

Sure Cross® DX81-LITH FlexPower Supply Module



Datasheet

The DX81 Battery Supply Module delivers and manages DC voltage from one 3.6 V DC lithium primary battery. Battery life is application specific. Contact Banner Engineering's application engineers for a battery life calculation for your specific application.



- Wireless solution for powering a *FlexPower* Node and sensor device
- Unique power management system to run the *FlexPower* Node and a device through switched power outputs for up to five years, depending upon the power requirements of the device
- Replaceable 3.6 V DC lithium "D" cell battery
- IP67 sealed enclosure

For additional information, updated documentation, and a list of accessories, refer to Banner Engineering's website, www.bannerengineering.com.

Refer to the Class I Division 2/Zone 2 control drawings (p/n [143086](#)) for wiring specifications and limitations.

Model	Power	Battery	Connection
DX81-LITH	3.6 V DC battery	One 3.6 V Lithium "D" Cell	150 mm (6 in) cable with a 5-pin M12/Euro-style female quick disconnect connector

Install or Replace the Battery for a DX81 Model

To replace the lithium "D" cell battery in the FlexPower Supply Module, follow these steps.

1. Unplug the **DX81-LITH** or **DX81H** FlexPower Supply Module from the Sure Cross® device it powers.
2. Remove the four screws mounting the battery module face plate to the body and remove the face plate.
3. Remove the discharged battery by pressing the battery towards the negative terminal to compress the spring. Pry up on the battery's positive end to remove from the battery holder.
4. Install the new battery or batteries.
5. Verify the battery's positive and negative terminals align to the positive and negative terminals of the battery holder mounted within the case. Caution: There is a risk of explosion if the battery is replaced incorrectly.
6. After replacing the battery, allow up to 60 seconds for the device to power up.
7. Properly dispose of your used battery according to local regulations by taking it to a hazardous waste collection site, an e-waste disposal center, or any other facility qualified to accept lithium batteries.



For outside or high humidity environments, dielectric grease may be applied to the battery terminals to prevent moisture and corrosion buildup.

As with all batteries, these are a fire, explosion, and severe burn hazard. Do not burn or expose them to high temperatures. Do not recharge, crush, disassemble, or expose the contents to water.

The battery may be replaced in explosive gas atmospheres.

For non-hazardous locations, the replacement battery is model **BWA-BATT-011**. For non-hazardous or hazardous locations, the replacement battery is Xeno model XL-205F, Banner model **BWA-BATT-001**. For pricing and availability, contact Banner Engineering.



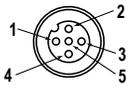
WARNING:

- Potential electrostatic charging hazard — only clean with a damp cloth.
- The replacement battery **MUST** be a Banner approved battery, model number **BWA-BATT-001**. Use of a different battery will **VOID** the intrinsic safety rating of this device and may result in an explosion!
- When replacing the battery, the negative end of the battery holder is the side with the spring terminal. This side is marked with a minus (–) sign.
- Do not attempt to recharge the battery. These batteries are not rechargeable. Recharging may cause serious injury to personnel or damage the equipment. Replace only with factory recommended batteries.



5-pin M12/Euro-style Wiring

Use the battery supply module to power *FlexPower*® devices only.

5-pin M12/Euro-style Female Connector	Pin	Wire Color	Description	DX80...C Terminals
	3	Blue	DC common (GND)	V-
	5	Gray ¹	3.6 V DC	B+

Specifications

Estimated Battery Life

19,000 mA-hours

Wiring Access

One 1/2-inch NPT port with a 5-pin M/12Euro-style quick disconnect fitting and 150 mm (6 in) cable

Housing

Polycarbonate housing and rotary dial cover; polyester labels; EDPM rubber cover gasket; nitrile rubber, non-sulphur cured button covers
 Weight: 0.26 kg (0.57 lbs)
 Mounting: #10 or M5 (SS M5 hardware included)
 Max. Tightening Torque: 0.56 N·m (5 lbf·in)

Environmental Rating

IEC IP67; NEMA 6

Operating Conditions²

-40 °C to +85 °C (-40 °F to +185 °F)
 95% maximum relative humidity (non-condensing)
 Radiated Immunity: 10 V/m (EN 61000-4-3)

Shock and Vibration

All models meet IEC 60068-2-6 and IEC 60068-2-27 testing criteria
 Shock: 30G 11 ms duration, half sine wave per IEC 60068-2-27
 Vibration: 10 Hz to 55 Hz, 0.5 mm peak-to-peak amplitude per IEC 60068-2-6

Certifications



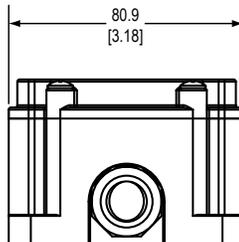
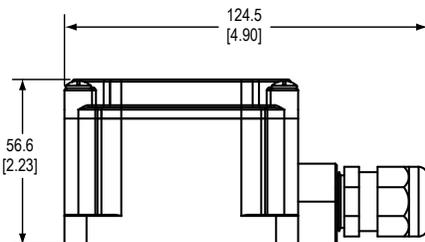
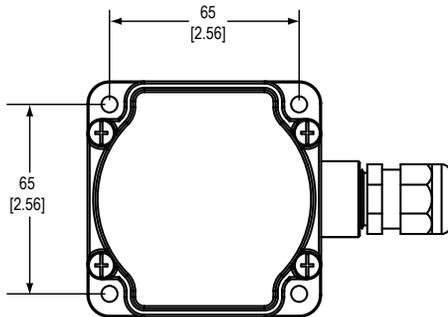
CSA: Class I Division 2 Groups ABCD, Class I Zone 2 AEx/Ex nA II T4 – Certificate: 1921239



ATEX: II 3 G Ex nA IIC T4 Gc (Group IIC Zone 2) – Certificate LCIE 10 ATEX 1012 X

Refer to the Class I Division 2/Zone 2 control drawings (p/n 143086) for wiring specifications and limitations. Install the device in a suitable enclosure with provision for connection of Division 2 / Zone 2 wiring methods in accordance with local codes, as acceptable to the local inspection authority having jurisdiction. All battery-powered devices must only use the lithium battery manufactured by Xeno, model XL-205F (Banner model number **BWA-BATT-001**).

Dimensions



¹ Do not apply more than 5.5 V DC to the gray wire.

² Operating the devices at the maximum operating conditions for extended periods can shorten the life of the device.

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