SureCross DX81H Battery Supply Module for the DX99

Datasheet

- Wireless solution for powering a DX99 FlexPower Node and sensor device in Class I, Division 1, Groups A, B, C, D; Zone 0, Group IIC environments
- Unique power management system to run the FlexPower Node and a device through switched power outputs
- Replaceable 3.6 V dc Lithium “D” cell battery
- IP67 sealed enclosure

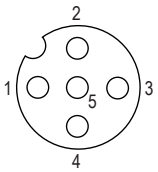
FlexPower systems allow for a true wireless solution as the Node can be powered by battery power (3.6 to 5.5 V dc). Battery life is application specific. Contact Banner Engineering’s application engineers for a battery life calculation for your specific application.

For additional information, updated documentation, and accessories, refer to Banner Engineering's website, *www.bannerengineering.com/surecross*.

Model	Power	Batteries	Cable
DX81H	3.6 V dc battery	One 3.6 V Lithium "D" Cell	5-pin Euro pigtail QD

5-pin Euro-Style Female Wiring for DX81H

Only FlexPower® DX99 devices may be powered from this supply.

5-pin Euro-style Female Connector	No.	Wire Color	Description
	3	Blue	dc common (GND)
	5	Gray [1]	3.6 V dc

Replacing the Battery (DX81 and DX81H Battery Supply Module)

For outside or high humidity environments, apply conductive grease to the battery terminals to prevent moisture and corrosion buildup.

To replace the lithium "D" cell battery in the DX81 FlexPower® battery kit, follow these steps.

1. Unplug the battery device from the SureCross device it powers.
2. Remove the four screws mounting the battery pack 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. Replace with a new battery. Only use a 3.6 V lithium battery from Xeno, model number XL-205F.
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.

[1] Do not apply more than 5.5 V dc to the gray wire.

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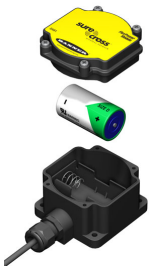
6. After replacing the battery, allow up to 60 seconds for the device to power up.
7. Properly dispose of your used battery according to local regulations by taking it to a hazardous waste collection site, an e-waste disposal center, or any other facility qualified to accept lithium batteries.



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.

Replacement battery model number: BWA-BATT-001. For pricing and availability, contact Banner Engineering.

Battery Replacement Warnings

WARNING:

- Do not replace battery when an explosive dust atmosphere may be present.
- 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.

Specifications

General

Estimated Battery Life
19,000 mA·hours

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)

Wiring Access
One 1/2-inch NPT with 5-pin Euro-style 150 mm pigtail QD

Environmental

Environmental
Rating: IEC IP67; NEMA 6; (See UL section below for any applicable UL specifications)
Operating Temperature: −40 to 70 °C
Operating Humidity: 95% max. relative (non-condensing)
Radiated Immunity: 10 V/m, 80-2700 MHz (EN61000-6-2)

Shock and Vibration
IEC 68-2-6 and IEC 68-2-7
Shock: 30g, 11 millisecond half sine wave, 18 shocks
Vibration: 0.5 mm p-p, 10 to 60 Hz

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

Certification

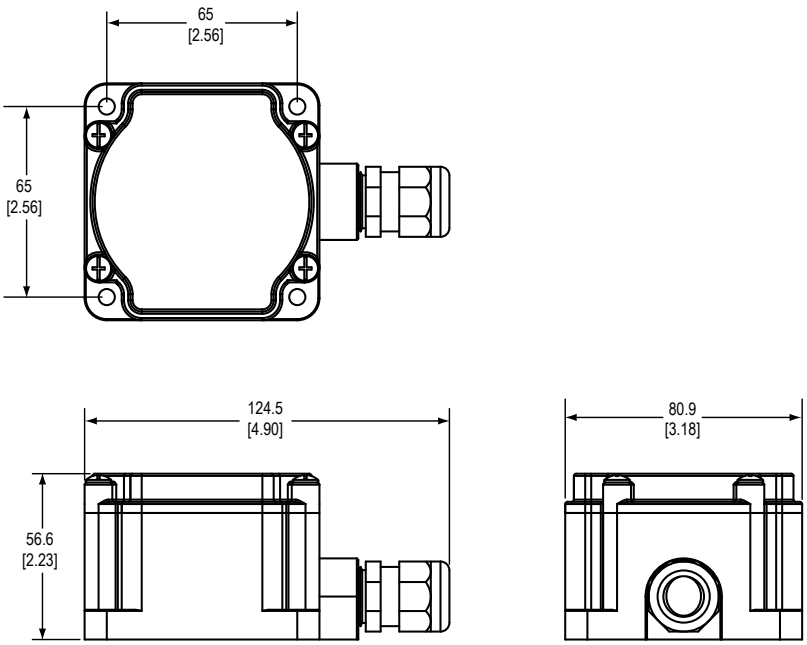
DX99 Polycarbonate Housings

CSA: Class I, Division 1, Groups A, B, C, D (Ex ia IIC / AEx ia IIC T4) Certificate: CSA 2008243

LCIE/ATEX: Zone 0 (Category 1G), Temperature Class T4 (II 1 G / Ex ia IIC T4) Certificate: LCIE 08 ATEX 6098 X

Notes: Special Conditions for Safe Use imposed by Intrinsic Safety Certificate LCIE 08 ATEX 6098 X: Ambient temperature range is –40 to 70 °C. SureCross® DX99 FlexPower devices can only be connected to Intrinsically Safe certified equipment or simple apparatus as defined by EN 60079-11. All connected equipment must comply with the Entity Parameters (Safety Parameters) listed in the *Control Drawings* (p/n 141513). The device must only use a lithium battery manufactured by XENO, type XL-205F.

DX81 and DX81H Dimensions



Warnings

Violating Warnings. The manufacturer does not take responsibility for the violation of any warning listed in this document. Make no modifications to this product; any modifications to this product not expressly approved by Banner Engineering could void the user's authority to operate the product. All specifications published in this document are subject to change; Banner reserves the right to modify product specifications or update documentation at any time. For the most recent version of any documentation, refer to: *www.bannerengineering.com*.

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