

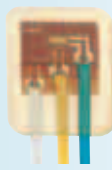


Series V Strain Gages

- low cost encapsulated strain gages
- 3m cable, PVC insulated
- high mechanical protection

Order designation of preference types	Nominal resistance Ω	Dimensions (mm) [1 inch = 25.4 mm]				Max. perm. effective bridge supply voltage V	LV41 Contents per package: 10 pcs. XV91 T-rosette 0°/90° Contents per package: 5 pcs.	Temperature variation adjusted to steel with $\alpha = 10.8 \cdot 10^{-6}/K$ RV91 0°/45°/90° rosette Contents per package: 5 pcs.
		Measuring grid		Measuring grid carrier				
Steel	Ω	a	b	c	d	V		
1-LV41-3/120	120	3	1.1	19	12	2	  	
1-XV91-3/120	120	3	1.4	24.5	20.5	2		
1-RV91-3/120	120	3	1.25	24.5	20.5	1		

Technical Data

strain gage construction		foil strain gage with embedded measuring grid in plastic resin
measuring grid material thickness	μm	Constantan foil 5
carrier material		polyimide
base thickness	μm	45 ± 10
cover thickness	μm	25 ± 5
total thickness	mm	1.5
connections		PVC coated stranded wire for connection, 3m in length, two wire connection
nominal resistance	Ω	120; connection leads inclusive
resistance tolerance	%	± 0.5
gage factor		approx. 2
nominal value of gage factor		specified on each package
gage factor tolerance	%	± 1
temperature coefficient of the gage factor	1/K	ca. (115 ± 10) · 10 ⁻⁶
nominal value of temperature coefficient of gage factor		specified on each package
reference temperature	°C	23
operation temperature range		
for static, i.e. zero point related measurements	°C	-30 ... + 105
for dynamic, i.e. not zero point related measurements	°C	-30 ... + 105
temperature variation		specified on each package
Adjustment of temperature variation within range	°C	-10 ... + 105
maximum elongation ¹⁾		
bat reference temperature using adhesive Z 70 on strain gage type LV41-3/120		
strain limit ϵ for positive direction	$\mu\text{m}/\text{m}$	20 000 (Δ 2 %))
strain limit ϵ for negative direction	$\mu\text{m}/\text{m}$	50 000 (Δ 5 %))
minimum radius of curvature, longitudinal and transverse, at reference temperature	mm	10
usable bonding materials		
cold curing adhesives		Z 70; X 60; X280

¹⁾ The data depend on the various parameters of the specific application and are therefore stated for representative examples only.