



NP-30SHM & NP-30SHP

Single Header Pellistor Gas Sensor

Description

The Nemoto NP-30SHM & NP-30SHP are catalytic (pellistor) type flammable gas sensor supplied as a matched pair of pellistor elements mounted on a single header and protected by a stainless steel or plastic external enclosure (NP-30SHM in metal and NP-30SHP in plastic).

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-30SMM device, the NP-30SHM & NP-30SHP may be used as the sensing platform in fixed flammable gas detection systems.

The NP-30SHM & NP-30SHP 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.



NP-30SHP



NP-30SHM

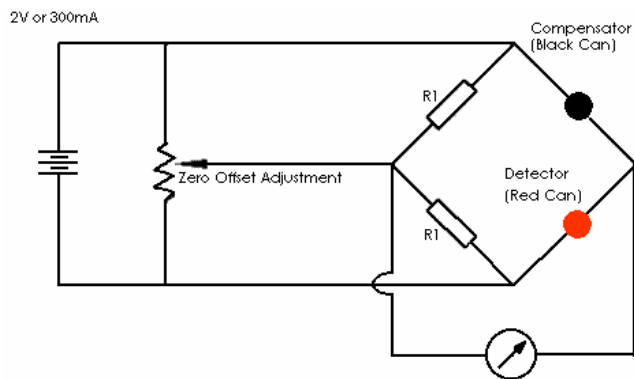
Technical specifications

Recommended Voltage:	2.0 V +/- 0.1 V
Current Drawn:	300 +/- 20 mA
Zero Offset:	0 mV +/- 30 mV
Minimum gas sensitivity:	20 mV/% CH ₄ /Air
Range:	0-100% LEL
Linearity:	Effectively Linear to 100% LEL (to within 5%)
Accuracy:	+/- 1% LEL(CH ₄)
Maximum Long Term Drift (Span):	< +/- 5% LEL/ 3 Months
Maximum Long Term Drift (Zero):	< +/- 1/2 mV/Month
Response Time:	T ₅₀ : 6.5 sec T ₉₀ : 20 sec

Operating conditions

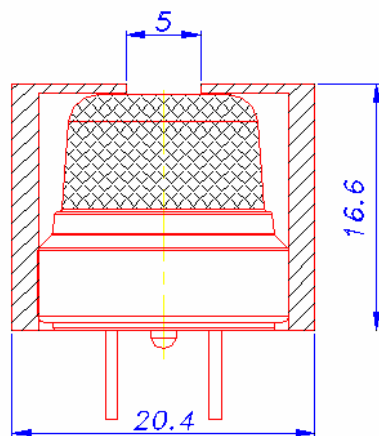
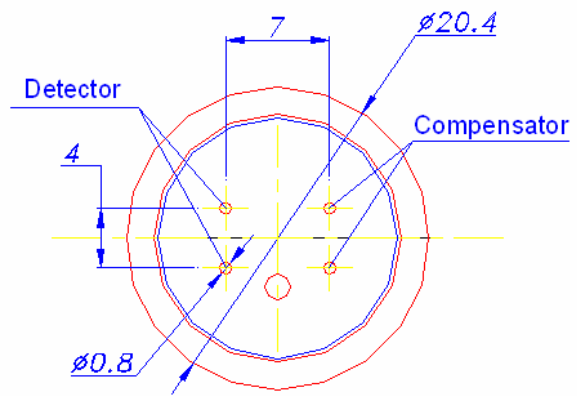
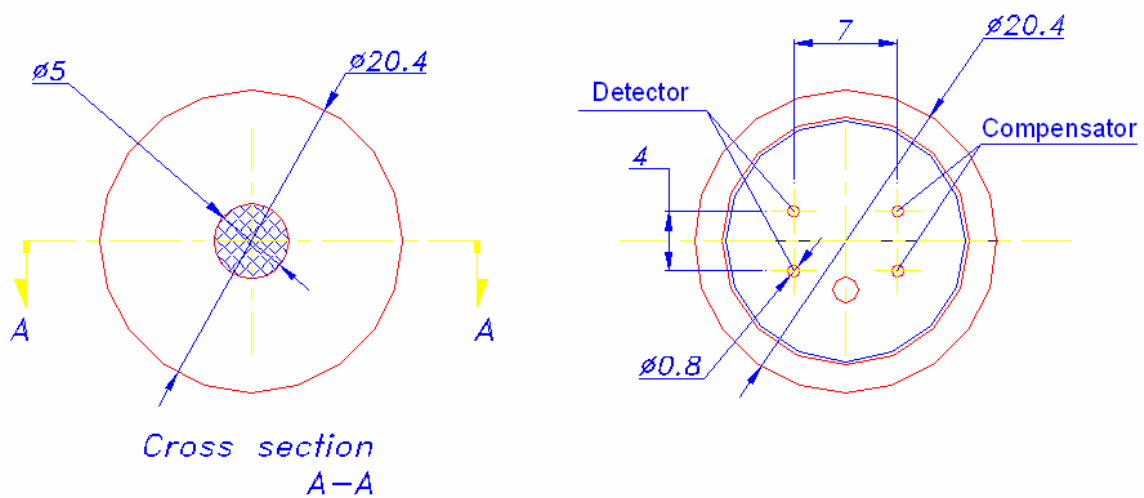
Operating Temperature:	-20°C to + 70°C
Temperature Drift (Zero):	< +/- 2% LEL (-20°C to +70°C)
Operating Humidity:	0-100% RH, non-condensing
Humidity Response:	+/- 2% LEL

Recommended circuit



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