

# HYDROGEN LEAK DETECTOR



## Product Overview

There is a growing need for FCVs and HICEs around the world, but their success depends on advanced onboard hydrogen detection to protect passengers and meet strict safety regulations. New Cosmos offers compact, highly sensitive sensors for fast, reliable detection of even trace hydrogen.



## Key Features

- 01 Fast response time & excellent responsiveness
- 02 High Durability
- 03 Sensor poisoning resistant
- 04 Accuracy:  
High sensitivity & selectivity

## Applications :

- Hydrogen-powered automobiles
- Hydrogen-powered heavy-duty trucks
- Hydrogen-powered buses
- Hydrogen-powered construction equipment
- Hydrogen-powered aircraft



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# REASONS TO CHOOSE OUR PRODUCTS

Choosing the right hydrogen gas leak detector is essential for safety and cost-effectiveness. Our products excel due to their unmatched safety, rapid response, and affordability. With a proven track record and compliance with regulations, they ensure reliable performance. Our innovative partnerships and tailored solutions further distinguish us as industry leaders.



## Diverse Usability

The IP67 seal enables the use of Hydrogen Leak Detector across a variety of applications.



## Cost-Effective

By utilizing advanced mass production technology, we offer a cost-effective solution without compromising on quality or performance.



## Proven Track Record

0 field defects in on-board hydrogen detectors reported since 2020



## Custom Detection Solution

By managing everything from sensor development to equipment creation, we can develop a tailored solution to your vehicle.

# HOW TO USE?

The Hydrogen Leak Detector sensor is usually positioned near the hydrogen storage tank, hydrogen gas piping, fuel cell, or within the vehicle cabin.



\* Illustration purposes

## Specifications

| Model                          | CSD-04                                                    | CSD-05 | CTD-04                                                                         |
|--------------------------------|-----------------------------------------------------------|--------|--------------------------------------------------------------------------------|
| Target Gas                     | Hydrogen                                                  |        |                                                                                |
| Detection Principle            | Catalytic Combustion                                      |        | Thermal conductivity (MEMS TYPE)                                               |
| Supply Voltage                 | 8 to 32 VDC                                               |        |                                                                                |
| Detection Range                | 0 to 40,000ppm                                            |        | 0 to 10 vol%                                                                   |
| Output                         | CAN                                                       | PWM    | CAN                                                                            |
| Response Time(T90)             | ≤ 3 seconds                                               |        | ≤ 6 seconds *                                                                  |
| Accuracy                       | ± 10% *Accuracy is guaranteed for 10,000 ppm or above.    |        | ± 20% *Accuracy is guaranteed for 1 vol% or above.                             |
| Power Consumption              | In normal operation: 1.6 W max、 At powering-up: 2.4 W max |        | In normal operation: 500mW max<br>*Not include the rush current at powering-up |
| Operating Temperature/Humidity | -40 to 105 °C / 0 to 100 %RH *No Condensation             |        |                                                                                |
| Storage Temperature/Humidity   | -40 to 105 °C / 0 to 100 %RH *No Condensation             |        |                                                                                |
| Mounting                       | Pitch 62 x dia. 8.5 (2 places)                            |        |                                                                                |
| Weight                         | Approx. 62 g                                              |        |                                                                                |
| Compliance                     | CE (RoHs, EMC: EN50498)                                   |        |                                                                                |
| Ingress Protection             | IP67 or equivalent                                        |        |                                                                                |

\* Under development

## CUSTOMIZATION :

The Hydrogen Leak Detector Sensor may be customized to meet application needs. Solutions may be tailored to exact specifications for improved time to market, lower total system costs, and enhanced reliability. For technical assistance, we provide global engineering and service support for your needs.



### SAFETY WARNING

Carefully read the instruction manual prior to use.

Select and use the device designed to detect the required type of gas. Use of a wrong sensor type may cause an accident.