

# Hydrogen Nitriding Analyzer

Hydrogen Analyzer used for nitriding and other process gas applications



PN: 13537  
800 X 480 Color Touch Screen

## Nitriding Potential ( $K_N$ )

Displays 0 - 100%  $H_2$

Calculates and Displays %DA and  $K_N$

Capable of %DA and  $K_N$  with manual input of  $N_2$  and  $NH_3$  flows

### General Specifications

- Input Voltage: 100 - 240 VAC
- Maximum Current Draw: 0.2A @ 120 VAC
- Enclosure Weight: 22.5 lbs / 10.2 kg
- Analog Outputs: Two 4-20mA outputs common supply and isolated from other electronics
- Output variables: % $H_2$ , % $NH_3$ , %DA, and  $K_N$  on either output

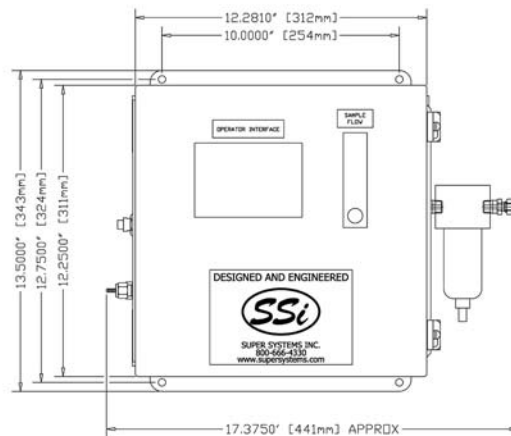
- Easy to operate
- Easy to use onboard calibration
- Software utilities for printing charts

- Field calibration for zero and span
- Ethernet and USB communications

- Hydrogen measurement: Range: 0 to 100% Accuracy: +/- 1% Repeatability: +/- 1% Resolution: +/- 0.01%
- Sample flow rate: 1.5-2 cfh

### Included Software for Data Management

- Data manager for downloading
- Print charts and tabular data
- Add notes when capturing data
- Graphical display on PC
- Export utilities



# OEM H<sub>2</sub> Sensor

## Specifications



PN: 20624

### Features

- Measures H<sub>2</sub> from 0 to 100% with 0.01% resolution
- Calculates NH<sub>3</sub>, DA, and K<sub>N</sub> for nitrider applications
- Two isolated 4-20mA or 0-20mA (current) OR 0-10V, 2-10V, 1-5V, or 0-5V (voltage) analog outputs
- One RS-232 port with Modbus RTU or a simple ASCII protocol
- One RS-485 port with Modbus RTU protocol
- Wide power supply input range (9-30 VDC)

### Temperature and Humidity:

Electronics: 0 to 50°C, RH to 90% non-condensing  
Sample Gas: 0 to 70°C, RH 0 to 90% non-condensing

Storage: -20 to 70°C, RH 0 to 90% non-condensing

### Hydrogen measurement:

Range: 0 to 100%

Accuracy: +/- 1%

Repeatability: +/- 1%

Resolution: +/- 0.01%

### Sample flow rate:

1.5-2 cfh

### Power requirement:

9 to 30 volts DC @ 2 watts

### Material:

Stainless steel sensor housing

### Weight:

350g

### RS-232 Serial Communications:

Protocols: Modbus RTU or simple ASCII

Baud Rates: 9600, 19200, or 38400

Format: 8 bits, no parity; 1 stop bit, no handshaking

Connection: DB-9F

### RS-485 Serial Communications:

Protocol: Modbus RTU

Baud Rates: 9600, 19200, or 38400

Format: 8 bits, no parity; 1 stop bit, no handshaking

Connection: Screw Terminals

### Analog Outputs:

Two 4-20mA or 0-20mA (current) OR 0-10V, 2-10V, 1-5V or 0-5V (voltage) outputs common supply and isolated from other electronics

Output variables: %H<sub>2</sub>, %NH<sub>3</sub>, %DA, and K<sub>N</sub> on either output

Adjustable range of PV: zero and span

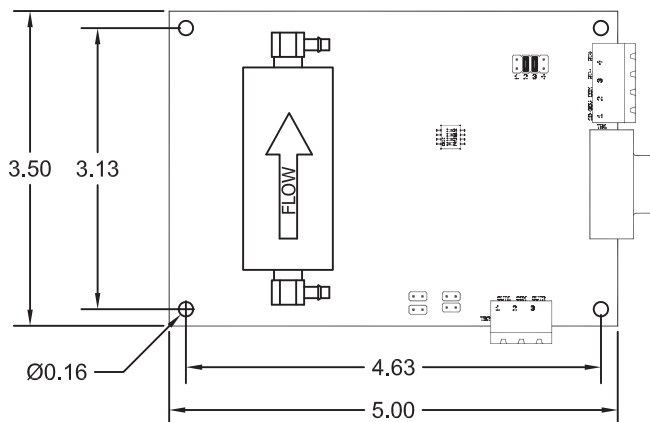
Resolution: 0.005 mA

Accuracy: +/- 0.01% of range

Linearity: +/- 0.01%

Minimum load resistance: 0 Ω

Maximum load resistance: 500 Ω



**SuperSystems**  
incorporated

7205 Edington Drive  
Cincinnati, OH 45249  
513.772.0060 **phone**  
513.772.9466 **fax**

[www.supersystems.com](http://www.supersystems.com) 800.666.4330