

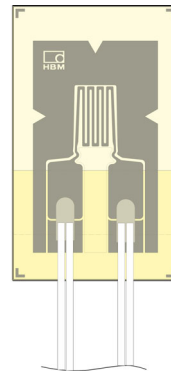
DATA SHEET

LE11

Encapsulated strain gages with stranded connection wire

SPECIAL FEATURES

- For challenging applications
- Dust-tight and waterproof as per equipment protection level IP67
- Encapsulation with modified PEEK resistant against chemicals
- Excellent zero signal stability with changing moisture
- Fitted with 1 m fluoropolymer-insulated connection wire as standard
- 2-wire or 4-wire configuration as required



SPECIFICATIONS

Strain gage construction		Foil strain gage, encapsulated, IP67, resistant against chemicals ¹⁾
Measuring grid		
Material		Constantan
Length	mm	3
Carrier		
Material		Modified PEEK
Thickness	µm	30 ±5
Covering agent		
Material		Modified PEEK
Connection cable, 1 m long		2 or 4 fluoropolymer-insulated stranded wires
Nominal (rated) resistance	Ω	350
Resistance tolerance per package	%	±0.5
Gage factor		approx. 2
Nominal (rated) value of gage factor		Specified on each package
Gage factor tolerance	%	±1
Reference temperature	°C	+23
Operating temperature range	°C	-200 ... +180
Transverse sensitivity at reference temperature when using CA80 adhesive	%	0.25

Minimum radius of curvature, longitudinal and transverse, at reference temperature	mm	3
Maximum elongation at reference temperature	µm/m	±50,000 (Δ ±5%)
Fatigue life at reference temperature when using CA80 adhesive Number of load cycles L_w achievable with alternating strain $\epsilon_w = \pm 1,000 \text{ µm/m}$ and variation of zero point $\epsilon_m \Delta \leq 300 \text{ µm/m}$ $\epsilon_m \Delta \leq 300 \text{ µm/m}$		$>> 10^7$ (test was aborted at 10^7) $> 10^7$ (test was aborted at 10^7)
Suitable bonding material²⁾		CA80, EP310N, X280

1) Modified PEEK is only susceptible to attack from concentrated sulfuric or nitric acids.

2) Take into account temperature limits and resistance against chemicals in the adhesives.