BRO-1
BATTERY ROOM RELAY MODULE

H2scan®
Advanced Hydrogen Sensing

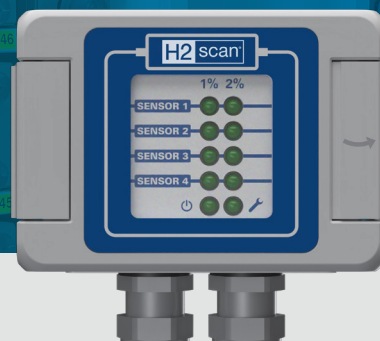## BRO-1 Battery Monitoring Relay Module

The BRO-1 battery monitoring relay module is a specialized monitoring device designed for use with the HY-ALERTA® sensors to maintain compliance with regulations and standards. It ensures the safe operation of battery rooms and enclosures. For systems requiring dry contact closures to transmit alarm set points as part of their design, the BRO-1 offers seamless compatibility. It converts the Modbus signal emitted by the HY-ALERTA sensor into dry contact outputs, facilitating integration with existing safety and monitoring systems.

Benefits

- Provides set points for the HY-ALERTA sensor
- Provides communications to building management, SCADA, and PLC systems
- No maintenance is required
- Enables analog connection required by systems that cannot support Modbus communication

Applications

Telecom central offices

Data center UPS

Utility applications and substations

Battery energy storage applications

Forklift charging stations

Specifications

General	
Dimensions	125 x 62 x 120 mm (4.94 x 2.43 x 4.74 in)
Input/Output	Modbus over RS-485/ dry contact
Configuration	Supports up to four sensors in series
Programming	Factory configured
Power Options	2-wire DC power input of 9 to 48 volts, 13 W (24 VDC or 48 VDC Power Supply is recommended)
Enclosure	NEMA 4X rated, wall mounted with 3 mm (0.11 in) hex key

Display	
Power LED	Green LED indicates unit is powered
Service LED	Red LED indicates is RS 485 communications is lost between the BRO-1 unit and any sensor
Sensor 1% LEDs	Four LEDs indicates if sensors 1-4 is sensing H_2 with concentration of 1%
Sensor 2% LEDs	Four LEDs indicates if sensors 1-4 is sensing H_2 with concentration of 2%

Relays	
Relays	4 SPDT (Form C) internal rated max 20 A at 110 VDC and 380 VDC
Alarm Thresholds	The unit has four relays: 1% H_2, set-point alarm/ 2% H_2 set-point/alarm, fall indicator alarm
Fail Safe Operation	In case of power failure, relay will go to alarm state

Installation	
Mounting	4 mounting holes, #10 18-8 stainless steel screws included
Grounding	External grounding kit included
Moisture Abatement	Desiccant package for moisture removal inside of the BRO-1 module included
Quick Start Guide	Materials list, installation instructions, mounting template, grounding instructions, configuration instructions