

# SML-DSB

## STRAIN BAR

### Integrated Digital Amplifier



### Description

Specially developed Strain Gauges are pressed onto the measured surface, the measurement is instantly without any calibration needed.

**The surface at the measuring area** shall be free of layers of materials other than the measured material (e.g. rust, color, scale, etc.). It has not to be chemically clean or mechanically treated.

**Creeping of the strain gauges** may occur with not ideal surfaces or bad mounting. This can easily be detected by the signal creeping under load and without load towards zero in both cases.

The **Zero-offset** of the pressed-on strain-gauges is after mounting never at zero. This does not influence the sensitivity or signal amplitude. The integrated amplifier features offset function.

The **mounting** is very easy with a torque-screw-driver. The sensor is simply screwed onto the surface with a given 3 Nm torque.

For machine-control, our sensor were integrated rugged and industrial strain-gauge amplifiers of the with reset function recommended.

For **machine-control**, e.g. press or stamping machines, two can be screwed to the machine and connected to one amplifier where the medium value of both sensors is measured and controlled.

The **dimensions** can be adapted to the customers needs. The standard dimensions are as follows:

Housing	Thread	Thread Dist.
85 x 22 x 24 mm	M4	65mm

### TECHNICAL DATA

2x1/4 Bridge	350Ω
Linearity	< 0.5% FS
Hysteresis	< 0.5% FS
Repeatability	< 0.2% FS
Measuring range	Standard 0~500 µε
Power Supply	22~24 VDC
Input Sensitivity	± 0.1 mV/V
Excitation (Bridge Supply)	5.0V
Analog output	± 10V FS
Working temperature	-20~+ 65 °C
Reset voltage	24 V

- Easy an accurate strain measurement on surfaces
- Brace Strain-Link onto the surface and measure.
- No surface treatment necessary  
The sensor use an integrated amplifier and use an aluminum housing is EMC safe.
- **1% accuracy – without calibration**
- For machine-control, Mold-and tool protection or general strain measurement.
- Strain gauges not bonded anymore – thus multiple use and no soldering!
- Ideal for cyclical applications.
- **For Die Height automatic adjustment.**
- **For Clamping Force on line control.**
- **For Clamping Force presetting.**
- **For Machine overload alarm.**

The mounting is extremely easy: The sensor is screwed with a given torque onto the surface. The output is directly in Volt, as with all our strain-sensors. 10Volt output are usually 500 micro-strain.

The surface at the measuring spot does not have to be chemically clean or mechanically treated in any way. Just clean it with some acetone. The sensors are made in aluminum materials.