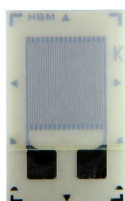


Strain gauge 1-LA11K3/350_E

Item number: 12174



Strain gauges for the construction of sensors. The carrier material of this strain gauge is PEEKF with 40µm thickness. The constantan measuring grid (3 ... 5µm) is covered with PEEKF foil, also with 40µm thickness. As a result, this strain gauge type is generally slightly thicker than comparable types with polyimide carrier and cover. In terms of handling, this DMS type is therefore somewhat more robust. Unlike polyimide, PEEKF is not hygroscopic, so that additional sealing of the upper polyimide cover film with epoxy resin is not necessary.

Due to the combination of PEEKF and Konstantan measuring grid, this Strain gauge type is particularly stable in the zero signal and is characterized by very low temperature-induced drift of the zero signal. The temperature-related drift due to expansion of the sensor body is compensated in a wide range from -10 ° C to + 120 ° C for the materials steel (variant 1) and aluminum (variant 3). The permitted operating range is from -40 ° C to + 200 ° C. There are 10^7 load cycles with $\pm 1000\mu\text{m}/\text{m}$ achieved with a shift of the zero signal less than $300\mu\text{m}/\text{m}$.

The gage-factor of the Transduce strain gauges is approx. 2 and is not individualized unlike as for stress analysis gages. The tolerance of the gage factor for measuring grids greater than 1.5mm grid length is $\pm 1.0\%$.

Technical Data

Strain gauge		Einheit
Purpose of measurement	Aufnehmerbau	
Type	Metallfolie	
Number of grids	1	
Grid width	3	mm
maximum width	4.5	mm
Grid length	3	mm
maximum length	7.3	mm
Resistance	350	Ohm
Tolerance resistance	0,3 %	
Connection	Solder pad	
Temperature adjustment	Stahl	
Substrate	PEEK	