



# NP-17SHM & NP-17SHP

## Single Header Pellistor Gas Sensor

### Description

The NP-17SHM & NP-17SHP are catalytic (pellistor) type flammable gas sensor 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-17SHM in metal and NP-17SHP in plastic).

The sensor detects and measures the presence of flammable gases and vapours in air, in the range 0-60% of the Lower Explosive Limit (LEL) of the gas or vapour being measured. Designed as a lower cost alternative to the twin-header NP-17SMM device, yet a material improvement from the NP-17S the NP-17SHM & NP-17SHP may be used as the sensing platform in fixed flammable gas detection systems in a very wide temperature range (-40°C to 150°C).

The NP-17SHM & NP-17SHP exhibits 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.



NP-17SHP



NP-17SHM

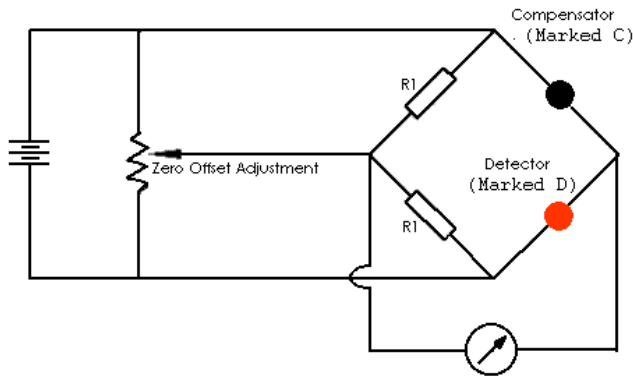
### Technical specifications

Recommended Voltage:	2.0V +/- 0.1V
Current Drawn:	170 +/- 20mA
Zero Offset:	0mV +/- 30mV
Sensitivity:	30-38mV/% CH <sub>4</sub> /Air
Range:	0-100% LEL
Linearity:	Effectively Linear to 60% LEL
Accuracy:	+/- 1%LEL(CH <sub>4</sub> )
Maximum Long Term Drift (Span):	< +/- 5% LEL/ 3 Months
Maximum Long Term Drift (Zero):	< +/- 1/2 mV/Month
Response Time:	T <sub>50</sub> : 6.5 sec T <sub>90</sub> : 20 sec

### Operating conditions

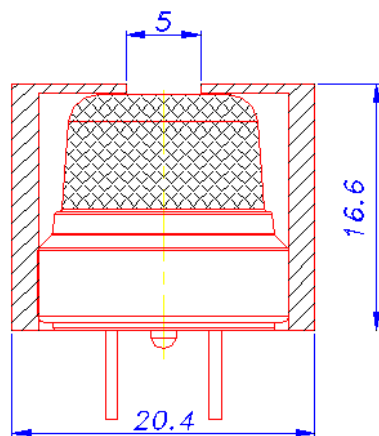
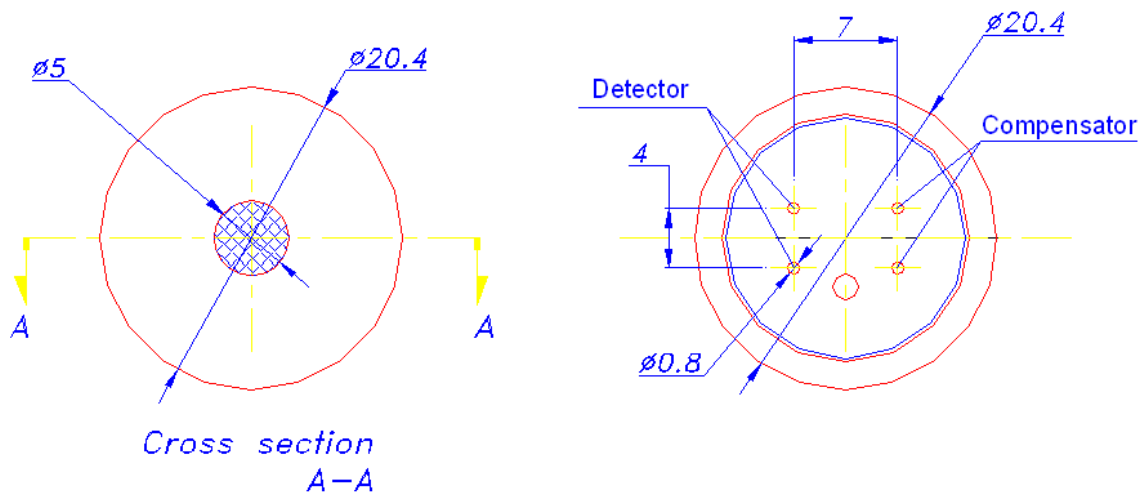
Operating Temperature:	-40°C to + 150°C
Temperature Drift (Zero):	< +/- 2% LEL (-20°C to +70°C)
Operating Humidity:	0-100% RH, non-condensing
Humidity Response:	+/- 2% LEL

## Recommended circuit



Note: The value  $R1$  is arbitrary, since the function of  $R1$  is to balance the bridge.  $200\ \Omega - 1\ k\Omega$  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.*