

Strain Gauges Spec & Catalog



We Serve With Your Care
Strain & Vibration

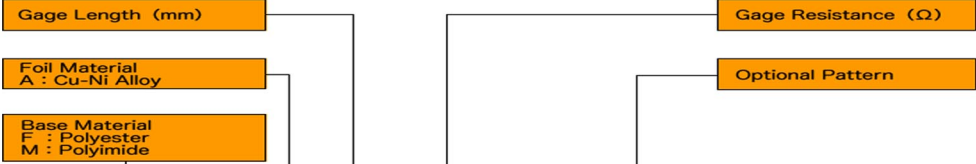


巨克富科技有限公司

Professional System Integrator



Understanding Models



N11-FA-1-120-11-P4-VSE3

Basic Patterns and Combinations

N 11	Uniaxial
N 22	Biaxial 0°/90°,stacked rosette
N 32	Triaxial 0°/45°/90°,stacked rosette
N 21	2-Element 0°/90°,plane layout
N 23	2-Element 0°,parallel layout
N 31	3-Element 0°/45°/90°,plane layout
N 34	Δ type 3-Element,plane layout
N 35	Y type 3-Element,plane layout
N 51	5-Element 0°,leads at one end
R 11	Uniaxial 90°,leads at one end
R 31	3-Element 90°,leads at one end
R 51	5-Element 90°,leads at one end
T 11	Uniaxial 0°,leads at both ends
T 24	2-Element 0°/90°,leads at both ends
U 11	Uniaxial 90°,leads at both ends
Z 11	Uniaxial 45°,for shearing strain
Z 23	2-Element ±45°,for shearing strain
Q 44	4-Element,for pressure sensor
Y 11	Uniaxial,for yield strain
C 11	For crack analysis
X 11	For crack propagation detection
P 11	For bolt spindle power measurement

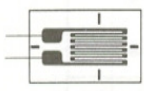
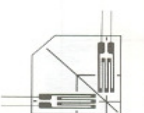
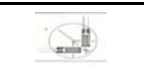
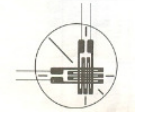
Compensated Materials (ppm/°C)

11	Common steel (11.7)
	SUS630 (10.6)
	SNCM (11.3)
16	Stainless steel / SUS304 (16.2)
	Beryllium teel (16.7)
23	Copper (16.7)
	Aluminum / 2024-T4 (23.2)
	Brass (21.0)
	Tin (23.0)

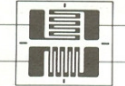
Optional Specifications / Leadwire

VS	E	Parallel vinyl-coated leadwire
	Length	Select : 1m,3m,5m
	size	Φ0.12*7 (core)
VM	E	Parallel vinyl-coated leadwire
	Length	Select : 3m,5m
	size	Φ0.12*10 (core)
VL	E	Parallel vinyl-coated leadwire
	Length	Select : 3m,5m
	size	Φ0.18*7 (core)
FE	---	Teflon-coated leadwire
	Length	3m
	size	Φ0.18*7 (core)
L	---	Polyester-coated leadwire
	Length	Select : 0.3m,0.5m
	size	Φ0.14*1 (core)
W	E	Waterproof Moulded strain gauge
	Length	Select : 1m,3m
	size	Φ0.12*7 (core)
	Resistance	0.44Ω/m (round)



Satin Gauge Pattern	Type	Resistance	Dimention				Gauge Factor
			Grid		Base		
			Length	Width	Length	Width	
	N11-FA-03-120-(11, 16, 23)	120	0.3	1.8	3.5	2.5	1.9
	N11-FA-1-120-(11, 16, 23)	120	1.0	1.5	4.0	2.5	2.0
	N11-FA-1-350-(11)	350	1.0	2.5	5.0	4.0	2.0
	N11-FA-2-120-(11, 16, 23)	120	2.0	1.6	6.0	2.5	2.0
	N11-FA-2-350-(11, 16, 23)	350	2.0	2.2	7.0	3.5	2.0
	N11-FA-5-120-(11, 16, 23)	120	5.0	1.8	9.5	3.5	2.1
	N11-FA-5-350-(11, 16, 23)	350	5.0	2.6	11.0	4.0	2.1
	N11-FA-5-1000-(11)	1000	5.0	3.5	9.5	5.0	2.1
	N11-FA-8-120-(11, 16, 23)	120	8.0	2.0	13.0	4.0	2.1
	N11-FA-8-350-(11, 16, 23)	350	8.0	4.0	14.0	6.0	2.1
	N11-FA-10-120-(11, 16, 23)	120	10.0	2.2	15.0	5.0	2.1
	N11-FA-10-350-(11, 16, 23)	350	10.0	4.5	18.0	6.5	2.1
	N11-FA-10-600-(11)	600	10.0	3.0	16.0	5.0	2.1
	N11-FA-10-1000-(11)	1000	10.0	4.5	16.0	6.0	2.0
	N11-FA-30-120-(11)	120	30.0	1.2	40.0	4.5	2.1
	N11-FA-60-120-(11)	120	60.0	2.2	65.0	5.5	2.1
	N11-MA-03-120-(11, 16, 23)	120	0.3	1.8	3.5	2.5	1.9
	N11-MA-1-120-(11, 16, 23)	120	1.0	1.5	4.0	2.5	2.0
	N11-MA-1-350-(11)	350	1.0	2.5	5.0	4.0	2.0
	N11-MA-2-120-(11, 16, 23)	120	2.0	1.8	6.0	2.5	2.0
	N11-MA-2-350-(11, 16, 23)	350	2.0	2.2	7.0	3.5	2.0
	N11-MA-5-120-(11, 16, 23)	120	5.0	1.8	9.5	3.5	2.1
	N11-MA-5-350-(11, 16, 23)	350	5.0	2.6	11.0	4.0	2.1
	N11-MA-5-1000-(11)	1000	5.0	3.5	9.5	5.0	2.1
N11-MA-8-120-(11, 16, 23)	120	5.0	2.0	13.0	4.0	2.1	
N11-MA-8-350-(11, 16, 23)	350	8.0	4.0	14.0	6.0	2.1	
N11-MA-10-120-(11, 16, 23)	120	8.0	2.2	15.0	5.0	2.1	
N11-MA-10-350-(11, 16, 23)	350	10.0	4.5	18.0	6.5	2.1	
N11-MA-10-600-(11)	600	10.0	3.0	16.0	5.0	2.1	
N11-MA-10-1000-(11)	1000	10.0	4.5	16.0	6.0	2.0	
	N21-FA-2-120-(11, 16, 23)	120	2.0	1.6	7.5	7.5	2.0
	N21-FA-5-120-(11, 16, 23)	120	5.0	1.8	12.0	12.0	2.1
	N21-FA-5-350-(11)	350	5.0	2.6	16.0	16.0	2.1
	N21-MA-2-120-(11, 16, 23)	120	2.0	1.6	7.5	7.5	2.0
	N21-MA-5-120-(11, 16, 23)	120	5.0	1.8	12.0	12.0	2.1
	N21-MA-5-350-(11)	350	5.0	2.6	16.0	16.0	2.1
	N21-FA-8-120-(11, 16, 23)	120	8.0	2.0	Ø21.0		2.1
	N21-FA-10-120-(11, 16, 23)	120	10.0	2.2	Ø25.0		2.1
	N22-FA-2-120-(11, 16, 23)	120	2.0	1.6	8.0		2.0
	N22-FA-5-120-(11, 16, 23)	120	5.0	1.8	11.0		2.1
	N22-FA-5-350-(11)	350	5.0	2.6	15.0		2.1
	N22-FA-8-120-(11, 16, 23)	120	8.0	2.0	15.0		2.1
	N22-FA-10-120-(11, 16, 23)	120	10.0	2.2	18.0		2.1

Strain Gauge Pattern	Type	Resistance	Dimension				Gauge Factor
			Grid		Base		
			Length	Width	Length	Width	
	N22-MA-2-120-(11, 16, 23)	120	2.0	1.6	Ø8.0		2.0
	N22-MA-5-120-(11, 16, 23)	120	5.0	1.8	Ø11.0		2.1
	N22-MA-5-350-(11)	350	5.0	2.6	Ø15.0		2.1
	N23-FA-5-120-(11, 23)	120	5.0	1.8	9.5	7.0	2.1
	N23-FA-5-350-(11, 23)	350	5.0	2.6	11.0	8.0	2.1
	N23-MA-5-120-(11, 23)	120	5.0	1.8	9.5	7.0	2.1
	N23-MA-5-350-(11, 23)	350	5.0	2.6	11.0	8.0	2.1
	N31-FA-2-120-(11, 16, 23)	120	2.0	1.6	9.0*9.0		2.0
	N31-FA-5-120-(11, 16, 23)	120	5.0	1.8	14.0*14.0		2.1
	N31-FA-5-350-(11)	350	5.0	2.6	16.0*16.0		2.1
	N31-MA-2-120-(11, 16, 23)	120	2.0	1.6	9.0*9.0		2.0
	N31-MA-5-120-(11, 16, 23)	120	5.0	1.8	14.0*14.0		2.1
	N31-MA-5-350-(11)	350	5.0	2.6	16.0*16.0		2.1
	N31-FA-8-120-(11, 16, 23)	120	8.0	2.0	Ø240		2.1
	N31-FA-10-120-(11)	120	10.0	2.2	Ø280		2.1
	N32-FA-2-120-(11, 16, 23)	120	2.0	1.6	Ø8.0		2.0
	N32-FA-5-120-(11, 16, 23)	120	5.0	1.8	Ø11.0		2.1
	N32-FA-5-350-(11)	350	5.0	2.6	Ø16.0		2.1
	N32-FA-8-120-(11, 16, 23)	120	8.0	2.0	Ø16.0		2.1
	N32-FA-10-120-(11, 16, 23)	120	10.0	2.2	Ø18.0		2.1
	N32-MA-2-120-(11, 16, 23)	120	2.0	1.6	Ø8.0		2.0
	N32-MA-5-120-(11, 16, 23)	120	5.0	1.8	Ø11.0		2.1
	N32-MA-5-350-(11)	350	5.0	2.6	Ø16.0		2.1
	N34-FA-2-120-(11)	120	2.0	1.6	Ø100.0		2.0
	N34-MA-2-120-(11)	120	2.0	1.6	Ø100.0		2.0
	N35-FA-2-120-(11)	120	2.0	1.6	Ø100.0		2.0
	N35-MA-2-120-(11)	120	2.0	1.6	Ø100.0		2.0
	N51-FA-1-120-(11, 16, 23)	120	1.0	1.5	12.0	4.0	2.0
	N51-FA-2-120-(11, 16, 23)	120	2.0	1.6	15.0	6.0	2.0
	N51-MA-1-120-(11, 16, 23)	120	1.0	1.5	12.0	4.0	2.0
	N51-MA-2-120-(11, 16, 23)	120	2.0	1.6	15.0	6.0	2.0
	R11-FA-1-120-(11, 16, 23)	120	1.0	2.2	5.5	3.0	2.0
	R11-FA-2-120-(11, 16, 23)	120	2.0	1.8	6.0	3.5	2.0
	R11-MA-1-120-(11, 16, 23)	120	1.0	2.2	5.5	3.0	2.0
	R11-MA-2-120-(11, 16, 23)	120	2.0	1.8	6.0	3.5	2.0

Satin Gauge Pattern	Type	Resistance	Dimention				Gauge Factor
			Grid		Base		
			Length	Width	Length	Width	
	R51-FA-1-120-(11, 16, 23)	120	1.0	0.5	11.0	4.0	2.0
	R51-FA-2-120-(11, 16, 23)	120	2.0	0.8	15.0	4.5	2.0
	R51-MA-1-120-(11, 16, 23)	120	1.0	0.5	11.0	4.0	2.0
	R51-MA-2-120-(11, 16, 23)	120	2.0	0.8	15.0	4.5	2.0
	T11-FA-1-120-(11, 16, 23)	120	1.0	1.5	5.5	3.0	2.0
	T11-FA-2-120-(11, 16, 23)	120	2.0	2.5	8.0	4.0	2.0
	T11-FA-5-120-(11, 16, 23)	120	5.0	6.0	20.0	10.0	2.1
	T11-MA-1-120-(11, 16, 23)	120	1.0	1.5	5.5	3.0	2.0
	T11-MA-2-120-(11, 16, 23)	120	2.0	2.5	8.0	4.0	2.0
	T11-MA-5-120-(11, 16, 23)	120	5.0	6.0	20.0	10.0	2.1
	U11-FA-1-120-(11, 16, 23)	120	1.0	1.2	5.5	3.0	2.0
	U11-FA-2-120-(11, 16, 23)	120	2.0	1.8	8.0	4.0	2.0
	U11-FA-5-120-(11, 16, 23)	120	5.0	5.6	20.0	10.0	2.1
	U11-MA-1-120-(11, 16, 23)	120	1.0	1.2	5.5	3.0	2.0
	U11-MA-2-120-(11, 16, 23)	120	2.0	1.8	8.0	4.0	2.0
	U11-MA-5-120-(11, 16, 23)	120	5.0	5.6	20.0	10.0	2.1
	T24-FA-2-120-(11, 16, 23)	120	2.0	2.5	8.0	6.0	2.0
	T24-FA-5-120-(11)	120	5.0	6.0	20.0	15.0	2.1
	T24-MA-2-120-(11, 16, 23)	120	2.0	2.5	8.0	6.0	2.0
	T24-MA-5-120-(11)	120	5.0	6.0	20.0	15.0	2.1
	Q44-FA-10-350-(11)	350	Ø9.5		Ø10.0		
	Q44-FA-14-350-(11)	350	Ø13.0		Ø14.0		
	Q44-MA-10-350-(11)	350	Ø9.5		Ø10.0		
	Q44-MA-14-350-(11)	350	Ø13.0		Ø14.0		
	Z11-FA-1-120-(11)	120	1.0	2.6	6.0	3.0	2.0
	Z11-FA-2-120-(11, 16, 23)	120	2.0	4.0	13.0	5.0	2.0
	Z11-FA-2-350-(11)	350	2.0	4.0	15.0	5.0	2.0
	Z11-FA-5-120-(11)	120	5.0	2.6	15.0	10.0	2.0
	Z11-MA-1-120-(11)	120	1.0	2.6	6.0	3.0	2.0
	Z11-MA-2-120-(11, 16, 23)	120	2.0	4.0	13.0	5.0	2.0
	Z11-MA-2-350-(11)	350	2.0	4.0	15.0	5.0	2.0
	Z11-MA-5-120-(11)	120	5.0	2.6	15.0	10.0	2.0
	Z23-FA-2-120-(11,16,23)	120	2.0		13.0	7.0	2.0
	Z23-FA-5-120-(11)	120	5.0		15.0	14.0	2.1
	Z23-FA-5-350-(11)	350	5.0		16.0	14.0	2.1
	Z23-MA-2-120-(11,16,23)	120	2.0		13.0	7.0	2.0
	Z23-MA-5-120-(11)	120	5.0		15.0	14.0	2.1
	Z23-MA-5-350-(11)	350	5.0		16.0	14.0	2.1
	C11-FA-5-1	1			5.0	27.0	
	C11-FA-14-1	1			6.0	36.0	
	X11-FA-30-120	120	30.0	0.8	35.0	4.0	
	X11-FA-50-120	120	50.0	1.0	55.5	4.2	
	Y11-FA-2-120	120	2.0	1.7	7.5	3.5	2.0
	Y11-FA-5-120	120	5.0	1.6	11.0	3.5	2.0
	Y11-FA-5-120	120	8.0	2.1	14.0	5.0	2.0
	P11-FA-3-120-(11)	120	3.0		10.0	Ø2.2	2.1