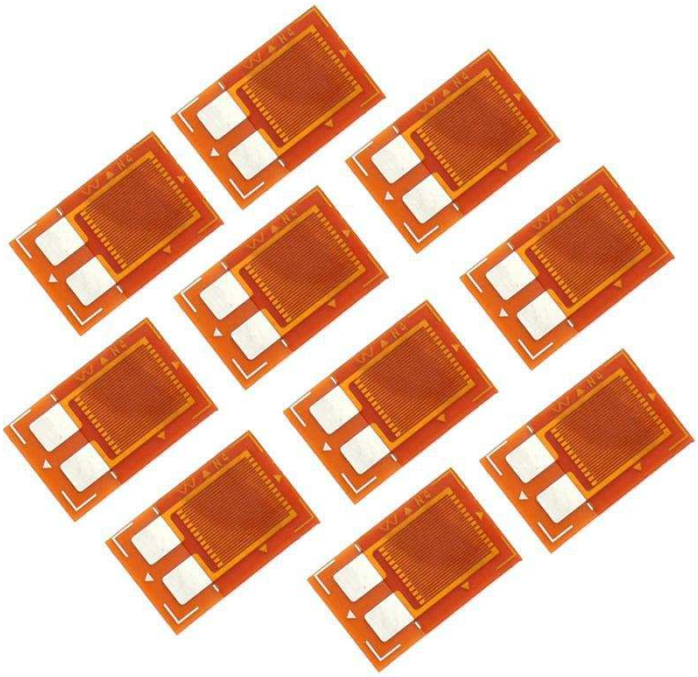
# Foil Resistance Strain Gauge

# 350 ohm BF350-3AA

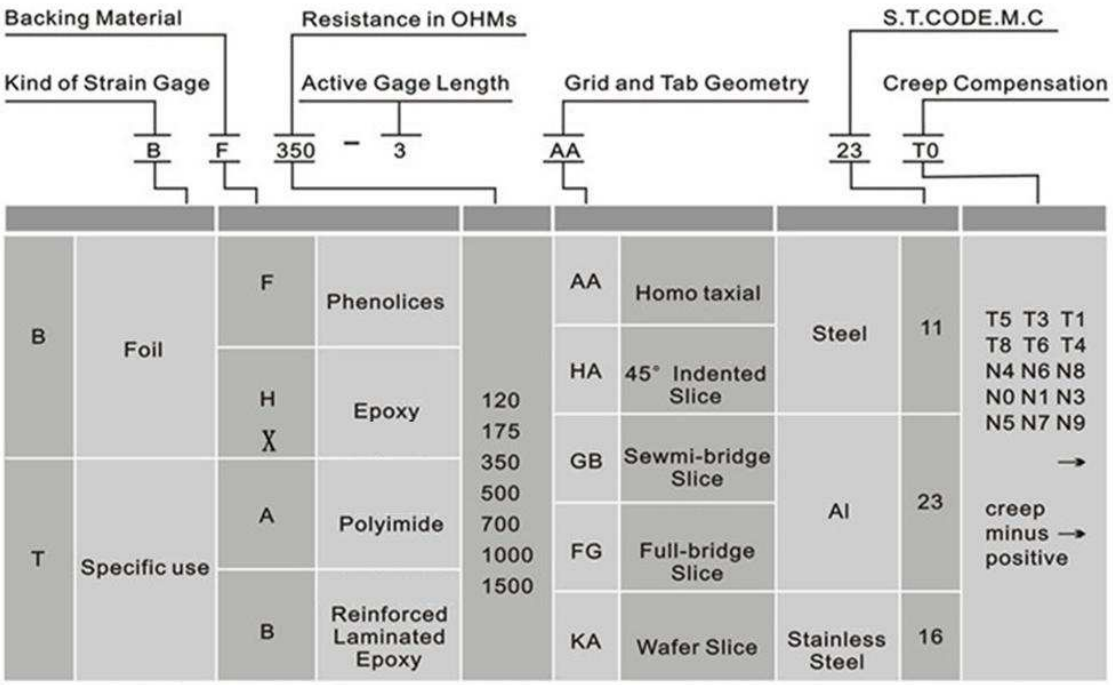


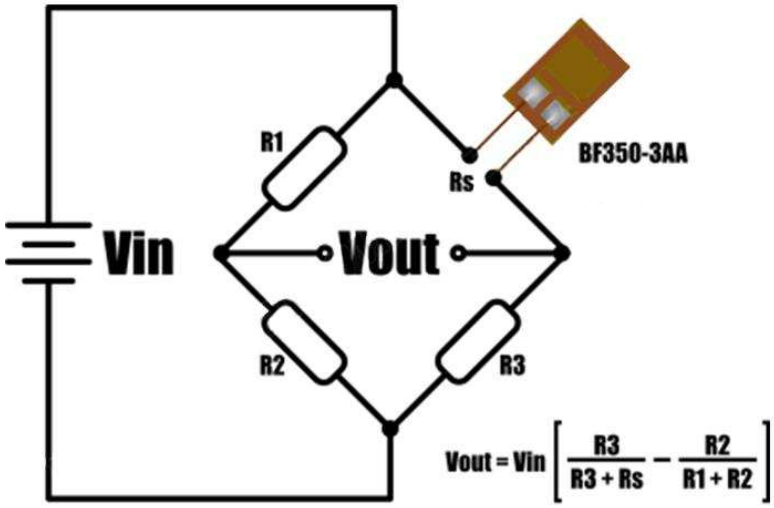
## Introduction

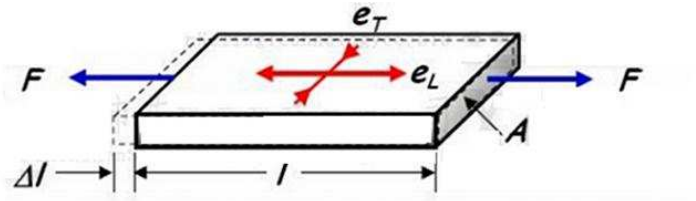
A resistive strain gauge sensor with a 350-ohm nominal resistance which varies when a force is applied. By measuring the change in the sensor's resistance, a measurement of the force applied to it can be obtained. The strain gauges exhibit small changes in resistance. Usually used in general metal materials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

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