tab pa (5.46mm).	attern. Grid centerlir	ne spacing 0.21	5 in		
GAGE LENGTH	OVERALL LENGTH	GRID WIDTH	l	OVERALL WIDTH				
0.060	0.29	0.180		0.180				
1.52	7.4	4.57		4.57	N2K-XX-T011Q-350/DP	350 ± 0.2%	Q	E2
MATRIX SIZE	0.37 L x 0.2	24 W	W 9.3 L x 6.1 W		TK-XX-T011Q-350/DP	350 ± 0.2%	ga	E2

				Half-bridge common-tab pattern. Grid centerline spacing 0.415 in (10.54mm).  †BAL is balanced to ±0.2%, but RG is 350 ohms ± 15%.				
	T016/S1414							
GAGE LENGTH	OVERALL LENGTH	GRID WIDTH	OVERALL WIDTH					
0.060	0.49	0.100	0.100	N2A-XX-T012R-350	350 ± 0.2%	R	E2	
1.52	12.4	2.54	2.54	N2A-XX-S1414-35B N2K-XX-T016Q-350/DP	BAL ± 0.2%† 350 ± 0.2%	N/A Q	E2 E2	
MATRIX SIZE	0.57 L x 0.1	6 W 14.5	5 L x 4.1 W	TK-XX-T016Q-350/DP	$350 \pm 0.2\%$ $350 \pm 0.2\%$	Q	E2	

				Dual-element pattern for na 0.083 in (2.1mm).	arrow bending bean	ns. Grid centerl	ine spacing
GAGE LENGTH	OVERALL LENGTH	GRID WIDTH	OVERALL WIDTH				
0.062	0.233	0.062	0.062				
1.59	5.97	1.59	1.59	N2A-XX-S1452-350 N2K-XX-S1451-350/DP	350 ± 0.2% 350 ± 0.2%	N/A N/A	E2 E2
MATRIX SIZE	SIZE 0.28 L x 0.12 W 7.2 L x 3.1 W			TK-XX-S1451-350/DP	350 ± 0.2%	N/A	E2

Note 1: Products shown in bold are not RoHS compliant.

## **EMEM** Micro-Measurements

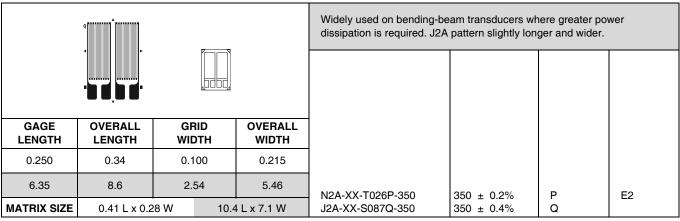


#### Transducer-Class® Strain Gages

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

<b>Q</b>				Dual-element gages widely	used on bending-b	eam transduce	ers.	
GAGE LENGTH	OVERALL LENGTH	GF WIE	RID	OVERALL WIDTH	N2A-XX-T006Q-350	350 ± 0.2%	Q	E2
0.125	0.20	0.0	)65	0.150	J2A-XX-S035M-350 N2K-XX-S082R-350/DP	350 ± 0.4% 350 ± 0.2%	M R	E2
3.18	5.1	1.	65	3.81	N2K-XX-T092P-10C/DP TK-XX-S082R-350/DP	1000 ± 0.2% 350 ± 0.2%	P R	E2 E2
MATRIX SIZE	0.27 L x 0.2	1 W	<i>N</i> 6.9 L x 5.3 W		TK-XX-T092P-10C/DP	1000 ± 0.2%	P	E2

	K			Wider-grid versions of T00	6/S035 patterns.		
GAGE LENGTH	OVERALL LENGTH	GRID WIDTH	OVERALL WIDTH				
0.125	0.21	0.100	0.220	N2A-XX-S138K-350	350 ± 0.2%	K	E2
3.18	5.3	2.54	5.59	N2A-XX-S139N-10C J2A-XX-S138K-350	1000 ± 0.2% 350 ± 0.4%	N K	E2
MATRIX SIZE	0.28 L x 0.2	8 W 7.	1 L x 7.1 W	J2A-XX-S139N-10C	1000 ± 0.4%	N	



Note 1: Products shown in bold are not RoHS compliant.





Vishay Precision Group

#### **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.

Document No.: 63999 www.vishaypg.com Revision: 27-Apr-2011