

FES SENSOR
TECHNOLOGY
GMBH



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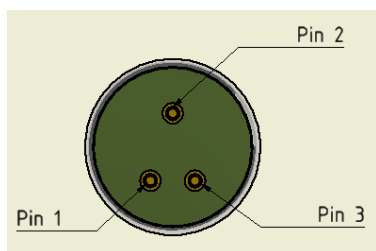
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SPECIFICATION SHEET

Hydrogen Sensor H2-CNI



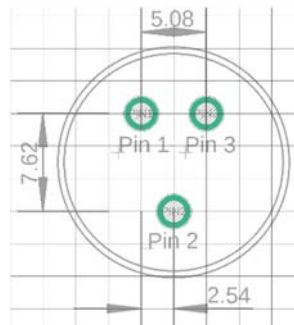
PIN NO.	DESCRIPTION
1	+12 V
2	Sensor signal
3	Ground



(Note: Bottom view)

Pin diameter = 1.57 mm
Pin length = 4.78 mm

FOOTPRINT



Recommended plug-in sockets: 450-3326-01-03-00
(Cambion Electronics LTD)
Drill hole: 2.6 mm

Rev.	Date
0.1	Oct. 2020
0.2	Nov. 2, 2020
0.3	Feb. 4, 2021

FEATURES

- Detection of hydrogen levels up to 100% LEL with 0.25 % resolution in air
- Fast response and recovery times
- Linear output up to 100 % LEL
- On-board sensor electronics
- Ambient temperature range from -10 to +50 °C (optional: other temperature ranges)
- Relative humidity (rh) operating range 0% to 100%
- No humidity-induced base line drift

GENERAL DESCRIPTION

H2-CNI is a calorimetric hydrogen sensor with catalytically highly active and siloxane-resistant sensor element and is based on a non-isothermal calorimetric operation principle.

MECHANICAL	
Housing material	metal
Weight	15 g
Diameter	20.0 mm
Height (housing)	16.6 mm
Height (overall)	21.0 mm
ELECTRICAL	
Supply voltage	+12 V
	min +9 V @ 20 °C
Supply current	53 mA@ -10 °C
	50 mA @ 0 °C
	43 mA @ 20 °C
	34 mA @ 40 °C
	29 mA @ 50 °C
ENVIRONMENTAL	
Ambient temperature range ¹⁾	-10 to +50 °C
	¹⁾ Optional -40 °C to 20 °C
Operation humidity	0 ... 100 % r.h.

SENSOR PARAMETERS	
Signal at 50% LEL	2V (typical)
Resolution	< 0.25 % LEL
Linearity	1 V/(25 % LEL) or 1V/(1 vol-% H ₂)
Response time	< 5 s
Thermal zero point drift	5 mV/°C or 0.1 % LEL/°C
Cross-sensitivities	< 200 mV/(100 % rh)
	< 50 mV/(1000 ppm CO)
	< 25 mV/(1000 ppm HDMS)*
*tested with 4.3 vol-% hexadimethylsiloxane in air	
ORDERING INFORMATION	
Hydrogen sensor H2- CNI	
PACKAGING/SHIPPING INFORMATION	
This sensor is shipped individually in an antistatic bag.	



Warnings: The sensor H2-CNI is intended to be part of a customer safety system, enabling audible alarms, system shutdown, ventilation, or other measures to ensure safe handling and use of hydrogen gas. The sensor itself does not provide protection from hydrogen/air explosion.