



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 RTU 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 RTU 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 watts (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 @ 110 VDC and 380 VDC
Alarm Thresholds	The unit has four relays: 1% H ₂ , setpoint alarm/ 2% H ₂ setpoint/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