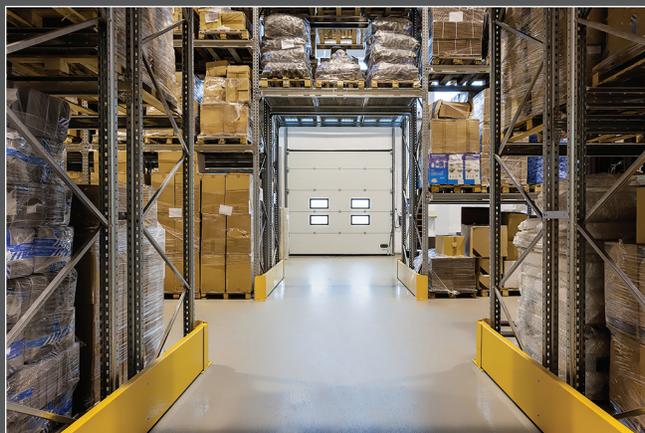


WAREHOUSE ACCESS CONTROL

Case Study

Remeo and Acenes Provide a New Cabling Solution to Solve Access Control Issues for a Large Online Retailer with Global Distribution



Acenes, an experienced security systems design and installation company, partnered with Remeo Wire & Cable to design and manufacture a series of composite access control cables to solve several significant issues that beleaguered a large online retailer with hundreds of warehouses worldwide.

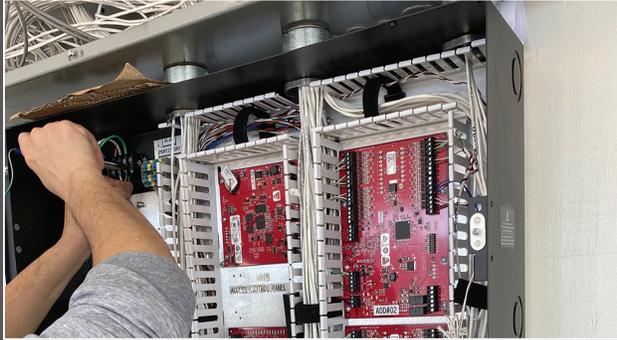
It was noticed by Acenes that, while this large online retailer had strong security hardware and software systems, its access control cabling scheme had many issues. Acenes observed the abundance of cables of various types that were required for warehouse access control, which frequently resulted in time-consuming and costly installation errors. A new cabling solution was designed using composite Access Control cables, a part of Remeo's Vigilance™ Security Cable Series, to reduce the number of cables pulled and provide better cable organization and identification to minimize the confusion at the termination points.

After several successful installations around the U.S., this retail organization established Remeo's Vigilance™ Access Control cables as the standard for use in the retailer's warehouse access control systems worldwide. Installations in this customer's warehouse and distribution centers will continue for some time to come.

Continued



Case Study



This "Before" image represents the massive number of cables that ran to the controllers, all in one color, that were the cause of many installation errors.



Remeë's Vigilance™ cabling solution for Access Control at DCs and warehouses features composite cable constructions and color-coded jackets.

THE PROBLEM:

Too Many Cables & Installation Errors

A large online retailer with worldwide warehouse operations has had strong security software platforms and related hardware to operate their very efficient security system. However, the cabling system for their rapidly growing access control needs was another story. With 30-50 access-controlled doors per warehouse and the mandatory 3-5 cables needed per door, plus other devices, there were roughly 200-250 cables that needed to be pulled to run to the various security system panels in a single warehouse. Wires would be labeled, but mistakes were made, and some wires ended up being mixed up and mislabeled, while other wires were confused and terminated to the wrong control panels for a variety of reasons.

This process typically caused many installation errors when installers terminated cables to the wrong controller. The installation task was tedious with these inevitable errors. As a result, these mistakes were costly and slowed down the commissioning of the access control doors in the warehouse. Meeting the construction schedule is paramount for a large distribution company to meet its delivery goals. In addition, the cable constructions, which contained power components, were heavy and costly to ship, as well as being difficult to pull during installation.

THE SOLUTION:

Vigilance™ Composite Access Control Cables

To solve the problems that the variety and number of cables were causing, Acenes worked with Remeë to aggregate all 5 component cables (per door) under one jacket. This reduced the average number of cables pulled from 250 to just 50 – an 80% reduction in the number of individual cables pulled, which lowered the overall installation cost. In addition, the component cables and the outer jackets of the composite cables were all color-coded to simplify identification and improve proper termination.



Cable pulls were reduced by 80%, as demonstrated in this cable tray containing the three main warehouse door composite cables.

“The new cable designs streamlined the installation process by dramatically reducing the time needed to sort through the variety of individual cables.”

- Isac Tabib,
Security Systems Designer, Acenes

“*Reme’s Vigilance™ Series Access Control Cables already served both Wiegand and OSDP technologies, so Reme was an ideal choice to provide this warehouse cabling system, where both technologies were being used.*”

- Isac Tabib,
Security System Designer, Acenes

The Benefits of the New Vigilance™ Composite Cabling Solution

The various door types used in this customer’s warehouse can be divided into three basic types, so there were three colors used for the composite cables’ outer jackets, one for each door type – green (PN 4722A), blue (PN 4722B) and gray (PN 5465).

Green – Card Reader In and Card Reader Out

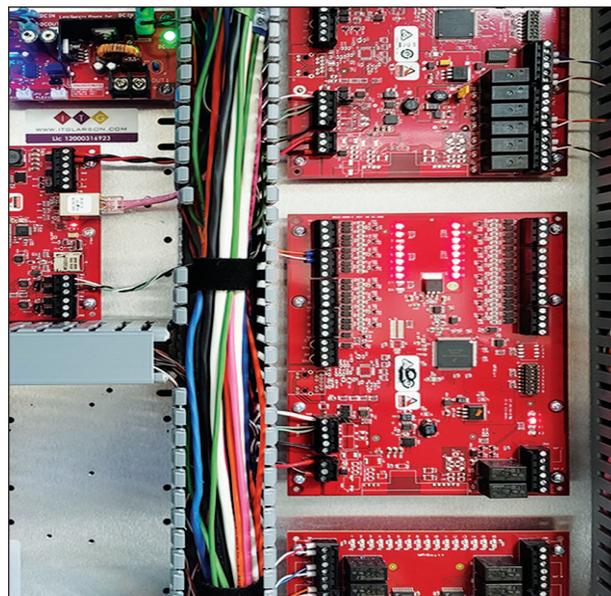
Blue – Card Reader In and REX (Request to Exit)

Gray – Emergency Exit Door with DSM, Horn/Strobe and Motion Sensors

Each of the three different composite cables included various component cables. The component cables each had a certain AWG size and jacket color and were designed to operate a specific access control function. A key challenge of this project was to minimize the O.D. of the component cables to reduce the weight and save shipping costs. Acenes also wanted the cumulative number of feet used at every foot marked on the cable jackets so the installer would know the number of feet left on the reel for use.

Flexibility with Wiegand or OSDP

The most important component cable is the 5333-SI for the Card Reader. The current standard reader protocol is Wiegand, however, the security industry is in the process of migrating to a new Open Supervised Device Protocol (OSDP). OSDP provides for the needed higher level of security. The Card Reader 5333-SI was designed to handle both current Wiegand readers as well as the new OSDP readers. Use of the 5333-SI preserves the cabling investment by making the cable future-proof.



The new control panel with simplified cabling and identification.

By adding an overall foil shield with drain wire to the 5333-SI component, the cable capacitance was lowered to 12.5 pF/ft., exceeding the capacitance requirement for Cat. 6 cables. Also, the 120 Ohms impedance requirements of the RS-485 protocol was matched. These design improvements allowed the 5333-SI to easily exceed RS-485 communication requirements.

Continued

Huge Selection and Personal Service

Remee
WIRE & CABLE

Engineered With You In Mind

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Why Remee?

Remee Wire & Cable was chosen to supply the Access Control Cabling Solution for this online retailer because:

- Acenes was comfortable with Remee's experience and expertise in manufacturing composite cable constructions
- Remee's response time and feedback was very quick
- Lead time was very good and deliveries have been on time
- Acenes management felt that Remee values, philosophy and business management practices were akin to their own

For more information about Remee Wire & Cable, please visit www.remee.com, email us at info@remee.com, or call **1-800-431-3864**.

About Acenes

Isac Tabib of Acenes has been in the Security Systems Design and Installation business for many years, handling the installation of thousands of access control doors. His experience and capability to solve security problems is notable. Isac was involved in countless high-profile projects such as JetBlue Terminal 5 (T5) at JFK International Airport, other airports, 330 Jay Supreme Court facility and many schools, municipalities, and commercial buildings worldwide.

Remee Wire & Cable
1751 State Rte 17A, Suite 1
Florida, New York 10921

Phone: 800.431.3864
Fax: 845.651.4160
Email: info@remee.com

www.remee.com



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