

POST-YIELD STRAIN GAUGE

series "YEF"



Compatible adhesive & Operational temperature




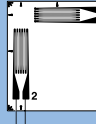

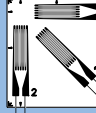
CN : -20~+80°C

CN-Y : -20~+80°C

Strain limit in room-temperature 10~15%

Operational temperature -20~+80°C

LARGE STRAIN MEASUREMENT

Gauge pattern	Type	Gauge size		Backing		Resistance in Ω	
		L	W	L	W		
<p>This gauge is designed for measurement of large strain up to 10 to 15%. Also it is durable to the measurement of repeated strain in elastic range (at strain level $\pm 1500 \times 10^{-6}$) like as ordinary strain gauge. However it is not applicable to the measurement of repeated strain in large range. The CN-Y is recommended as an adhesive if the measurement is made after a few days or longer of strain gauge bonding. Large strain measurement is possible even after one year of bonding the gauge with the CN-Y adhesive. (Provided that the specimen is stored in room temperature.)</p> <p>●Single-element (G.F. 2.1 approx.)</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  YEFLA-2 </div> <div style="text-align: center;">  YEFLA-5 </div> </div> <p>●90° 2-element Cross (G.F. 2.1 approx.) Plane type</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  YEFCA-2 </div> <div style="text-align: center;">  YEFCA-5 </div> </div> <p>●45°/90° 3-element Rosette (G.F. 2.1 approx.) Plane type</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  YEFRA-2 </div> <div style="text-align: center;">  YEFRA-5 </div> </div> <p>Each package contains 10 gauges.</p>		L : length W : width (Unit : mm)					
	Single-element	YEFLA-2	2	1.8	7.5	4.0	120
		YEFLA-5	5	2.0	12.0	4.0	120
	90° 2-element Cross, Plane type	YEFCA-2	2	1.8	10.0	10.0	120
		YEFCA-5	5	2.0	14.5	14.5	120
	45°/90° 3-element Rosette, Plane type	YEFRA-2	2	1.8	10.0	10.0	120
		YEFRA-5	5	2.0	14.5	14.5	120

Leadwire-integrated YEF series (made-to-order)

Lead wires	Operational temperature range	Gauge type exemplified	Colors of Lead wire
2-wire Parallel vinyl wire	-20~+80°C	L : YEFLA-2-3L	Grey
3-wire Parallel vinyl wire	-20~+80°C	LT : YEFLA-2-3LT	Blue (independent)

POST-YIELD STRAIN GAUGE

series "YF"



Compatible adhesive & Operational temperature
 CN : -20~+80°C
 CN-Y : -20~+80°C
 Strain limit in room-temperature 15~20%

Operational temperature -20~+80°C

LARGE STRAIN MEASUREMENT

Gauge pattern	Type	Gauge size		Backing		Resistance in Ω	
		L	W	L	W		
<p>This gauge is designed for measurement of large strain up to 15 to 20%. It is not applicable to the measurement of repeated strain either in elastic nor in large range. The CN-Y is recommended as an adhesive if the measurement is made after a few days or longer of strain gauge bonding. Large strain measurement is possible even after one year of bonding the gauge with the CN-Y adhesive.</p> <p>●Single-element</p> <p>YFLA-2 </p> <p>YFLA-5 (X2)</p> <p>YFLA-10 </p> <p>YFLA-20 </p> <p>• Each package contains 10 gauges.</p>	Single-element	L : length W : width (Unit : mm)					
		YFLA-2	2	1.8	7.5	4.0	120
		YFLA-5	5	2.0	12.0	4.0	120
		YFLA-10	10	2.6	16.6	4.9	120
		YFLA-20	20	1.8	26.0	3.7	120

POST-YIELD STRAIN GAUGE

series "YUF"



Compatible adhesive & Operational temperature
 CN : -20~+80°C
 CN-Y : -20~+80°C
 Strain limit in room-temperature 20~30%

Operational temperature -20~+80°C

LARGE STRAIN MEASUREMENT

Gauge pattern	Type	Gauge size		Backing		Resistance in Ω	
		L	W	L	W		
<p>This gauge is designed for measurement of large strain only up to 20 to 30%. This YUF series is not applicable to the measurement of repeated strain in both elastic and large range.</p> <p>●Single-element</p> <p> YUFLA-2</p> <p> YUFLA-5</p> <p>• Each package contains 10 gauges.</p>	Single-element	L : length W : width (Unit : mm)					
		YUFLA-2	2	1.9	8.0	3.0	120
		YUFLA-5	5	1.7	11.0	3.0	120

Point

●YUF/YEF/YF/F applications

Gauge series	Strain limit	Fatigue limit at room temperature	Change of apparent strain due to cyclic loading of large strains
YUF	20~30% elongation	Not applicable	Not applicable
YEF	10~15% elongation	5×10 ⁵ cycles	2000×10 ⁻⁶ strain/10 cycles
YF	15~20% elongation	1×10 ² cycles	2000×10 ⁻⁶ strain/10 cycles
F	3%	1×10 ⁶ cycles	400×10 ⁻⁶ strain/10 cycles

Fatigue limit : Cyclic loading with ±1500×10⁻⁶ strain, 15Hz, Apparent strains exceeding 100×10⁻⁶ strain

Large strain : ±10000×10⁻⁶ strain, 4 min./cycle,

Please note that YEF and YF series can not be used for cyclic large strain measurement.