

# HYAO-1

## ANALOG OUTPUT MODULE



### HYAO-1 Analog Output Module

The HYAO-1 Analog Output Module is an accessory for the HY-OPTIMA®/ HY-ALERTA® 5000 Series of H2scan hydrogen sensors, the industry's #1 solid-state hydrogen sensor technology in a robust, yet compact package. Rated for a wide hydrogen and temperature range, the HY-OPTIMA/ HY-ALERTA 5000 Series with the HYAO-1 accessory leads the industry in ease of retrofitting a hydrogen sensor package to a variety of process monitoring and safety solutions.

#### Benefits

- The accuracy of the HY-OPTIMA/ HY-ALERTA 5000 hydrogen sensor is maintained
- Enables analog connection required by legacy systems that can support digital communication from the sensor
- Provides analog connectivity required by legacy systems that cannot support communication from the sensor (no protocol mapping required)
- Drives local displays and alarm panel
- Uses available signal cabling between transformer cabinet and control room
- Provides air-gapped and continuous information for the most demanding cybersecurity requirements
- Local LED display with diagnostic alert
- Rugged IP68 enclosure with wide operating temperature makes the HYAO-1 suitable for all industrial and outdoor applications
- Small and unobtrusive form factor simplifies installation

#### Complement Your Hydrogen Sensing Capability With The HYAO-1

**Cost-Effective:** Minimizes complexity and uses the existing infrastructure

**Seamless Integration:** Connects to PLC and legacy systems with industry standard 4-20 mA

**Rugged and Reliable:** Rugged enclosure and robust design for harsh industrial environments

**Easy Installation:** "Plug-and-play" connectivity with H2scan sensors

**Fast Time to Value:** Hours, not weeks or months



## Operating Conditions

### Environmental

Ingress Protection	IP68
Operating Temperature (Ambient)	-40°C to 70°C (-40°F to 158°F)
Shock	30g, shock duration, 18 ms (IEC 60068-2-27)
Vibration	3-axis sinusoidal, wide-band and random [simulated long-life] (IEC 60068-2-6 table C.2, IEC 60068-2-64 paragraph A.2, category no.2, IEC 61373:2010 Cat 1B section 9)

### Mechanical

Dimensions H x W x D	120 x 125 x 62 mm (4.72 x 4.92 x 2.44 in)
Weight	387 g (0.85 lbs)

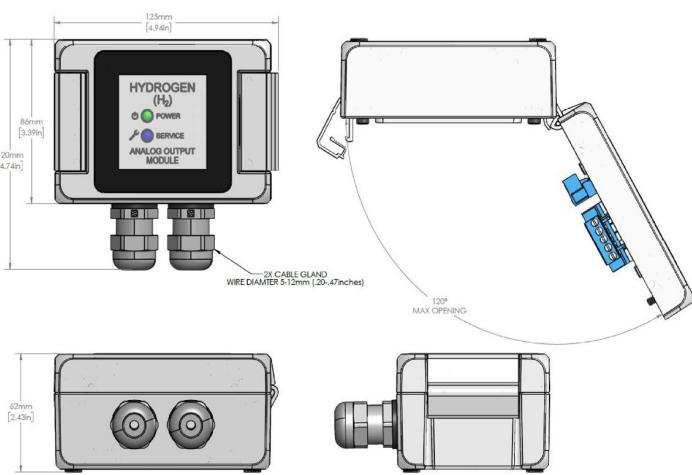
### Electrical

External Power Supply Required	9, 12, 15, 24, 30, 36 or 48 VDC nominal (8.55 to 50.4 VDC)
Analog Output Range	Nominal 4-20 mA with over-range capability up to 24 mA
Power Consumption	13 W minimum (includes total power consumption of HYAO-1 and HY-OPTIMA/HY-ALERTA sensor)

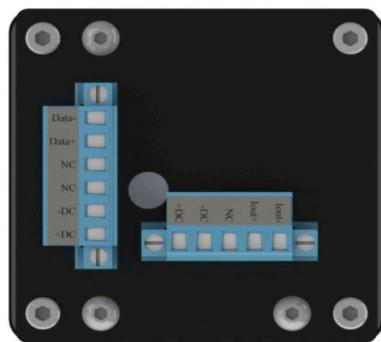
### Physical

Housing	Die Cast Aluminum
Sealing	<b>Housing:</b> Gasket sealed precision die-cast housing with adhesive sealed chemically strengthened glass. <b>Cable Glands:</b> IP68 sized for 5-12 mm (0.20-0.47 in) wire diameter.

### HYAO-1 Dimensions



### Internal Wiring/Settings



Specifications subject to change without notice  
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