






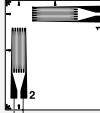
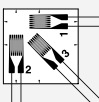
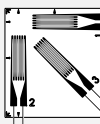
ε Series "YEF"



Description

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 $\pm 1500 \times 10^{-3}$) 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;">  YEFC A-2 </div> <div style="text-align: center;">  YEFC A-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>		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	YEFC A-2	2	1.8	10.0	10.0	120
		YEFC A-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

Each package contains 10 gauges.

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

Lead wires	Operational temperature range	Gauge type examples	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)

YUF/YEF/YF/F applications info

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 $\pm 1500 \times 10^{-6}$ strain, 15Hz, Apparent strains exceeding 100×10^{-6} strain

Large strain : $\pm 10000 \times 10^{-6}$ strain, 4 min./Cycle.

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