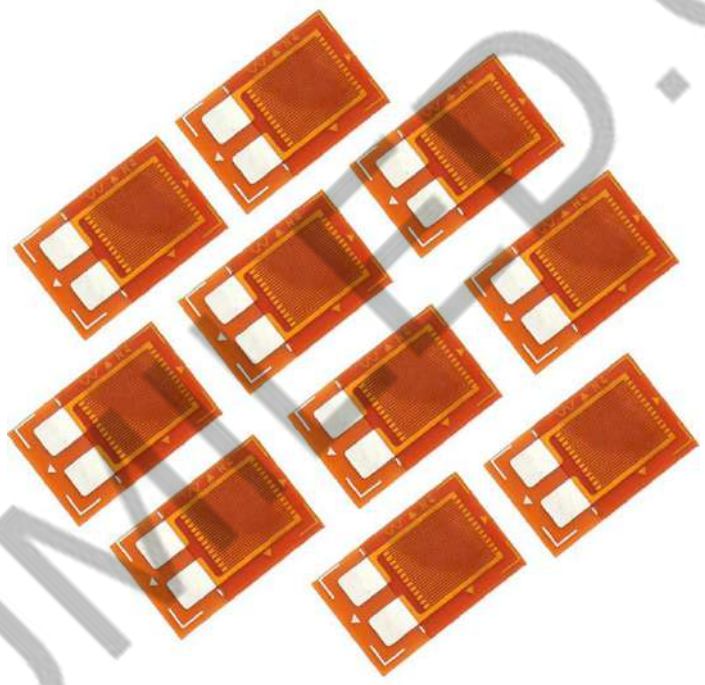
Foil Resistance Strain Gauge

350 ohm BF350-3AA

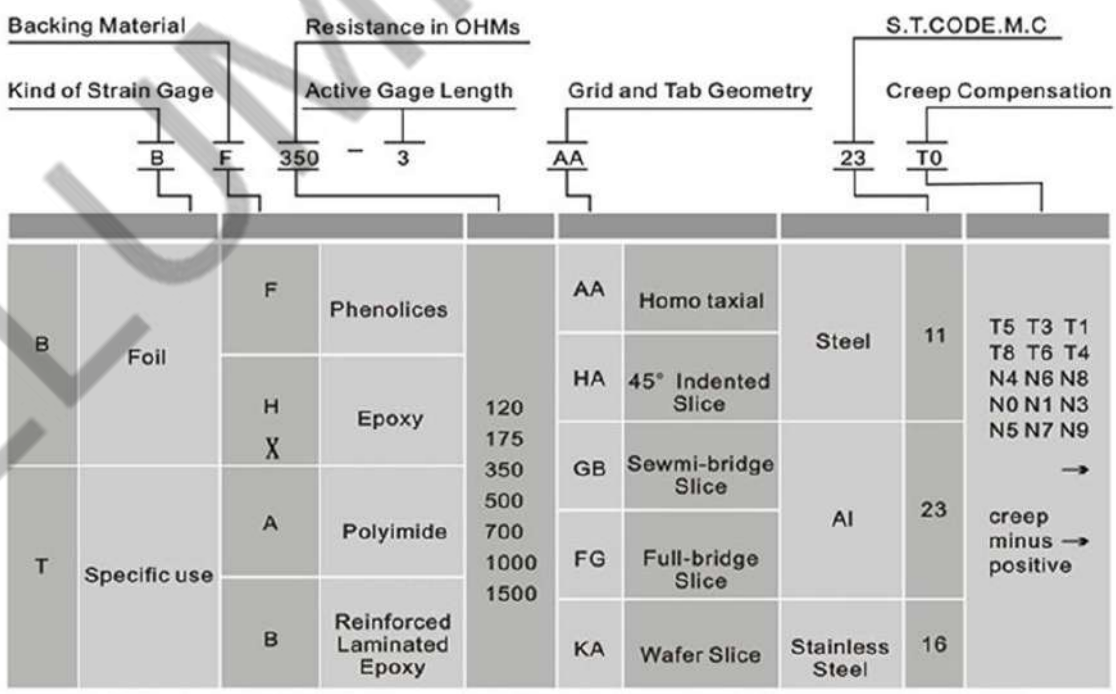


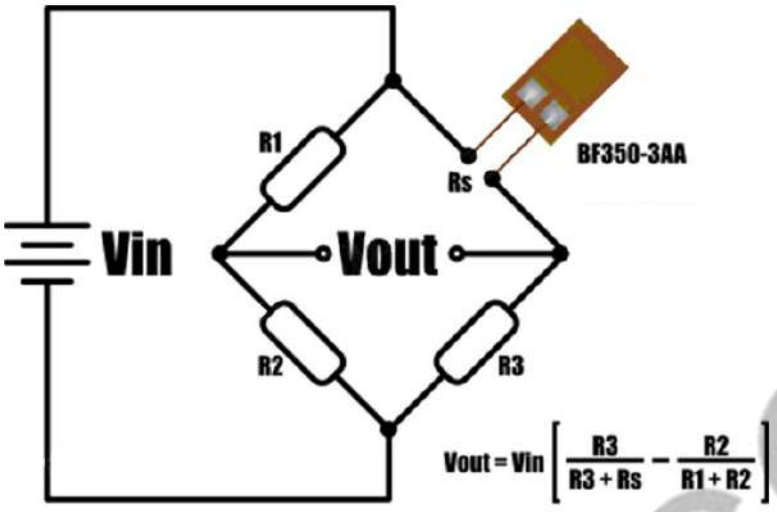
Introduction

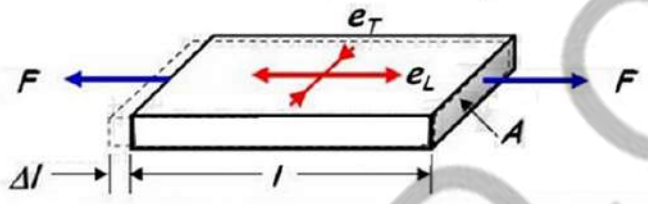
A resistive strain gauge sensor with a 350-ohm nominal resistance which varies when a force is applied. By measuring the change in the sensor's resistance, a measurement of the force applied to it can be obtained. The strain gauges exhibit small changes in resistance. Usually used in general metal materials and other similar elastomers.

Parameters

Type	BF350-3 AA
Resistance	350 Ω (typ.)
The Basal Material	Epoxy-Modified Phenolic
Basal Material Thickness	32±1(um)
Grid Material	Constantan
Insulation resistance	10000 Ω
Sensitivity Coefficient	2.1
Sensitivity Coefficient Dispersion	≤±1%
Transverse effect coefficient	0.4%
Strain Limit	2.0%
Fatigue Lifetime	≥1M
Size	7.1 X 4.5mm/0.28 X 0.18inch(L*W)
Working Temperature	-30~+80℃
Temperature Compensation	Aluminium
Temperature Compensation Coefficient	9,11,16,23,27







Material resistivity

$$R = \frac{\rho l}{A}$$

← *Element length*

← *Cross section area*

$$\Delta R = \left(\frac{\partial R}{\partial l}\right)\Delta l + \left(\frac{\partial R}{\partial A}\right)\Delta A + \left(\frac{\partial R}{\partial \rho}\right)\Delta$$