texense world pro **by TEXYS**

STRAIN GAUGE AMPLIFIER XN2.1

Description :

- XN2 is a PCB analog strain gauge amplifier with offset and gain adjusted by microcontroller
- XN2 is fully EMI-RFI protected
- Because of its small size, XN2 may be bonded close to the gauges, which will reduce noise
- When the amplifier is wired to the strain gauge bridge, the customer may, with a single VPROG signal (no use of a computer) :
  - adjust the offset
  - adjust the gain by applying an effort on the part
  - start a self training cycle for temperature compensation
  - adjust temperature gain compensation depending on part and gauge materials
  - check the gauge bridge drift

- This amplifier simplifies strain gauging because it doesn't need zeroing, nor temperature compensation for offset or sensitivity. Just bond 1, 2 or 4 gauges on the part, wire them to the amplifier and it will do the job !
- This amplifier allows the strain gauging agent or the final customer to quickly calibrate all the parts with the same value or recalibrate them in case of signal drift.

Specifications :

Supply voltage :	5 to 16 V, Supply current: 3.5mA (18mA total current with a 350 ohms full bridge)
Operating Temperature :	0° to 120°C
Dimensions :	13 x 10 x 3.2 mm
Bridge supply voltage :	5V (internal) Bridge gauge impedance : 350 or 1000 ohms.
Offset :	Adjustable from 0.5V to 2.5V (factory default value : 2.5V)
	Max initial offset on the bridge : +/- 2mV (must be reduced if too unbalanced)
	Temperature compensation by self training in oven
Gain :	From 70 to 1250 (factory default value : 200)
	Temperature compensation set by a single resistor "R Metal" depending on part and gauge material
Output signal :	0 to 5V
	Cut off frequency : 100Hz (1 pole filter) adjustable
	Offset drift with temperature : < 10mV

Full Bridge Strain gauges

No need for any balco nickel, or manganin wires !

No need for zero sensivity adjustement or compensation !

V Metal

Status LED   R Metal

Temperature probe

VPROG

OV

Supply 5 to 16V

Output signal

Bandwidth