

1. Introduction

The Strain-Ring SML-RS is based on Strain Gauges. The Strain Gauges are located under the metal-foils inside the ring. Each half has one gauge to compensate for bending. The gauges should be connected in a half-bridge. They can measure bending compensated (Bild2) or only the bending (Bild3, below). The Strain-Ring is all inoxidable.

Caution: Do not scratch the metal foil with sharp or hard instruments.

2. Delivery

The Strain-Rings are delivered in plastic bags with two screws (M8x25). The gauge-factor of the Strain-Gauges is indicated on the label with the Serial-Number. Every SML-RS is delivered with calibration-certificate (according to ISO 9000), which is valid as long as the strain gauge has 350 Ohm.

WARRANTY on mechanical parts 2 years-excluding strain gages and foil. This parts have no warranty because the life-time depends largely on the proper mounting. Read therefore this mounting instruction carefully.
Typically, 200...5000 mountings can be achieved

3. Mounting

material needed

- Torque screwdriver
- eventually Mounting-Box or Strain-Gauge amplifier
- Cleaning agent and towel

The tolerance of the tie-bar should be D-h7...f7. The diameter D of the SML-RS has to be the same as the tie bar diameter. In some cases, smaller diameters up to 2mm can be measured.

- 3.1 Place of mounting: at least 1 x diameter away from plate or other tie bar touching part.
- 3.2 Open the SML-RS and place it around the tie-bar at the desired location (be aware of moving platens and tools). The mounting location has to be cleaned and grease free.
- 3.3 Insert the two screws into the threads and tighten them slightly and evenly. The lifetime of the ring depends largely on the proper mounting without shear stress rectangular to the gages.
- 3.4 Make sure that the two slots between the ring halves have the same dimension (ca. 2..3mm). Tighten now the two screws with a torque of 3 Nm.
- 3.5 The Strain-Ring is now operational and the cables can be connected. Open and close the machine 2...4 times to the full load before measure, to allow setting.
- 3.6 Proceed now as with any other Strain-Gauge $2 \times \frac{1}{4}$ Bridge. During operation, the sensor must be reset after each cycle. We have matching amplifiers available.

4. Remove/Repair

The two screws have to be loosened and removed completely.

If a strain gage is broken (no 350 Ohm at the pins), the hole ring can be sent back to the manufacturer and will be overhauled for a small fee, including new calibration sheet. The SML-RS will then be like new.

Dimensions & Wiring

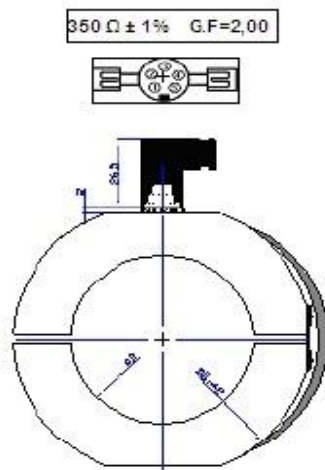


Bild 2

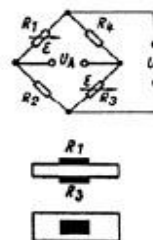


Bild3

