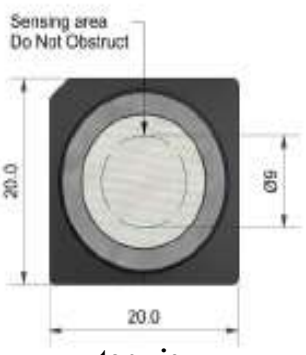
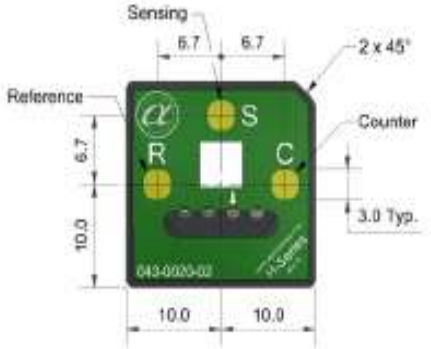
Technical specifications version 1.0

HCN-H4 hydrogen cyanide sensor--miniature

lateral view



top view



bottom view

All dimensions are in mm (±0. 1mm)

Performance sensitivity		Sensitivity in 20ppmHCN (nA/ppm)	30~50
	Response time	Time from zero to 20ppmHCN (s)	< 50
	zero current	Equivalent ppm value of 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	nd
	sensitivity drift	Percentage change in laboratory air over the year, measured monthly	nd
	working life	Number of months output drops to 80% of original signal (12 months guaranteed)	> 12
Sensitivity at-10°C		20ppmHCN when, (output at-10°C/20°C output)%	55~90
	Sensitivity at 50°C	At 20ppmHCN, (output at 50°C/20°C)%	105~120
	-20°C when zero point	Change in equivalent ppm values with reference to 20°C zero	< ± 1
	50°C at the zero point	Change in equivalent ppm values with reference to 0°C 20	< ± 1
Crossed H_2S		Gas sensitivity percentage at 20ppmH_2S	< 50
Sensitivity NO_2		Gas sensitivity percentage $_2$ 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_2H_4	Gas sensitivity percentage measured at 400ppmC_2H_4	< 0.1
	NH_3	Percentage sensitivity of gas $_3$ at 20ppmNH	< 5
Key temperature ranges		℃	-10~50
parameter			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℃ (to be kept in the original container)	6
	load resistance	Ω （recommend）	10~47
	weight	g	< 2

Figure 1 Sensitivity Temperature Characteristics

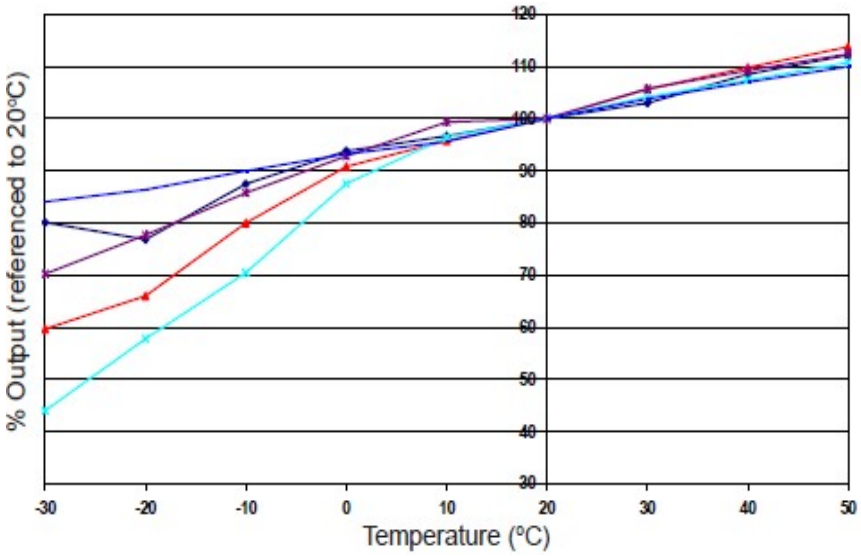


Figure 1 shows the change in sensor sensitivity caused by temperature changes.

The data was collected from a typical batch of HCN - H4 sensors.

Figure 2 Zero Temperature Characteristics

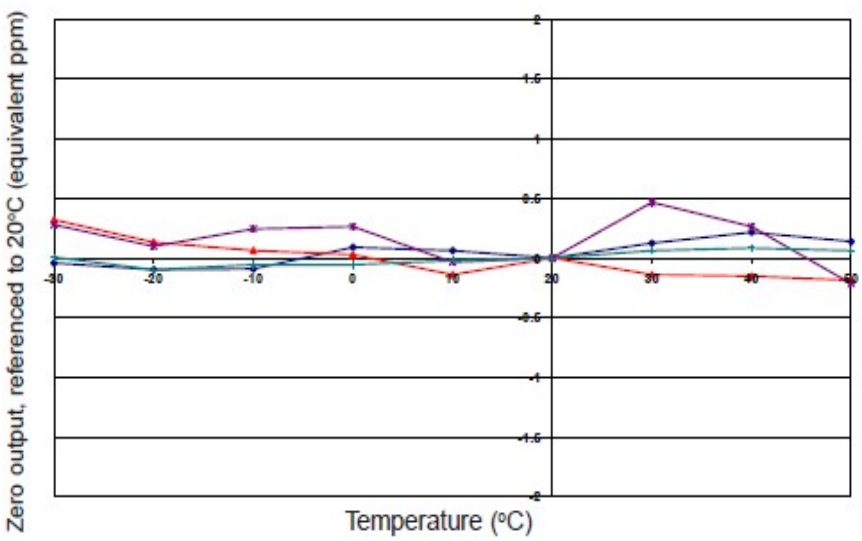


Figure 2 shows the change in zero point output caused by temperature changes, expressed as equivalent ppm values, with reference to the zero point at 20 ℃.

Data was taken from a typical batch of sensors.

Figure 3 Reaction at 25ppm HCN

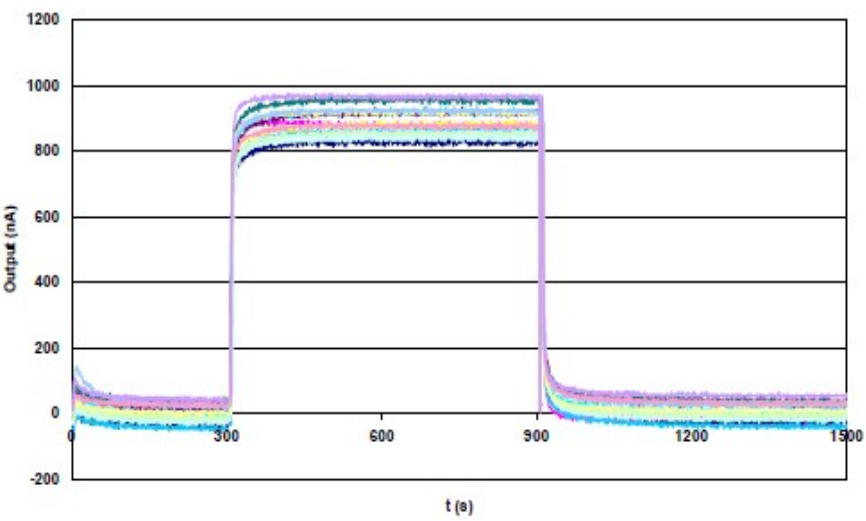


Figure 3 shows the reaction of the sensor with zero grade gas, 25ppm HCN and zero grade air successively.

Fast response time and excellent zero point stability can ensure that the sensor can respond quickly and reliably in gas emergency accidents.

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