



### Special Purpose Sensors - Large Patterns

The strain gage patterns listed on these pages employ long measuring grids, and are most commonly used for special-purpose applications where strain averaging is desired. For example, when measuring strain in concrete it is usually the average strain that is sought rather than any severe local fluctuations in strain occurring at the interfaces between the aggregate particles and the cement.

In general, for strain measurement on nonhomogeneous material it is preferable to select a gage length that is large with respect to the size of the inhomogeneity. The large gage patterns listed in this section are well-suited to many of these applications.

GAGE PATTERN		Actual size shown. Enlarged when necessary for definition.	GAGE DESIGNATION Insert desired S-T-C number in spaces marked XX.	RES. IN OHMS Tolerance is increased when Option W, E, SE, LE, or P is specified.	OPTIONS AVAILABLE
ES = Each section	CP = Complete pattern				
S = Section (S1 = Sec 1) M = Matrix		inch millimeter			


750DT				Large general-purpose gage with tab at each end of grid. See also 750DU pattern.		
SEE PATTERN BELOW				N2A-XX-750DT-120 EA-XX-750DT-120 WA-XX-750DT-120 WK-XX-750DT-350 EP-08-750DT-120 SA-XX-750DT-120 SK-XX-750DT-350	120 ± 0.15% 120 ± 0.15% 120 ± 0.3% 350 ± 0.3% 120 ± 0.15% 120 ± 0.3% 350 ± 0.3%	E, L, LE E, L, LE
GAGE LENGTH	OVERALL LENGTH	GRID WIDTH	OVERALL WIDTH			
0.750	1.000	0.110	0.110			
19.05	25.40	2.79	2.79			
MATRIX SIZE	1.14L x 0.21W		29.0L x 5.3W			
						


750DU				Large general-purpose gage. Similar to 750DT pattern except for resistance.		
SEE PATTERN BELOW				N2A-XX-750DU-350 EA-XX-750DU-350 WA-XX-750DU-350 WK-XX-750DU-10C EP-08-750DU-350 SA-XX-750DU-350 SK-XX-750DU-10C	350 ± 0.15% 350 ± 0.15% 350 ± 0.3% 1000 ± 0.3% 350 ± 0.15% 350 ± 0.3% 1000 ± 0.3%	E, L, LE E, L, LE
GAGE LENGTH	OVERALL LENGTH	GRID WIDTH	OVERALL WIDTH			
0.750	1.000	0.110	0.110			
19.05	25.40	2.79	2.79			
MATRIX SIZE	1.11L x 0.21W		28.2L x 5.3W			
						



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<b>GAGE PATTERN</b> Actual size shown. Enlarged when necessary for definition.		<b>GAGE DESIGNATION</b> Insert desired S-T-C number in spaces marked XX.	<b>RES. IN OHMS</b> Tolerance is increased when Option W, E, SE, LE, or P is specified.	<b>OPTIONS AVAILABLE</b>
ES = Each section S = Section (S1= Sec 1) M = Matrix	CP = Complete pattern	inch millimeter		

10CBE				Large general-purpose gage.		
SEE PATTERN BELOW						
GAGE LENGTH	OVERALL LENGTH	GRID WIDTH	OVERALL WIDTH	N2A-XX-10CBE-120 N2A-XX-10CBE-350 EA-XX-10CBE-120 WA-XX-10CBE-120 WK-XX-10CBE-350 EP-08-10CBE-120 SA-XX-10CBE-120 SK-XX-10CBE-350	120 ± 0.15% 350 ± 0.15% 120 ± 0.15% 120 ± 0.3% 350 ± 0.3% 120 ± 0.15% 120 ± 0.3% 350 ± 0.3%	W, E, L, LE, P W, E, L, LE, P W, E, L, LE, P W* W*
1.000	1.250	0.250	0.250			
25.40	31.75	6.35	6.35			
MATRIX SIZE	1.36L x 0.33W		34.5L x 8.4W			
						


<b>19CDK</b>				Long narrow pattern with tabs at ends of grid. The sidebars stabilize the backing to prevent distortion of the grid. See also 19CDZ pattern.		
SEE PATTERN BELOW						L, LE L, LE
GAGE LENGTH	OVERALL LENGTH	GRID WIDTH	OVERALL WIDTH			
1.900	2.071	0.028	0.040			
48.26	52.60	0.71	1.02			
MATRIX SIZE	2.28L x 0.26W		57.9L x 6.6W			
						


<b>19CDZ</b>				Similar to 19CDK pattern except for resistance.		
SEE PATTERN BELOW						L, LE L, LE
GAGE LENGTH	OVERALL LENGTH	GRID WIDTH	OVERALL WIDTH			
1.900	2.071	0.033	0.040			
48.26	52.60	0.84	1.02			
MATRIX SIZE	2.46L x 0.24W	62.5L x 6.1W				
N2A-XX-19CDZ-350 EA-XX-19CDZ-350 EP-08-19CDZ-350 SA-XX-19CDZ-350 SK-XX-19CDZ-10C  350 ± 0.2% 350 ± 0.2% 350 ± 0.2% 350 ± 0.4% 1000 ± 0.4%						

\*Options available but not normally recommended. See Gage Series and Optional Features datasheet for details.

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<b>GAGE PATTERN</b> Actual size shown. Enlarged when necessary for definition.		<b>GAGE DESIGNATION</b> Insert desired S-T-C number in spaces marked XX.	<b>RES. IN OHMS</b> Tolerance is increased when Option W, E, SE, LE, or P is specified.	<b>OPTIONS AVAILABLE</b>
ES = Each section S = Section (S1= Sec 1)	CP = Complete pattern M = Matrix	inch millimeter		

20CBW				For use on concrete and for strain integration on large specimens.		
SEE PATTERN BELOW						
GAGE LENGTH	OVERALL LENGTH	GRID WIDTH	OVERALL WIDTH	N2A-XX-20CBW-120 N2A-XX-20CBW-350 EA-XX-20CBW-120 WA-XX-20CBW-120 WK-XX-20CBW-350 EP-08-20CBW-120 SA-XX-20CBW-120 SK-XX-20CBW-350	120 ± 0.2% 350 ± 0.2% 120 ± 0.2% 120 ± 0.4% 350 ± 0.4% 120 ± 0.2% 120 ± 0.4% 350 ± 0.4%	W, E, L, LE, P W, E, L, LE, P W, E, L, LE, P W* W*
2.000	2.250	0.188	0.188			
50.80	57.15	4.78	4.78			
MATRIX SIZE	2.46L x 0.32W		62.5L x 8.1W			
						

40CBY				For use on concrete and for strain integration on large specimens.		
SEE PATTERN BELOW						
GAGE LENGTH	OVERALL LENGTH	GRID WIDTH	OVERALL WIDTH	N2A-XX-40CBY-120 N2A-XX-40CBY-350 EA-XX-40CBY-120 WA-XX-40CBY-120 WK-XX-40CBY-350 EP-08-40CBY-120 SA-XX-40CBY-120 SK-XX-40CBY-350	120 ± 0.2% 350 ± 0.2% 120 ± 0.2% 120 ± 0.4% 350 ± 0.4% 120 ± 0.2% 120 ± 0.4% 350 ± 0.4%	W, E, L, P W, E, L, P W, E, L, LE, P W* W*
4.000	4.250	0.160	0.160			
101.60	107.95	4.06	4.06			
MATRIX SIZE	4.49L x 0.33W		114.0L x 8.4W			
						

\*Options available but not normally recommended. See Gage Series and Optional Features datasheet for details.