



NP-30SMM & NP-21TSMM

Matched Pair Pellistor Gas Sensor

Description

The N.E.T. NP-30SMM and NP-21TSMM are catalytic (pellistor) type flammable gas sensor supplied as a matched pair of elements mounted on TO4 size headers and protected by a metal can. The matched pair sensor is mounted in a plastic housing of standard diameter of 32 mm (see figure).

The sensor detects and measures the presence of flammable gases and vapours in air, in the range 0-100% of the Lower Explosive Limit (LEL) of the gas or vapour being measured. Designed as a sensing platform for use in fixed flammable gas detection systems, NP-30SMM and NP-21TSMM exhibit excellent long term zero and sensitivity stability and a high level of resistance to catalytic poisons. The devices are compatible with a wide range of commercially available Gas Detection Systems and remote flammable gas detection heads.

The difference between the two models (NP-30SMM and NP-21TSMM) shows in the resistance to catalytic poison. The resistance is higher with the NP-21TSMM model.

The highly automated manufacturing procedure employed results in a repeatable reliable sensor which, unlike similar devices, requires no trimming resistor to enable the detector to be matched with a compensator.



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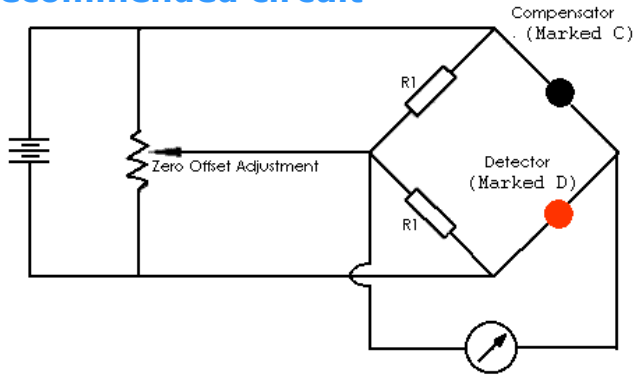
Technical specifications

Recommended Voltage:	2.0V +/- 0.1V
Current Drawn:	170 +/- 20mA
Zero Offset:	0mV +/- 25mV
Minimum Sensitivity:	20 mV/% CH ₄ /Air
Range:	0-100% LEL
Linearity:	Effectively Linear to 100% LEL
Accuracy:	+/- 1%LEL(CH ₄)
Maximum Long Term Drift (Span):	< +/- 1% LEL/ Month
Maximum Long Term Drift (Zero):	< +/- 1/2 mV/Month
Response Time:	T ₅₀ : 3 sec T ₉₀ : 8 sec

Operating conditions

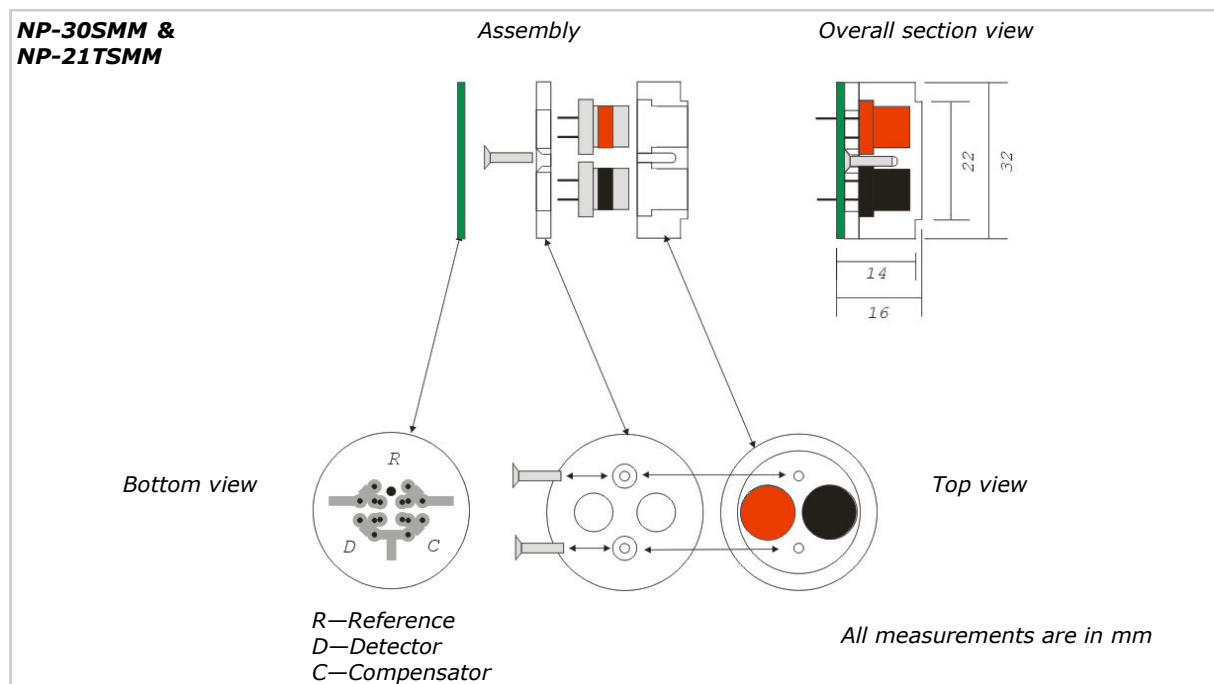
Operating Temperature:	-20°C to + 70°C
Temperature Drift (Zero):	< +/- 2% LEL (-20°C to +70°C)
Operating Humidity:	0-100% RH, non-condensing
Humidity Response:	+/- 2% LEL

Recommended circuit



Note: The value $R1$ is arbitrary, since the function of $R1$ is to balance the bridge. $1\text{ k}\Omega$ is suggested.

Dimensions



N.E.T. has a policy of continuous development and improvement of its products. As such the specification for the device outlined in the data sheet may be changed without notice.