

EMBEDMENT STRAIN GAUGE WITH ROSETTE



Model SI-SMG-001/002

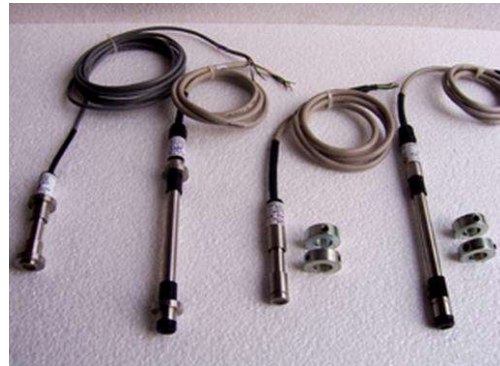
SysTel INDIA model SI-SMG-001/002 series strain gauges have a unique integral magnet design which incorporates a miniature magnet coil assembly positioned inside a stainless steel tube of diameter 15mm. The same tube has a high tensile strength, heat-treated and tempered steel wire stretched between two end blocks. The wire is sealed in the tube by means of a set of double O-rings. This feature, when compared to conventional externally mounted magnet design has the following advantages:

- Robust and sturdy construction.
- High sensitivity and reliability.
- Long term stability.
- Easy installation and minimum protection needed after installation.

Externally mounted magnet assembly on the other hand is prone to corrosion as it is made in two halves, which are externally clamped on to the tube. This does not ensure proper sealing at the joint. Thus water can seep and with time cause corrosion on the magnet, resulting in failure.

Embedment type strain gauges are provided with built in stainless steel flanges while the groutable and arc weldable type have the same design. By the use of appropriate type of mounting blocks, the same strain gauge can be arc welded on to the steel structures such as tunnel linings and supports or grouted or epoxy bonded on the surface of concrete structures.

Provision of gas discharge tube protects the sensor against surge and lightning.



SI-SMG-001E



SPECIFICATIONS:

Model	SI-SMG-001	SI-SMG-002
Embedment	SI-SMG-001E	SI-SMG-002E
Groutable	SI-SMG-001G	SI-SMG-002G
Gauge Length	100 mm.	125 mm.
Gauge Factor	$1.592 \times 10^{-3} \mu \text{ strain/Hz}^2$	$2.487 \times 10^{-3} \mu \text{ strain/Hz}^2$
Range	$\pm 1500 \mu \text{ strain}$	
Sensitivity	$1 \mu \text{ strain}$	
Material	Stainless Steel	
Coil Resistance	140 – 160 Ohm @ 25°C	
Cable	1 m. 4 cores shielded.	

ACCESSORIES:

1. 5 position rosette for mounting strain gauge at different angles and in different planes.
2. No-stress container to evaluate strain produced due to factors other than load.
3. Brackets for arc welding on structures or grouting.