

BatteryInformer®

BI-12V-Smart-400-NO-33



Understanding real-time battery state of health and battery environmental conditions is paramount to critical to engine starting and generator applications.

The BatteryInformer Smart 400 onboard discrete battery monitoring and notification device provides a new level of cost effective battery management whereby indicating a battery's true end of life.

The Smart 400 provides measurement of battery cranking health, for in-service lead acid and NiCd batteries used in a generator /engine starting applications.

Performance and Diagnostics

- Replace battery indicator
- Cranking Health (CH) test
- Cranking State of Health (Csoh) analysis
- Automatic reset for use with new batteries
- Battery voltage
- Last Crank Performance
- Low battery / recharge indicator
- Extreme temperature indicator



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Alarm Table

Event	Contact Closure	LED	Display Icon	Display Action
Default - Normal				None
High Voltage (Voltage > 15V for 3 min or more)	✓	Red		Flash Voltage
Low Voltage (Voltage < 12.1 for 3 min or more)	✓	Red		None
Cranking Health =< 10%	✓	Red		Icon On
Cranking Health 11% to 30%				Icon On
Temp =<-10C				Icon On

Detailed procedure and actions for alarms provided in separate documentation.

Specifications

Description	Battery Failure Warning System for Generator Engine Starting Batteries
Part Number	BI-12V-Smart-400-NO-33
Applications	All 12V batteries used to power engine cranking systems: Diesel and Gas Generators
Nominal voltage	12V DC
Operational voltage range	9 - 16V DC
Power consumption	<15mAh (sensor)
Operating temp	-15°C to 85°C*
Battery size / type	200 to 3000 CCA Rechargeable VRLA, SLA, AGM, NiCd, WET, MF
Battery connection	8mm Ring Terminal
Communication connection	RJ11, 2 conductor, 30cm
Alarming	Voltage Free, Dry Contact Closure / switch Normally open /closed: 12V-60V 100 mA continuous Opto-isolated relay capable of voltage biases from 4-60VDC up to 60mA
Display	LED Red-Light and LCD - Digital, graphical, icons
Test frequency	Every engine cranking event
Test time	~0.03 sec.
Reverse wiring protection	Yes

* Sensor continues to operate down to -40C. LCD display loses function if temp below -15C.

Smart-400

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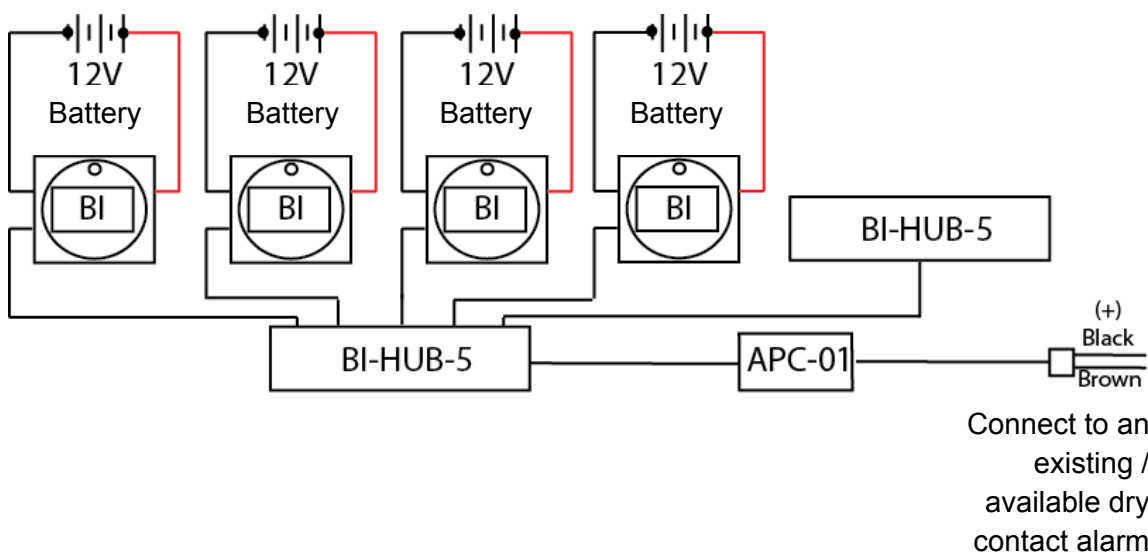


Physical Specifications

Dimensions	55mm x 55mm x 19mm (sensor)
Case material	ABS Plastic (IEC 68-2-32)
Water resistance	IPX-5
Mounting	Surface mount (adhesive/mechanical)

Application – Installation (NO)

Illustration shows a (4) battery configuration with the option to connect an additional HUB with up to (4) more batteries. The use of a HUB is required with (2) or more batteries. If (1) battery is used the APC-01 can be connected directly to the Smart-400 alarm RJ11 connector omitting the need for the HUB.



Configuration Matrix - Accessories

Part Number	Generator Battery Quantity				
	1	2	4	6	8
BI-12V-Smart-400-NO-33	1	2	4	6	8
BI-Hub-5	0	1	1	2	2
APC-01	1	1	1	1	1