

LifeSafety Power Flexes More Power Management Muscle

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LifeSafety Power makes a line of intelligent power panels, available in a bewildering array of configurations. This is not meant as a negative — in fact, it's one of the company's selling points. By making systems modular, they can be configured for a tremendous variety of applications, expanded rather than replaced, and ultimately reduce installation and support costs for many applications. Throw in some pretty robust monitoring and notification features and many integrators will start coming up with other applications for the product. In fact, we started out thinking that this would have to be a specified product for an integrator to bother with it but came around quickly after playing with it.

iScan models are remote-managed power supply/battery charger systems specifically designed for the access control segment of the life-safety industry. The panels provide eight to 24 managed activation inputs, each capable of voltage or dry contact activation and eight to 24 monitored and controlled relay outputs, programmable to either of two system voltages (in a dual voltage configuration), fail-safe, fail-secure, fire alarm override, and AC loss override for egress lock control. Additionally, each managed output may be individually activated or deactivated through an embedded browser interface and monitored for voltage and current values via network or Internet.

We tested the FlexPower iScan150B-8 managed intelligent power system, an eight-door model that supports dual voltage outputs, eight inputs, eight outputs, and the Web interface. For the purpose of this review, we will refer to the unit tested and the series as the iScan.

CONSTRUCTION

The iScan starts out as a well-designed, solidly built 20- X 16- X 4.5-inch UL/ULC/CSA listed steel enclosure that doesn't appear to cut any corners. The hinged door was removable (after removing the ground strap), the top rear mounting holes had keyhole slots for ease in hanging, and the hole pattern allows for complete installation without removing any internal components. The extensive hole pattern on the back panel was clear evidence of the sheer variety of configurations available, and boards are mounted utilizing nylon standoffs, both screw-down and compression fit.

There are other installer-friendly touches throughout. The CR2032 coin cell battery used for clock back-up on the network module is vertically oriented, allowing for easy battery removal — and the top is marked with the polarity for easy battery orientation. Connectors are all removable, the customer interface connections are limited to three different types (all fairly common, although sev-



iScan150B-8

eral colors are used) and the fuses are standard automotive type. There's also a tamper switch, a sticker showing configuration information and well written printed manuals, including checklists, application examples, and replacement part info. While Web sites and laptops are ubiquitous, we appreciate a printed manual for a product this complex, as a step-saver (no need to download and print).

FEATURES

The model we tested was extremely feature rich, as befits this product line. It included the DC power supply (configurable for 12 or 24VDC), and an accessory board (B100) that provided a second supply voltage that was user configurable from 5-18VDC (5-9VDC if the main supply board was set to 12VDC). Both of these boards were battery backed up from the same battery (or array of batteries) and all boards "talk" to each other via a FlexIO connection, passing along any fault status information for the system to manage. On the input/output side, our test unit featured an

LIFESAFETY POWER iSCAN 150B-8

SPECS

- ◆ Flexible and configurable power management system with remote software control
- ◆ Available preconfigured or field built as needed

PROS

- ◆ Solid construction
- ◆ The most flexible power system imaginable
- ◆ Excellent documentation, diagnostics and videos for setup
- ◆ Limited lifetime warranty

CONS

- ◆ Software isn't as polished as the rest of the product

SSI's BENCH TEST

unmanaged “simple distribution accessory” (D8), providing eight fused outputs that could be individually set (via jumpers) to one of two different DC voltages; the first coming from the main power supply and the second from the B100 board. Or you could configure one set of outputs to fail-safe and one set to fail-secure. Or you could use two main power supplies and double the available current. Or if you wanted to do a mix of these various functions, additional D8 boards can easily be added.

We also had a managed device control module (M8), and that's where the fun begins. This module included eight programmable inputs, with a lot of flexibility. They could each individually be programmed to respond to the application of voltage, removal of voltage, normally open or normally closed dry contact transition, or activation or deactivation through software. The voltage range (9-33VDC) was comprehensive enough to allow this unit to monitor power supplies for other devices and react accordingly, if desired. As with the unmanaged D8, each of the eight outputs could be fed from power supply one or two, set for fail-safe or fail-secure, and respond to power loss or fire alarm overrides if desired. Tying this all together was a network communication module (NL4) that facilitated communication and simplified system programming. It was also capable of logging a number of events, and communicating them via E-mail using a fairly comprehensive (and configurable) CSV report readable by most spreadsheet software.

SETUP

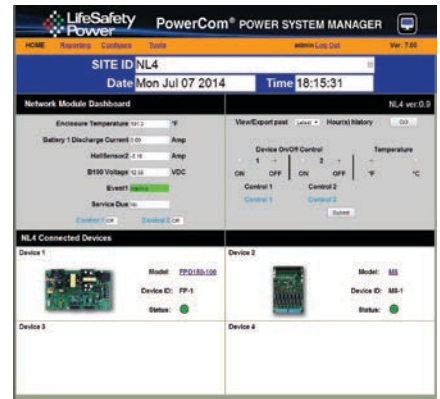
Our test unit came with all boards connected and set up, a tremendous time-saver. After reading through the manuals, I decided to take things apart and put them back together again, partly to gauge how simple that would be. Midway through I discovered an excellent series of professionally produced videos (“Power Pro TV”) hosted by LifeSafety's Joe Holland, available on YouTube. These effectively step the viewer through the setup and configuration process for virtually all of the boards I had. Coupled with the printed manuals and an extremely helpful array of indicator lights on each board (including power line status and faults), the setup was as simple as reasonably expected for a product of this complexity and configurability.

TESTING

At the end of the day, this is a power supply, and in our limited evaluation it seemed bullet-proof in that regard. We tested the various voltage outputs both with devices and a volt meter and found them to be within specs. Triggers worked as advertised, and software configuration (sending re-



The empty space within the iScan150B-8 box reflects its ease of upgrading and configuration, which is also prominent in its management system (right).



ports via E-mail) was tested as well. Removal of the back-up battery triggered a fault (you can jumper it out if you're feeding the supply through a larger UPS) instantly, and every test we could think of was passed with flying colors. Our test unit arrived with a “burned electronics” smell but that must have been a byproduct of the LifeSafety Power quality control process. The smell dissipated, there was no visible damage and thermal measurements throughout the testing process did not reveal anything out of the ordinary.

If we were looking for an area for improvement, it would be the lack of polish in the power system manager software. In this era of flashy applications on tablets and cellphones, the crude, industrial interface (with terms like “fill all” for copying settings), and wide array of font sizes, styles, and coloring harkened back to another era. The default NTP (time) server address did not work out of the box, but that was easily fixed by replacing it with another one. And I can't imagine why an end user would use the box for DHCP IP address configuration, yet there's a setting for it. If you know what I'm talking about, you know what I mean (if you don't, you're proving my point). Then again, this is commercial/industrial use software and is probably in good company in that area.

CONCLUSIONS

So who would buy such a system? Our first thought would be that this would have to be designed into the spec for someone to use it. Basic, bare-bones power supplies are likely quite a bit cheaper, and it's a competitive world out there. But when you factor in the expandability, modular design, lifetime warranty and ability to save service visits by rebooting a variety of components remotely, this starts to make sense in a wider variety of applications. If you're an integrator looking to add features while crossing power management off of your list of things to worry about, take a close look at the iScan. ssi

VERDICT

FEATURES 1 2 3 4 5

CONSTRUCTION 1 2 3 4 5

SETUP 1 2 3 4 5

PERFORMANCE 1 2 3 4 5

OVERALL 1 2 3 4 5

Products are tested and reviewed by R. Grossman and Associates Inc., an independent consulting firm specializing in electronic security products and projects. For more information, visit www.tech-answers.com.

