EC4-HCl-30-01

EC4-HCl-30 Hydrogen Chloride Gas Sensor

EC Sense • Hydrogen Chloride • Amperometric

The EC Sense EC4-HCl-30 is an electrochemical gas sensor for Hydrogen Chloride detection, with a 0 – 30 ppm range, -150 nA/ppm ± 50 nA/ppm sensitivity and T50 < 40 s, T90 < 80 s response. Double-sealed ABS housing at about 8 g with excellent leakage protection — built for long-term industrial field deployment Well suited to industrial safety, leakage detection and emission monitoring, with a designed lifetime of > 2 years.

Specifications

Operating Principle	Amperometric
Bias Voltage	0 mV
Range	0 – 30 ppm
Maximum Overload	100 ppm
Resolution	< 0.1 ppm (16-bit ADC)
Sensitivity	-150 nA/ppm ± 50 nA/ppm
Response Time	T50 < 40 s, T90 < 80 s
Repeatability	2 %
Linearity	Linear
Zero Current	± 100 nA
Recommended Load	100 Ω
Warm-Up Time	< 60 s
Operating Temp.	-20 ℃ to +55 ℃
Operating Humidity	15-95% RH non-condensing
Operating Pressure	800 to 1200 hPa
Storage Temp.	0 ℃ to 20 ℃ (Optimum temp. 4 ℃ to 6 ℃)
Housing	ABS
Weight	< 8 g
Long-Term Drift	< 5 %/year
Expected Lifetime	> 2 years
Zero Drift in Clean Air	< 1 ppm
Storage Life	6 months
Warranty	12 months

Key Features

- No bias voltage

- Detects with high selectivity a wide variety of gases
- Double sealed housing for advanced leakage protection
- Stable zero
- Linear output
- High sensitivity
- nA power consumption
- Wide operation temperature range of -20 °C to +55 °C
- Typical warm-up time in minutes
- RoHS compliant

Typical Applications

- Industrial Safety
- Leakage Detection
- Emission Monitoring
- Semiconductor Industry
- Warehouse Logistics Monitoring

Calibration & Cross-Sensitivity

Calibrated with Hydrogen Chloride standard gas. Cross-sensitivity to other gases may exist — see the cross-sensitivity table in the datasheet.