

CRACK DETECTION GAUGES series FAC

Operating temperature range

-30°C  +80°C

Applicable adhesives

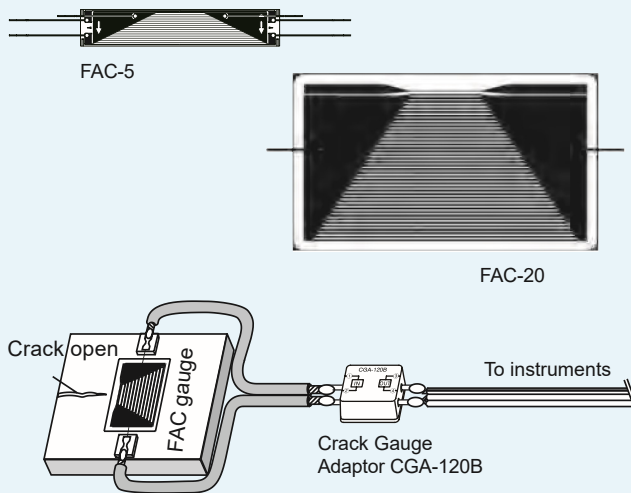
CN	-30 ~ +80°C
RP-2	-30 ~ +80°C

CRACK PROPAGATION MEASUREMENTS

Gauge pattern

These gauges are designed to measure the propagation speed of fatigue crack in a metal specimen. The gauges are bonded with an adhesive on the position where the crack is initiated or the crack initiation is expected. The grids of the gauges, which are aligned with interval of 0.1mm or 0.5mm, are disconnected one by one with the propagation of the crack. The gauges are used together with the crack gauge adaptor CGA-120B, and the disconnection of one grid is measured as the change of approx. 45 or 40×10⁻⁶ strain by a strainmeter.

Crack Gauges



CRACK GAUGES

Each package contains 10 gauges.

Gauge type	FAC-5	FAC-20
Measuring range	4.5mm	20mm
Gauge resistance	approx. 1Ω	
Grid interval	0.1mm	0.5mm
Number of grids	46	41
Output per grid	approx. 45 με	approx. 40 με
Operating temperature	-30 ~ +80°C	
Backing size	28 x 5mm	43 x 25mm

Crack Gauge Adaptor CGA-120B

Minimum order is 1 piece or more.

Measuring point	1
Allowable temperature	-30 ~ +80°C
Bridge connection	Quarter bridge 3-wire method 120Ω
Dimension	20(W) x 15(H) x 15(D) mm (except projection parts)
Weight	5g

Crack Gauge Adaptor CGA-120B



STRESS GAUGES series SF

Operating temperature range

-20°C  +200°C

Temperature compensation range

+10°C  +100°C

Applicable adhesives

NP-50B	-20 ~ +200°C
C-1	-20 ~ +200°C
CN	-20 ~ +120°C

Suffix code for temperature compensation materials

-11: Mild steel (ferritic) -17: Stainless steel -23: Aluminium

AXIAL STRESS MEASUREMENT

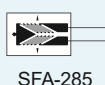
Gauge pattern

Poisson's ratio
of specimen

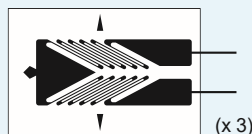
Basic type

Gauge size
L WBacking
L WResist-
ance Ω

These gauges are intended to measure the stress in an optional direction of the specimen in plane stress field. The gauges are sensitive not only in these axial direction but also in these transverse direction, and the sensitivity ratio of the transverse direction to the axial directions is equal to the Poisson's ratio of the specimen material. In addition, the gauges are not sensitive to the shearing strain. Accordingly, the output of the gauges is proportional to the stress in the axial direction. The gauges are available in three types depending on the Poisson's ratio of the specimen material.



SFA-285



(x 3)

0.285

SFA-285-11

0.305

SFA-305-17

0.330

SFA-330-23

Each package contains 10 gauges.



Integral leadwire is available.

Refer to pages 19~20 for applicable integral leadwires.