info
SHEET

Why Your Customers Should Use Our Switch?

When interconnecting Ethernet equipment within a control panel, there is always a temptation to select off the shelf, office-grade Ethernet switches from one of the mass retail merchandisers. That's because the mind-set is, if the switch works at home, it should work in a control application. However, there are undesirable consequences using a retail switch with a Building Automation System (BAS) that can negatively impact your customer's bottom-line. Consequences include poor switch dependability and increased project costs.

Office-Grade Switch Power Option Not Ideal

Office-grade equipment has no provisions for redundant power, leaving the possibility of a serious power disruption to your customer's business operations.

Retail and office grade equipment require external regulated 5 DC power supplies that plug into a common line voltage duplex outlet. These power supplies, known as "wall warts" hang from duplex receptacles and are not designed to be secured to outlet boxes by themselves.

The simple push on connector of the 5 volt plug can easily become dislodged. This results in the disruption of your customer's business operations and increased project expenses from service calls and related service needs. Also, if a receptacle is not present in the control panel, it must be provided at an extra cost. Many municipalities require the wall wart to be attached to a wall plate which creates the need for additional labor. Failure to follow requirements can result in a "red tag" given by the electrical inspector.

CTRLink Ethernet Switch Power Alternative

You can power Professional BAS Ethernet switches with the same power source of the installed equipment in the control panel. There is no need to have higher voltages present in the panel to power the Ethernet switch.

Professional BAS Ethernet switches provide positive locking terminal strips - securely locking the power supply to the switch - eliminating power disruption. The screw-style power connector is easy to wire and durable for shipping to the job sites.
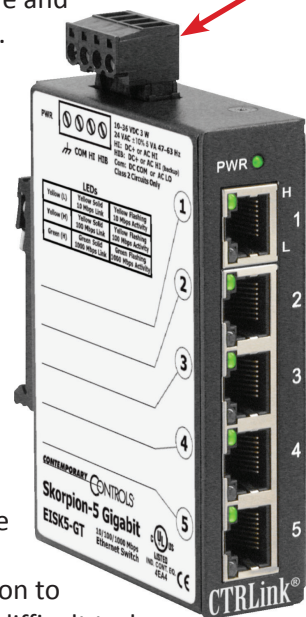
Redundant power connections allow the switch to continue to run without disruption from the loss of primary power. The operating voltages allow for a backup power source without identical electrical criteria. Any voltage source in the specified range can serve as a backup power source - including batteries.

Office-Grade Switch Mounting Options?

Using retail switches with ineffective mounting can make explaining the unsecured, clumsy looking installation to the customer or a code inspector a difficult task. Office-grade switches are designed for desktop and table top mounting. Mounting a retail switch in a control panel is awkward and increases costs with extra labor and materials. For example, having to fabricate a bracket or shelf to hold the switch because often there are no available mounting holes in the unit. Amazingly, there have been instances where office-grade switches have been mounted with tie wraps to secure the devices. Unbelievably, in some extreme and hasty cases even Velcro® or duct tape has been used.

Just as unfavorable, when mounted in the control panel the retail switch does not allow the system integrator to view both of the LEDS and the connectors together. Retail switches typically have the LED indicators on the opposite side of the RJ-45 connectors.

Positive locking terminal strip provides a secured power connection

Skorpion-5 Gigabit
EISK5-GT
10/100/1000 Mbps
Ethernet Switch

CTRLink®

CONTEMPORARY CONTROLS®

CTRLink Ethernet Switch Mounting Alternative

Professional BAS Ethernet switches are designed and built for control panel mounting. Flanges are provided for panel mounting along with a DIN chip for DIN-rail mounting. The standardization of panel layouts and design is certain and DIN-rail mounting is secured for years. Design it once "set it and forget it," with no worries for future builds.

Retail Switch Product Consistency

Retail and office grade switches consistently change. Even the electronics and performance can change in the same make and model. Just as unfavorable, the equipment size and packaging differs which encourages uncertainty with product planning and ordering.

CTRLink Ethernet Switch Product Consistency

System integrators make money with no surprises in installation, commissioning, and start-up. Professional BAS Ethernet Switch manufacturers such as Contemporary Controls understand this and provide consistently with product form, fit, performance and function.

Both the LED indicators and RJ-45 connectors are located near each other and easily viewable with the control panel door open. Installation is precise, well organized and the switches fit nicely with the other equipment.

Professional BAS Ethernet switches are rugged which allow the devices to function in less desirable and more demanding EMC environments. Four layer printed circuit boards and input filters are used to meet the industrial limits of electromagnetic compatibility (EMC) standards EN 55022 and EN 55024.

Temperature range is a big consideration for installed Ethernet switches. Two temperature range specifications are widely accepted for ultimate performance. The 0 to 60° C temperature range is consistent with the ratings of BAS controllers, security, and fire equipment. Second, is the -40 to 75° C wide outdoor temperature range for more demanding conditions. Retail and office grade switches are rated from 5 to 40° C, or even more unfavorable, not rated at all. You don't want your customer's switch to fail as a result of overstress from heat.

CTRLink BAS Ethernet Switches are built specifically for the demands of control applications. The devices are equipped with adequate amounts of LEDs that indicate crucial parameters such as data rate, activity, valid link, and duplex.

Professional BAS Ethernet switches provide an area for "as-built" field markings on the device itself to note connections with field equipment. This aids the system integrator to quickly locate the source of a problem.

Retail Switch Product Support

Customers will not receive the type and level of Ethernet product support that is required when purchasing office-grade switches from mass retail merchandisers. The shortage of product support can seriously set back your customer's operations when the need arises for Ethernet switch support. The lack of support knowledge complicates the system integrators service call, which can result in increased service costs.

CTRLink Ethernet Switch Product Support

When system integrators need additional product support our technical support team is a only a phone call away and available immediately to offer support in both English and Spanish. Common Ethernet switch features such as auto-negotiation, auto-MDIX, and advanced features such as virtual LANs, trunking, and simple network management protocol (SNMP) are often addressed. Ask any system integrator and he or she will most likely tell you that troubleshooting problems in the field is tedious and that Ethernet technology is and can be somewhat complex. That's one reason why selecting the right switch for the job along the right product support is preferred.

Regulatory Approvals

Most municipalities require a UL or CSA label applied to control panels. A common standard is UL 508 Industrial Control Equipment, which Professional BAS Ethernet switches comply. For more stringent applications, a UL 864 Smoke rating may be required. Retail and office-grade switches has neither of these approvals and installing a non-approved device in a UL control panel is a red flag in waiting. Professional BAS Ethernet switches carry these important safety ratings.

The Bottom Line

Key business benefits for choosing CTRLink Ethernet switches include higher return on investment from reduced maintenance costs, lower probability of switch failure and other unexpected issues that surface from using office-grade Ethernet switches in critical Building Automation System networks. It makes good business sense to invest wisely to preserve, protect and defend the data network infrastructure that supports your customers mission-critical information, automation and control functions.

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