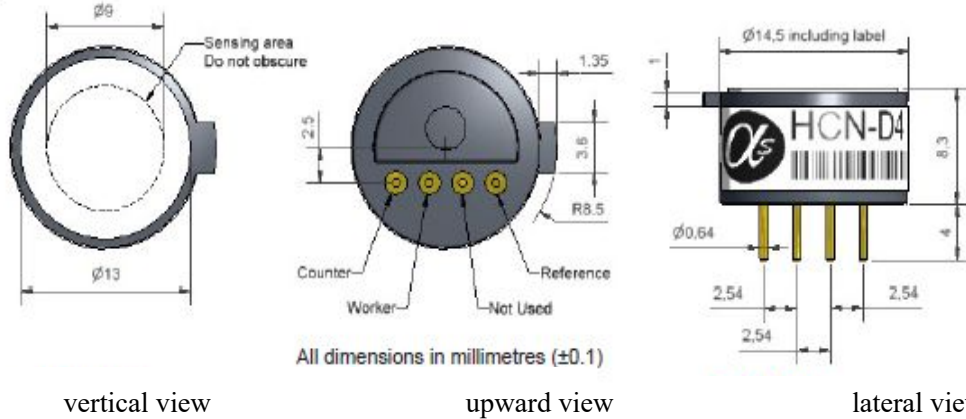


HCN-D4 Hydrogen Cyanide Sensor Micro



Figure 1 Schematic Diagram of HCN-D4



function	sensitivity	Sensitivity in 20ppmHCN (nA/ppm)	30~50
	reaction time	Time from zero to 20ppmHCN (s)	< 50
	zero current	Equivalent ppm value in zero air	±5
	resolution ratio	RMS noise (equivalent ppm value)	< 0.3
	range	Measuring limits (ppm) that guarantee product performance	50
	degree of linearity	The ppm value of the full scale error is linear from 0 to 200ppm	0~4
	overload	Maximum ppm value of gas pulse stabilized reaction	250
	life span	zero drift	Equivalent ppm values that change in the laboratory air from year to year
sensitivity drift		Percentage change in laboratory air over the year, measured monthly	nd
working life		Number of months to which the output has been reduced to 80% of the original signal (12-month guarantee)	> 12
environment	-20°C sensitivity	20ppmHCN when, (output at -20°C/ output at 20°C)%	55~90
	Sensitivity at 50°C	20ppmHCN when, (50°C output/20°C output)%	105~120
	-20°C when zero point	Change in equivalent ppm values with reference to 0°C 20	< ± 1
	50°C at the zero point	Change in equivalent ppm values with reference to 20°C zero	< ± 1
cross sensitivity	H ₂ S	Gas sensitivity percentage at 20ppmH ₂ S	< 50
	NO ₂	Gas sensitivity percentage ₂ measured at 10ppmNO	< -120
	Cl ₂	Sensitivity percentage of gas measured ₂ at 10ppmCl	< -40
	NO	Gas sensitivity percentage measured at 50ppmNO	< -1
	SO ₂	Gas sensitivity percentage ₂ at 20ppmSO	< 25
	CO	Gas sensitivity percentage measured at 400ppmCO	< 0.1
	H ₂	Gas sensitivity percentage measured at 400ppmH ₂	< 0.1
	C ₂ H ₄	Gas sensitivity percentage measured at 400ppm ₂ C ₄	< 0.1
NH ₃	Percentage sensitivity of gas ₃ at 20ppmNH	< 5	
Critical parameter	temperature range	°C	-30~50
		The sensitivity decreases when the temperature is between -30 and -10	
	pressure limit	kPa	80~120
	Humidity range	Percentage of continuous relative humidity (see below)	15~90
	Storage period	Number of months for preservation from 3 to 20°C (to be kept in the original container)	6
	load resistance	Ω (recommend)	10~47
	weight	g	< 2

Note: The product can only guarantee continuous 10 days of test performance when the humidity is higher than 85%rh and the temperature is higher than 40°C. The product should be limited when the temperature exceeds 40°C.

Figure 2 Sensitivity Temperature Characteristics

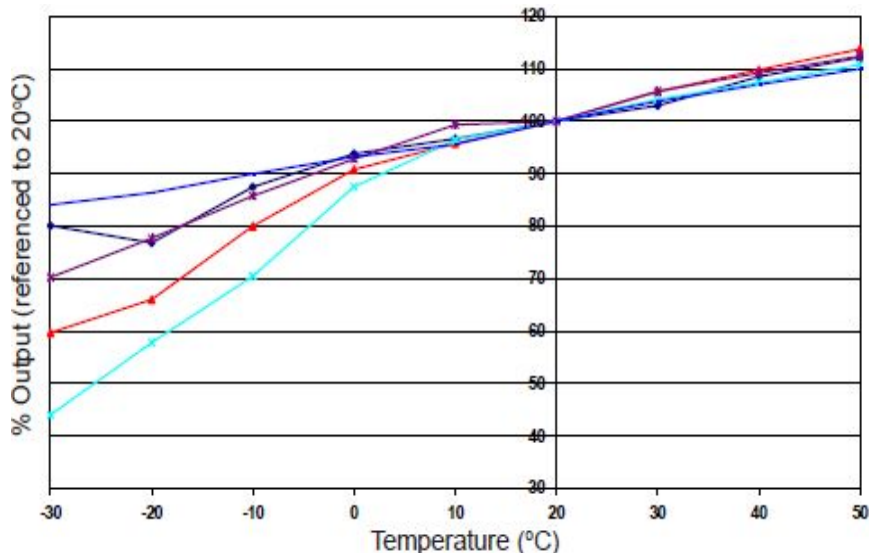


Figure 2 shows the change in sensor sensitivity caused by temperature changes.

The data is taken from a typical batch of HCN-D4 sensors.

Figure 3 Zero Temperature Characteristics

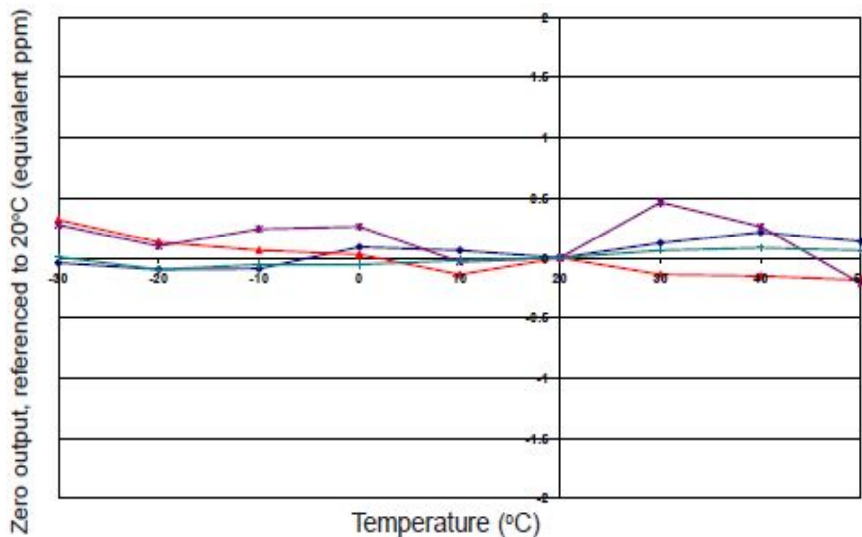


Figure 3 shows the change in zero point output caused by temperature changes, expressed as equivalent ppm values, with reference to the zero point at 20°C.

Data is taken from a typical batch of sensors.

Figure 4 Reaction at 25ppm HCN

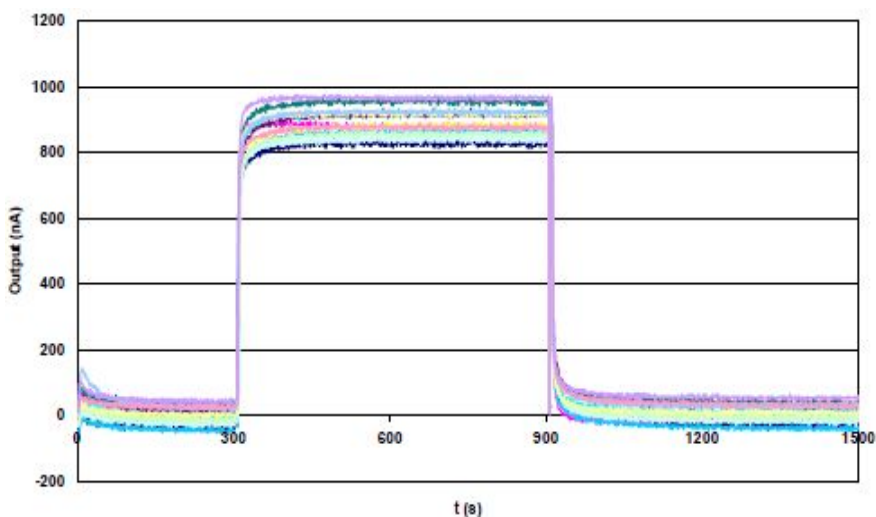


Figure 4 shows the reaction of the sensor with zero grade air, 25 ppm HCN and zero grade air successively.

Fast response time and excellent zero point stability can ensure that the sensor makes fast and reliable response in gas emergency accidents.