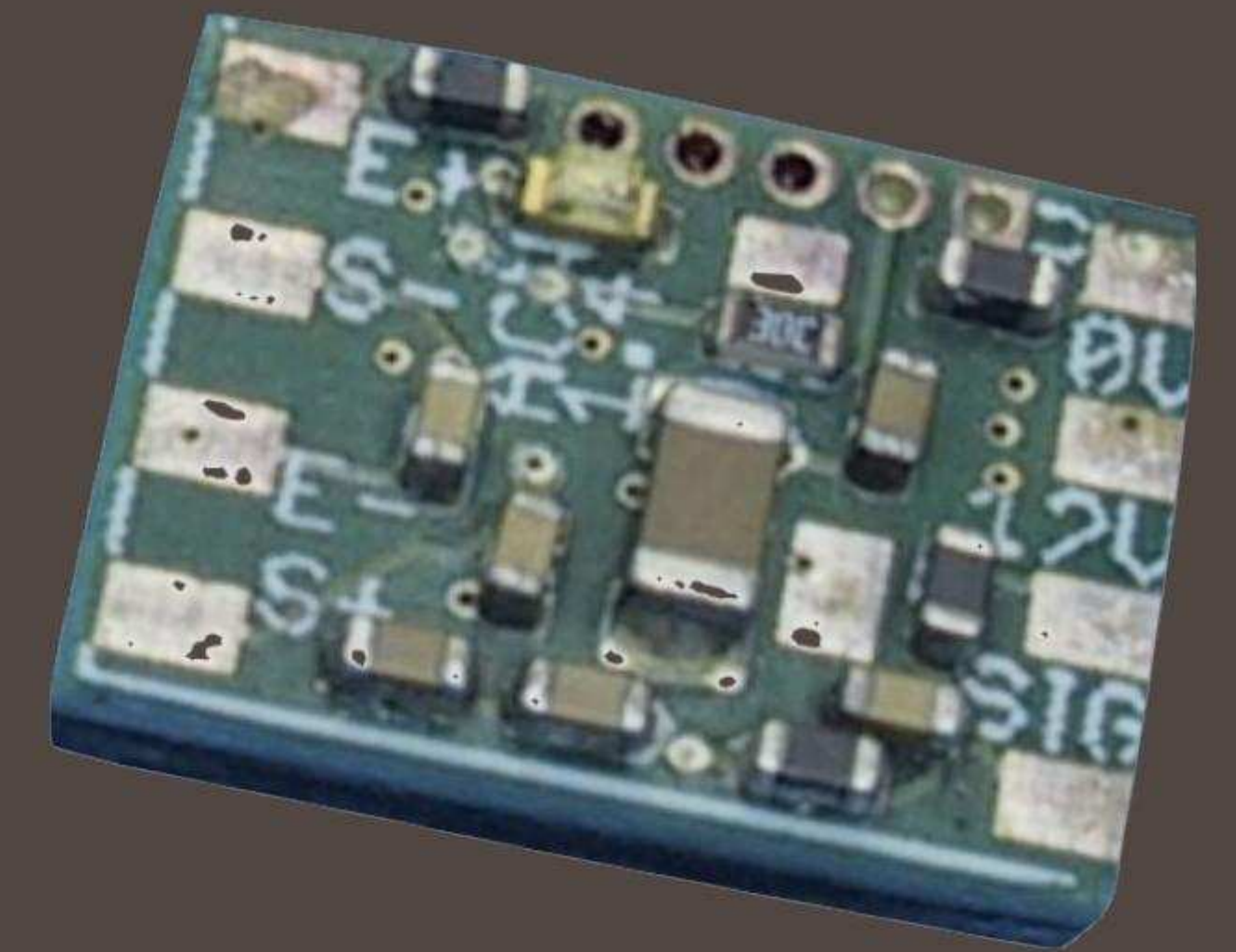




XN3

Digital controlled strain gauge amplifier

Supply voltage
Supply current (amplifier only)
Bridge supply voltage (internal)
Bridge gauge impedance
Output signal

5 to 16 V
 3.5 mA
 5 V
 120 to 1000 Ω
 0 – 5 V

Offset

From 0.25 to 2.5 V
 Adjustable by VPROG pin

Gain

From 70 to 1250 V/V
 Adjustable by VPROG pin
 90 Hz (default) up to 100 KHz
 Adjustable by "Bandwidth" capacitor

Cut off frequency (1 pole filter)

Temperature compensation

Internal Temperature probe
 (NTC) removable for remote
 application

Offset drift with temperature

< 10 mV

Gain drift with temperature

0.2 %

Max initial recommended

bridge unbalance 120 Ω
 350 Ω
 1000 Ω

0.6 mV
 2 mV
 5 mV

Dimensions XN3

XN3 -P (120 Ω groups)

Material

Protection

Weight

Shock

Operating temp

Storage temp

13x10x4 mm

17x10x4 mm

PCB + Epoxy encapsulation

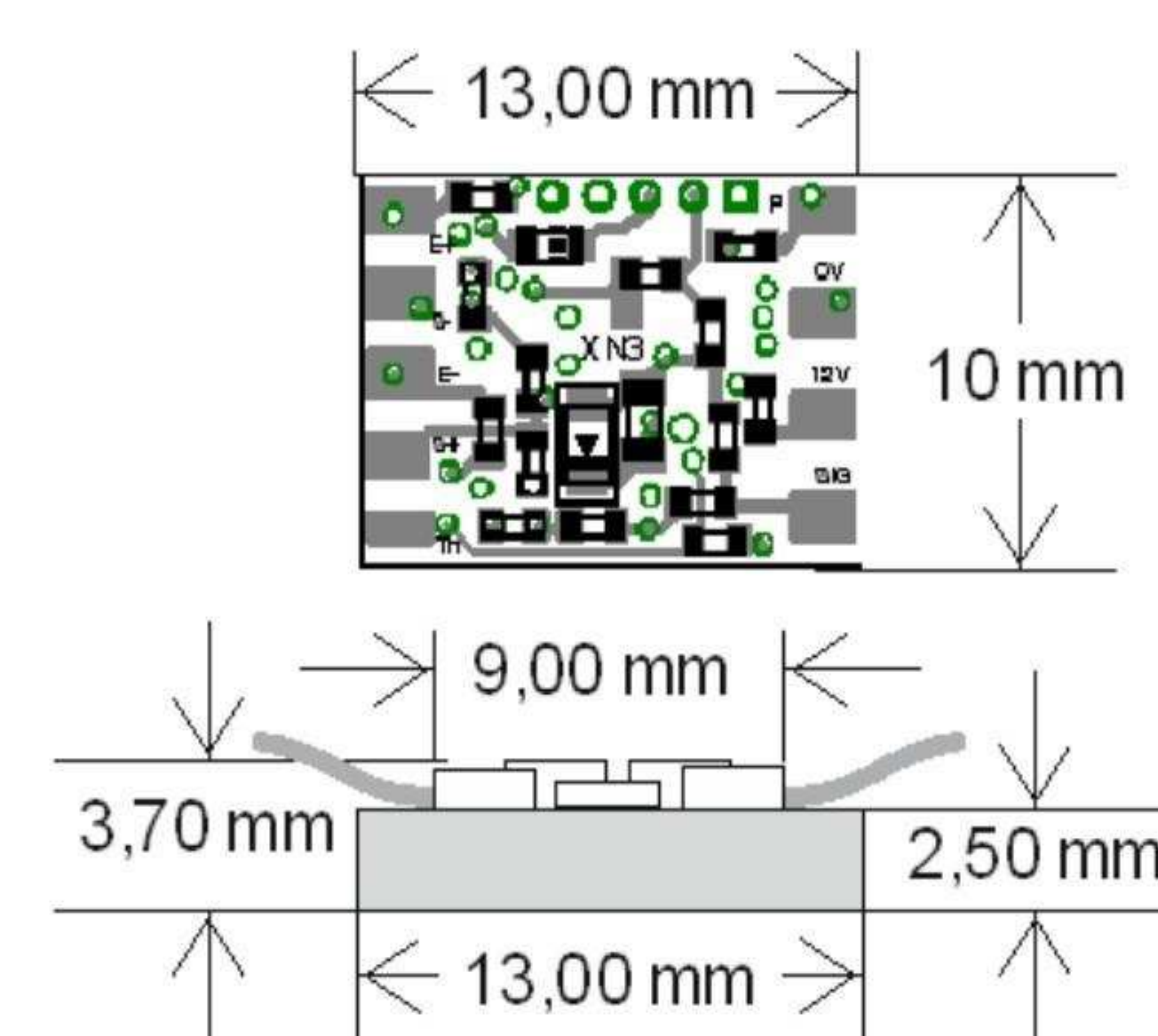
On 1 side only

1g

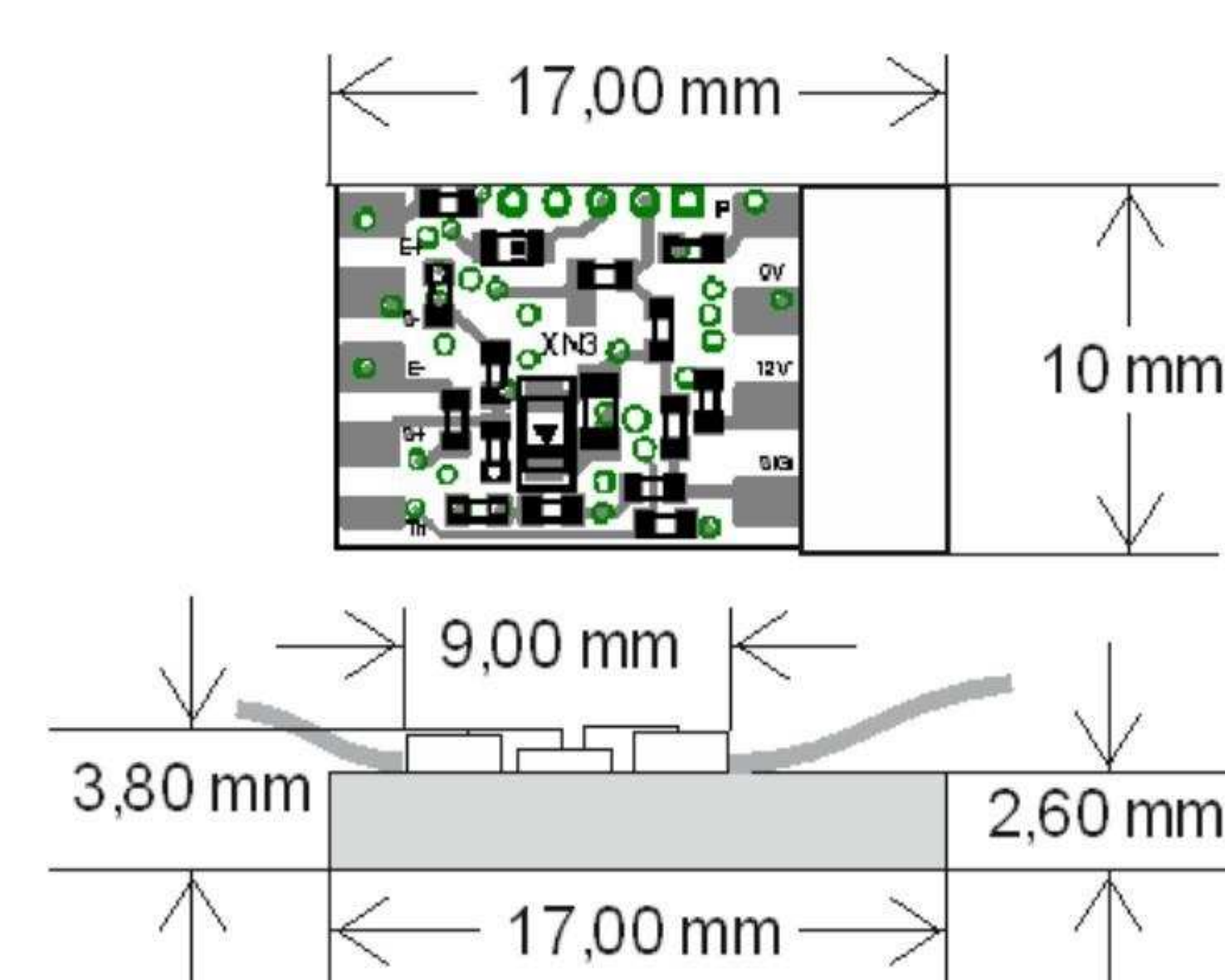
500 G

0 to +120 °C

-40 to +125 °C



XN3



XN3-P

R Metal value for gain temperature compensation (Constantan gauges)

Material of strain gauged part	R Metal
Steel (default)	20K Ω
Titanium	27K Ω
Aluminium	33K Ω
No compensation (if XN3 is used with a compensated gauge bridge)	11.5K Ω

Bandwidth capacitor values

220nF	40Hz
100nF	90Hz (Default)
47nF	190Hz
1nF	9kHz