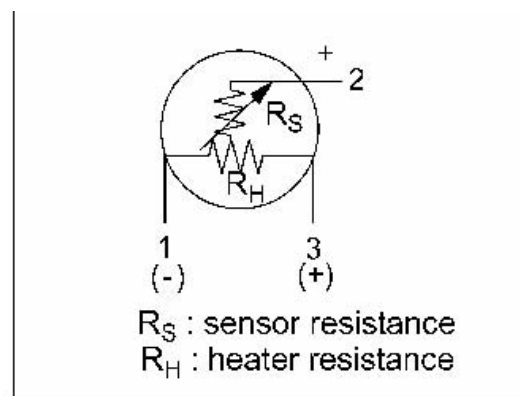
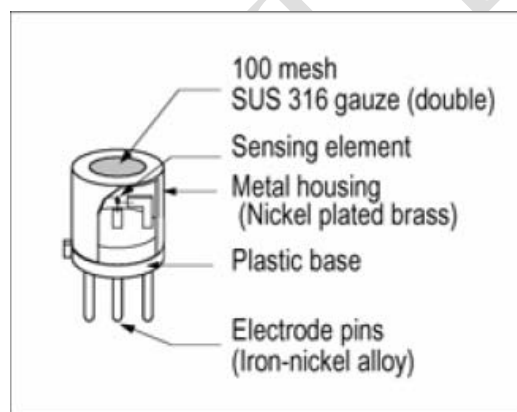


GAS SENSOR FOR AIR QUALITY DETECTION ---GSG-860

The GSG-860 is comprised of a SnO_2 semiconductor material bead and a heater coil. It has a high sensitivity and fast response to low concentrations of gaseous air contaminants such as carbon monoxide and hydrogen gas. This is suitable for detection air quality.

Typical applications:

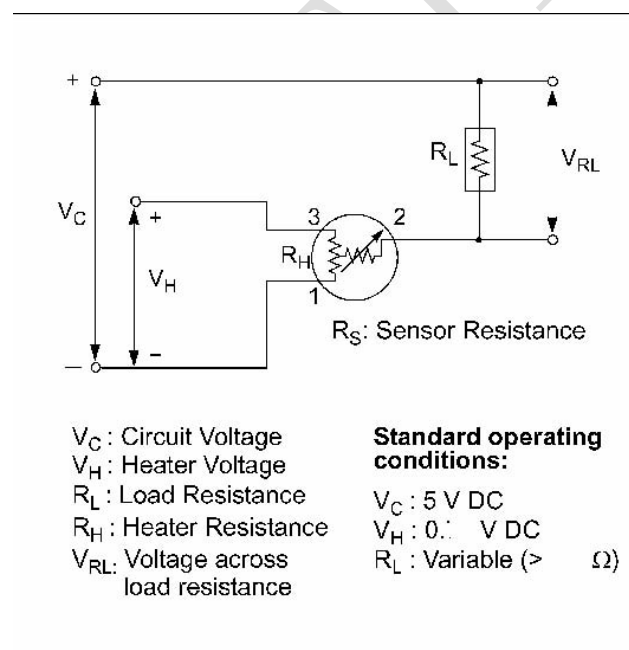
- *Air cleaners
- *Ventilation
- *control
- *Air quality
- *Monitors



Basic Measuring Circuit:

The sensor requires two voltage inputs: Voltage since the sensor has a polarity. A heater voltage (V_H) and circuit voltage

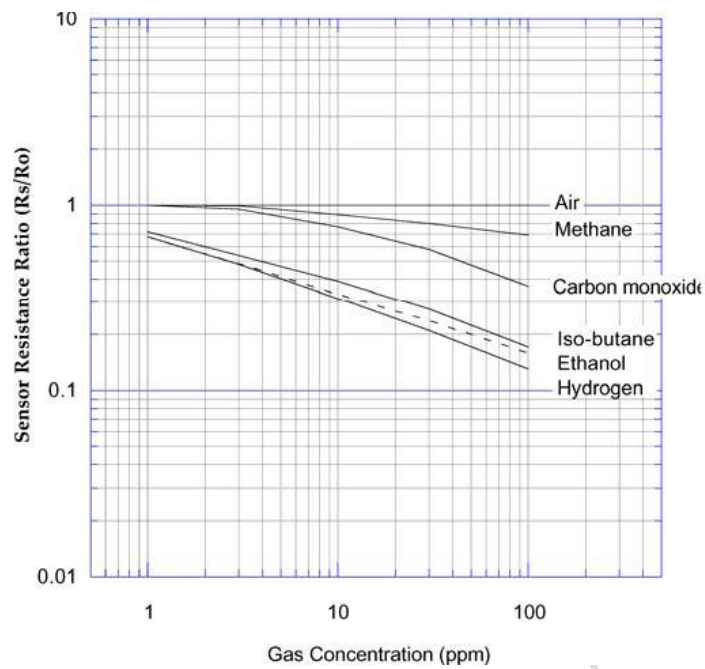
common power supply circuit can be (V_o), The heater voltage (V_H) is applied to used for both V_C and V_H to fulfill the the integrated heater in order to maintain sensor's electrical requirements. The the sensing element at a specific value of the load resistor (R_L) should be temperature which is optimal for sensing. chosen to optimize the alarm threshold Circuit voltage (V_C) is applied to allow value, keeping power consumption (PS) measurement of voltage (V_{out}) Across a of the semiconductor below slimit of load resistor (R_L) which is connected in 15mw Power consumption (PS) will be series with the sensor . DC voltage is highest when the value of R_S is equal to required for circuit. R_L on exposure to gas.



Specification:

Model Number			GSG-860	
Standard package			TO-5	
Standard Operating Conditions	Heater voltage	V_H	$0.90V \pm 0.10V$	DC
	Circuit voltage	V_C	$\leq 6.0V$	DC
	Load resistance	R_L	Variable $\geq 1K\Omega$	
	Heater resistance	R_H	$4.5\Omega \pm 0.5\Omega$	At room temperature
	Heater current	I_H	$\leq 130mA$	
	Heat power consumption	P_H	$\leq 130mW$	
	Power dissipation of sensing element	P_S	$\leq 10mW$	
Environmental conditions	Operation temperature	T_{AO}	$-20^\circ C$ to $70^\circ C$	
	Storage temperature	T_{AS}	$-20^\circ C$ to $70^\circ C$	
	Relative humidity	R_H	10 to 95%RH	
	Oxygen	O_2	$21\% \pm 1\%$	$\geq 18\%$
Sensitivity characteristics	Sensor resistance in air	R_S	$20K\Omega$ to $40K\Omega$	In clean air
	Sensitivity		0.3 to 0.7	$R_S(10PPm \text{ of } H_2)$ $R_S(\text{air})$
Standard Test conditions	Temp: $20^\circ C \pm 2^\circ C$ $V_C: 3.0V(5.0V) \pm 0.1V$ Humidity: $65\%RH \pm 5\%RH$ $V_H: 0.90V \pm 0.1V$ (in clean air) $R_L: 1K\Omega$ PER-heating time :more than 48 hours			

Sensitivity characteristics



Structure And Demensions

