

# **SPECIFICATIONS**

# H<sub>2</sub> DETECTOR (12V)

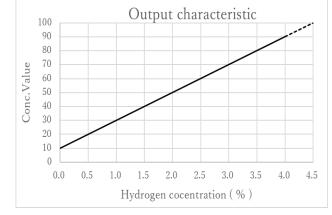
# **FH2-HY05-GS1**

### for HYDROGEN LEAK DETECTION

The FH2-HY05 is a newly developed hydrogen detector, specifically designed for preventing hydrogen leaks in fuel-cell vehicles (FCV). For this application, a reliable hydrogen sensor is required and Nissha FIS has developed a new catalytic combustion type hydrogen sensor with a minimum mass and wide surface area using a unique technology.

The development of this sensor realizes a rapid response speed and strong poisoning resistance against silicone compounds. These features achieve the expected demands for long life in actual applications in automobiles, without any need for replacing detectors over a long period. In combination with sophisticated electronics and software design, Nissha FIS offers the following features in hydrogen leak detection.





- Rapid response speed
- High selectivity
- Long life
- Compact and light weight

From CAN output, the Hydrogen concentration (%) is calculated with the following formula:

Hydrogen concentration (%) =

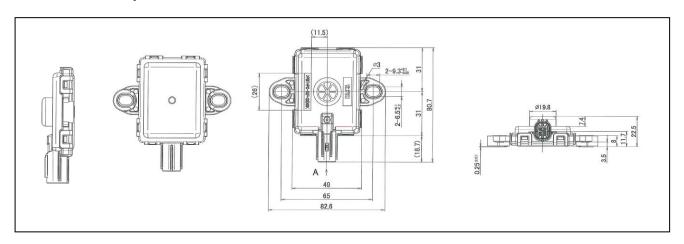
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# Specifications: FH2-HY05-GS1

Item	Specification
Sensing principal	Catalytic combustion type
Detection gas	Hydrogen
Concentration range	0 ∼4 vol.% in air
Initial accuracy	± 10 % (above 10000 ppm)
Start-up time	≤ 1 second
Speed of response(T90)	≤ 3 second
Supply voltage	12 V (8V $\sim$ 16V) DC
Power consumption	Approx. 0.3 W
Output signal	CAN(Expansion format) Baud rate: 500 kbps
Operating temperature & humidity	-35 °C $\sim$ 85 °C / < 100 %RH (no condensation)
Operating environment	O <sub>2</sub> concentration 20%±10 %
Storage temperature & humidity	-40 °C $\sim$ 105 °C / < 100%RH (no condensation)
Dimensions (without the attaching part)	62 (W) × 49 (D) × 22.5 (H) mm
Weight	約 60 g

# **DIMENSIONS / CONFIGURATIONS**



Please contact Dec.2021 Revised

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