Nano Environmental Technology
The Reliable Alternative

NP-18SHM & NP-18SHP

Single Header Pellistor Gas Sensor

Description

The NP-18SHM and NP-18SHP are catalytic (pellistor) type flammable gas sensors supplied as a matched pair of pellistor elements mounted on a single header and protected by a metal mesh enclosure and a metal or plastic external enclosure (NP-18SHM in metal and NP-18SHP in plastic).

NP-18SHP

NP-18SHM

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 lower cost alternative to the twin-header NP-18SMM device, the NP-18SHM and NP-18SHP may be used as the sensing platform in fixed flammable gas detection systems.

The NP-18SHM and NP-18SHP exhibit excellent long term zero and sensitivity stability and a high level of resistance to catalytic poisons. 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.

Technical specifications

Recommended Voltage:	2.5 V +/- 0.1 V
Current Drawn:	180 +/- 20 mA
Zero Offset:	0 mV +/- 30 mV
Sensitivity:	40-70 mV/% CH4/ Air
Range:	0-100% LEL
Linearity:	Effectively Linear to 60% LEL
Accuracy:	+/- 1% LEL(CH_4)
Maximum Long Term Drift (Span):	< +/- 2% LEL/ Month
Maximum Long Term Drift (Zero):	<+/- ½ mV/Month
Response Time:	T_{50}: 6.5 sec T_{90}: 20 sec

Operating conditions

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

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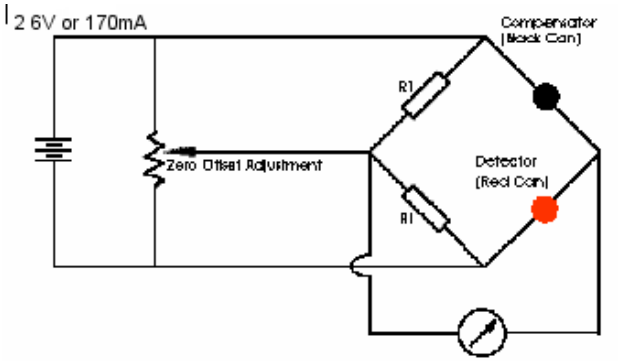
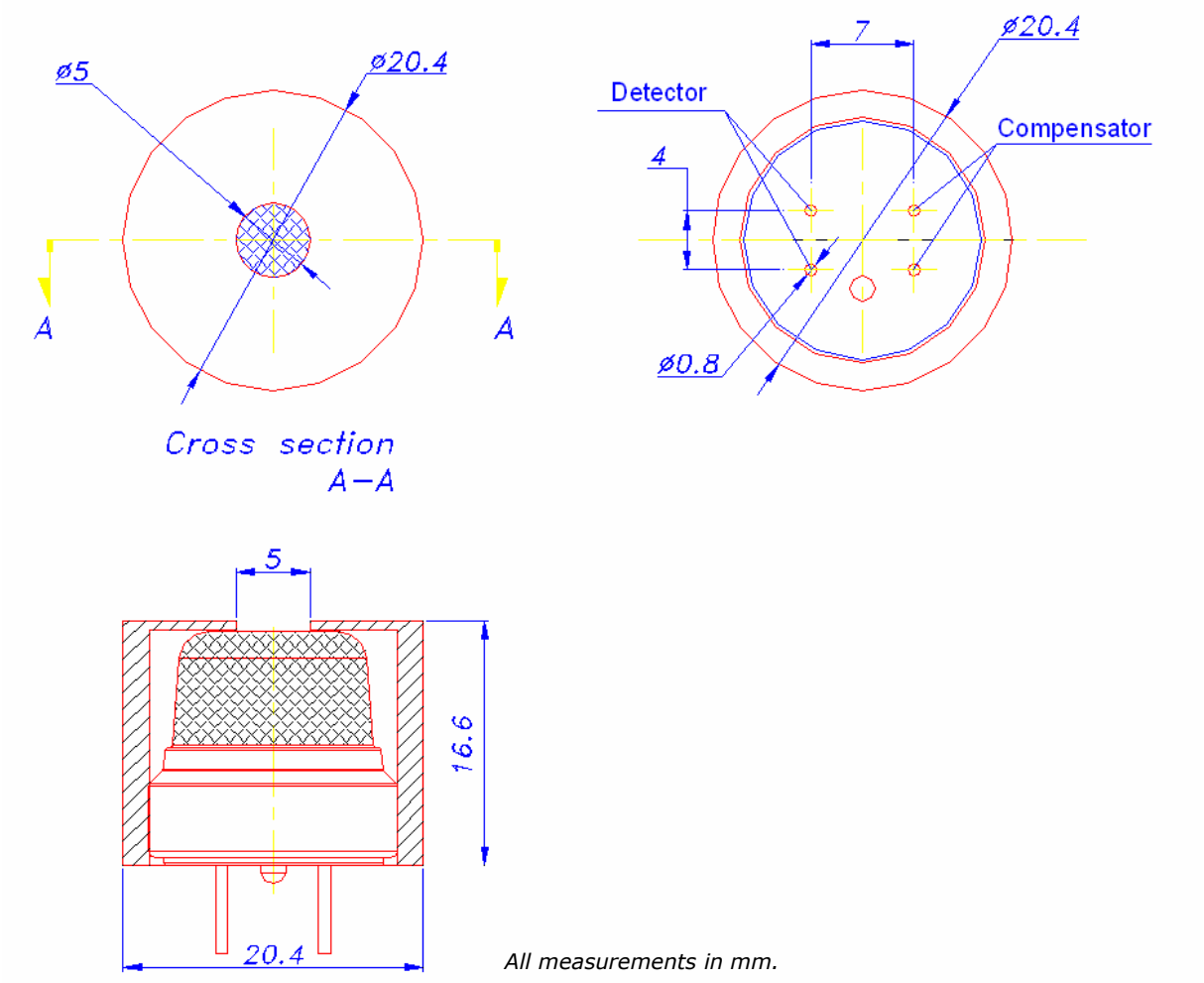
Recommended circuit



Note: The value R1 is arbitrary, since the function of R1 is to balance the bridge. 1 kΩ is suggested.

Dimensions



All measurements in mm.

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.