



Solar Power Solutions

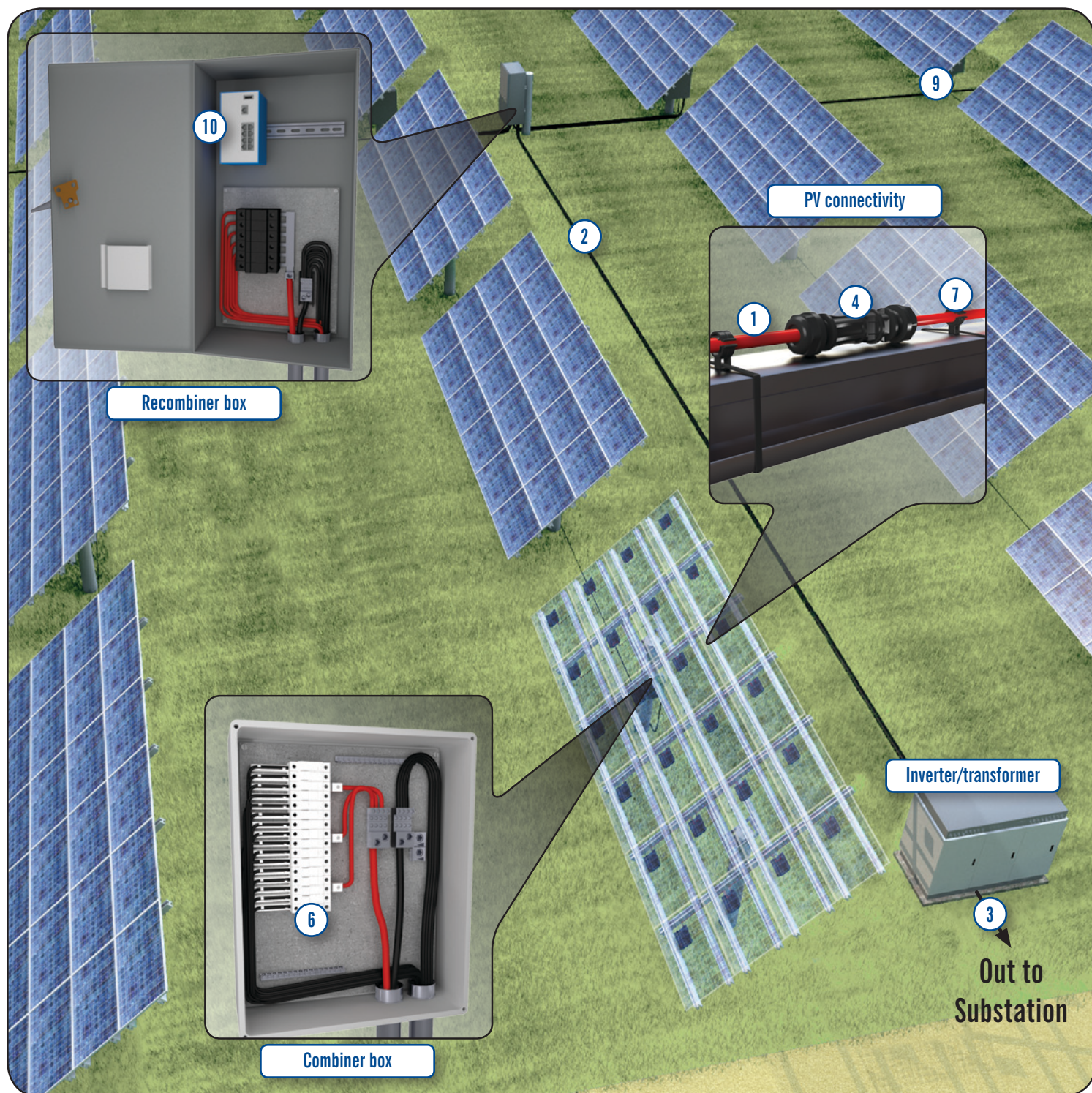
Wire and Cable • Photovoltaic Connectors
Combiner Boxes • Fuses • Grounding • Power Connectors
Physical Support Products • Cable Ties • Supply Chain Solutions

Products. Technology. Services. Delivered Globally.

ANIXTER

Utility-Scale Solar Farm

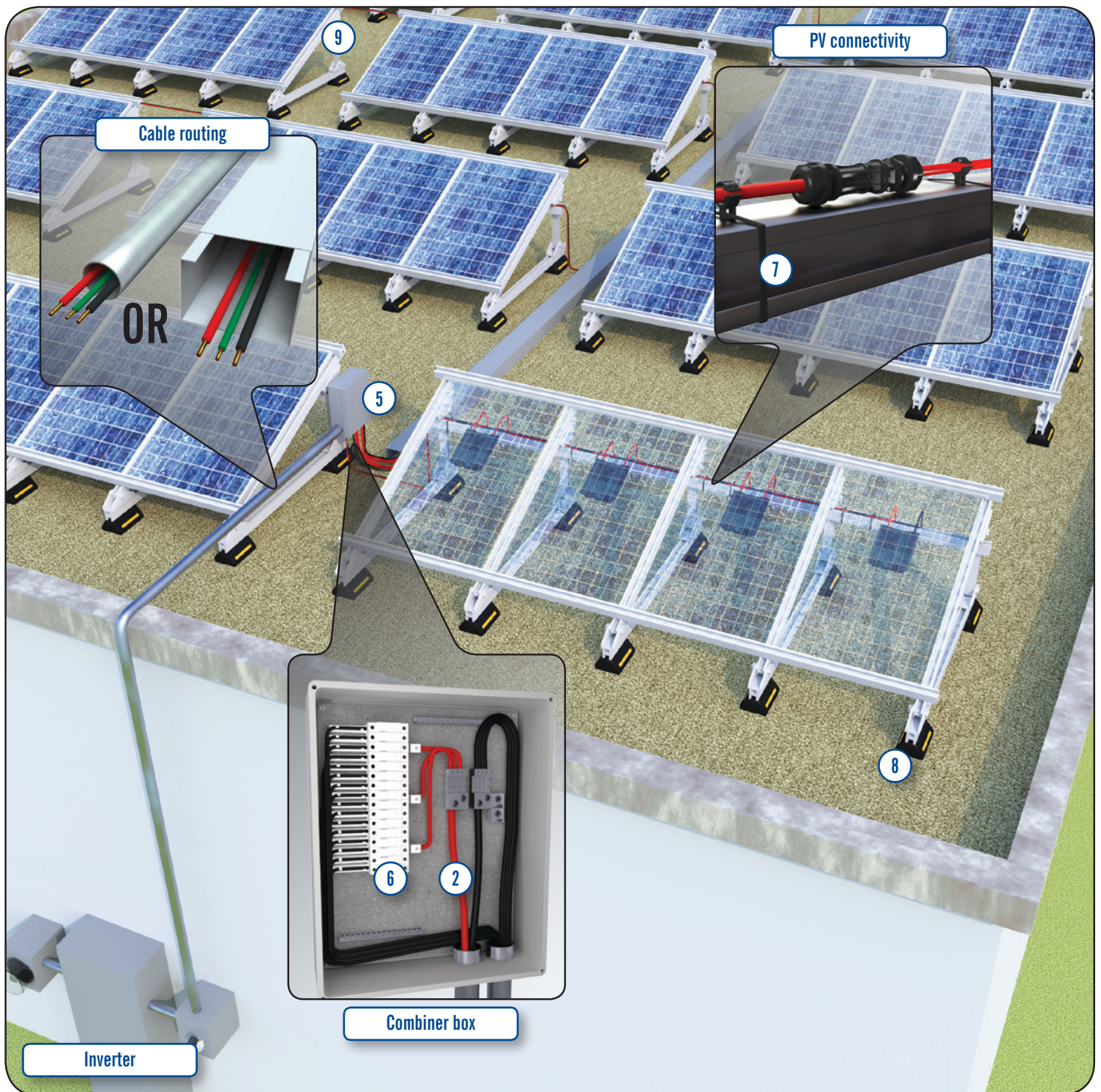
From solar farms to commercial rooftop applications, these diagrams highlight areas that Anixter serves with the latest products and technical expertise.



- 1 PV wire:** Used to interconnect solar panels; most commonly 10-14 AWG (Type PV Listed, UL 4703, CSA C 22.2 No. 271)
- 2 Collector cable:** Typically RWU90 copper or aluminum in a variety of AWG sizes (Type PV Listed, UL 4703, CSA C 72.2 No. 277)
- 3 Power cable:** Typically concentric neutral, copper or aluminum; most commonly 15 kV and 35 kV

- 4 PV connectors:** Specially designed connectors for PV wire; available in multiple interface types
- 5 Combiner boxes:** Combines output of multiple PV panels into a single collector cable
- 6 Fuses/fuse holders:** Protects panels from damage due to electrical failures

Commercial Rooftop



- 7 **Cable ties:** UV-stabilized products, specially designed for solar applications
- 8 **Dura bloks:** Supports panel structure while protecting roof surface
- 9 **Grounding:** Maintains safe ground plane throughout solar generating system
- 10 **Ethernet switch:** Manages communications and data acquisition systems

Wire and Cable

Photovoltaic Wire – Panel Interconnect Wire

- Copper conductor
- XLPE insulation
- Type PV Listed, UL 4703: 600 V, RW90, 1 kV or 2 kV
- 1 kV RWU90, CSA c22.2 No. 38-05
- Photovoltaic cable CSA, C 27.2, No. 271 (2011)



Collector Cable – RWU90

- Aluminum or copper conductor
- 1 kV RWU90 for direct buried application
- Type PV listed



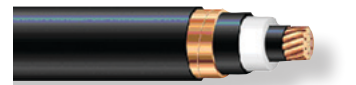
15 kV or 35 kV Concentric Neutral Power Cable

- Aluminum or copper conductor
- CSA C 68.3 (68.5) future
- TRXLP insulation or insulation
- Copper wire metallic shield
- Polyethylene jacket or PVC
- Direct burial applications
- FT-1 90°C



15 kV 133% or 100% Insulation Level Power Cable

- Copper or aluminum conductor
- CSA 68.3 (68.5) future
- Copper tape shield
- TR-XLPE insulation
- Conduit or underground duct
- PVC jacket direct burial application
- FT-1 90°C



Ground Wire

- Meets ASTM specifications
- Soft-drawn bare copper Class B3
- Solid or stranded



Communications and Control Cables

- Fiber optic or copper cable
- Multiconductor or paired
- Multiple shielding options
- For instrumentation, metering and control applications



PV Connectors

PV connectors are used to connect the end of each array of panels to the PV wire that runs back to the combiner box. Note: Not all PV connectors mate together. It is critical that you know the manufacturer of the connector that is on the end of the array of panels.

Helios H4 Connector

Provides reliable interconnection between panels and other system components. It has precision machined contacts with RADSOK® technology for lowest power loss. UV and ozone resistant materials provide for a 25 year life. With a safe NEC 2008 compliant locking system, this is the most advanced solar connector in the industry.

Helios Bulkhead Connector

Used for inverter or combiner box applications, with D-hole mounting and a sealing gasket.



Combiner Boxes

Solar combiner boxes are used to combine PV cables from several solar arrays. The PV cables are fed through fuses to produce a single output that is then fed to the inverter. Combiner boxes are used for both commercial rooftop and solar farm applications.

- 600 V or 1 kV
- Input circuits: 1–48 circuits
- UL 1741 standard
- Enclosure types, NEMA 4X fiberglass or NEMA 3R painted steel
- Fuses: fused or nonfused
- Monitoring: wireless monitoring, wired monitoring, unmonitored
- Integral disconnect: with or without disconnect switch



Fuses

Fuses for combiner boxes can be included with the combiner box or may be purchased separately.

600 V

- Fast-acting fuses
- 8 A, 10 A, 12 A and 15 A (most common)

1,000 V

- PV fuses
- 8 A, 10 A, 12 A and 15 A (most common)



Grounding

Anixter has a wide variety of products available to help you with your grounding requirements.

- Copper ground rods
- Mechanical and compression grounding connectors
- Flexible braid
- Lightning arrestors
- Exothermic grounding



Power Connectors

Copper and aluminum compression connectors are used for terminating medium and large AWG size cables in electrical applications.

- Compression type lugs
- Compression barrel splices
- Mechanical lugs and splices

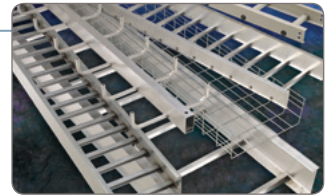


Physical Support Products

Photovoltaic installations (whether rooftop or utility scale) are subject to adverse UV light, wind and corrosive conditions. Anixter offers a full line of physical support products to help protect, route and support solar installations of any type. Our product portfolio includes cable tray, conduit, cable ties and clips, roof blocks, and other innovative routing and mounting solutions.

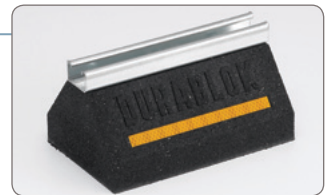
Cable Tray

- Supports and routes cable
- Available in several materials (e.g., aluminum, galvanized steel and stainless steel), fiberglass
- Ladder tray or basket tray



Dura Blok

- Made from 100 percent recycled rubber
- No roof penetration required
- Customizable to support conduit, tray, duct, walkway, HVAC green points



ARISTA Monolithic Solar Mounting System from Cooper B-Line

The ARISTA Monolithic Solar Mounting System is designed with limited components, many of which are preassembled, allowing the customer to quickly install the system. Plus, the system easily adapts to both portrait and landscape mounting and accommodates virtually any type and size of solar PV panels. The code compliant system is supported by Dura Blok rooftop supports to effectively distribute the low dead weight loads across the roof. The system meets OPA domestic content regulations.

Tested and validated by one of the world's foremost wind engineering consultancies, the ARISTA Monolithic system is engineered for optimal performance to individual job site conditions while minimizing impact to structural capacity. Backed by a team of project management, design and engineering professionals, advice and support for ARISTA Monolithic systems is available for each step of the process – from quotation and layout to submittals, permitting and installation.



UV Stabilized Cable Ties

Specifically designed for the solar industry, Anixter offers cable ties that are made of UV stabilized PA66UV material. This provides additional protection against UV radiation for long-term outdoor use.

Cable Ties

UV stabilized cable ties are available in a wide range of styles, tensile strengths and bundle diameters.



Our Supply Chain Solutions

Winning the project is the first challenge; managing the project to an acceptable return is perhaps the biggest challenge. Anixter's READY!™ Deployment Services map the deployment of product to the construction schedule to reduce lead times, on-site storage and risk.

READY!
DEPLOYMENT SERVICES

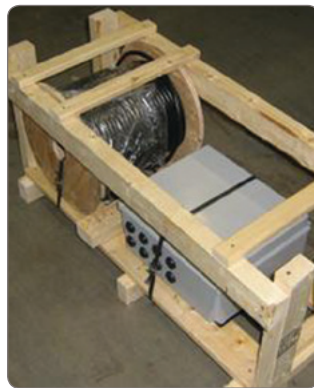
READY!™ Deployment Services by Anixter map our distribution and Supply Chain Solutions to the construction or deployment process of any technology project. We combine sourcing, inventory management, kitting, labeling, packaging and deployment services to simplify and address the material management challenges at the job site(s). READY! Deployment Services by Anixter will help you improve the speed of deployment, lower your total cost of deployment and ensure your product specifications are delivered as planned.

READY!™ Kit

Anixter can kit common products together, making them easier to handle and find on the job site.

- Kits can also reduce the amount of separate packages that need to be opened as well as minimize the amount of waste that needs to be disposed.
- Kits could contain products such as one 12-string combiner box with 12 fuses, 12 female solar connectors, 12 male solar connectors, UV-resistant cable ties and edge clips, grounding connectors and a 1,000-ft. spool of PV cable.

READY!
KIT



PV Wire Harnesses, Jumpers and Pigtails

Installing solar connectors in the field can be timely and expensive. Anixter can supply custom PV wire harnesses, jumpers and pigtails for a plug-and-play installation setup.

- PV harnesses can be used to put multiple strings in parallel, eliminating the need to run a positive and negative from each string back to the combiner box.
- Jumpers can be used to connect the end of an array to a parallel wiring assembly.
- Pigtails are useful in wiring the end panel of an array to the combiner box.



READY!™ To Install

Anixter can cut collector and power cables to your specific lengths. The cables can be cut to your exact length, tagged to your specifications and delivered just-in-time to the job site. Cut-to-length reels reduce scrap, on-site cutting, storage, theft, damage and labor costs. Anixter's PARAPULL reels allow you to make one pull of multiple cables, saving you time and money.

READY!
TO INSTALL



Tagging

In addition to cutting to length, Anixter has the ability to custom tag each reel. To help contractors locate the correct reel to use for a particular circuit, Anixter can add the circuit number or identification to each tag. This can be especially valuable to a contractor working on a large job with cable reels scattered throughout a lay-down area.

Line 1
12AWG 7/C XHHW 2AX-1207
CIRCUIT = GULF15-A
LENGTH = 5000 FT
WORK AREA = STATION D5
RELEASE #001-0005 PO LINE #28

Maximize Productivity, Minimize Disruptions

Anixter can develop a customized supply chain program to help take costs out of your businesses while maximizing efficiency for your solar application needs.



Customer Challenges and Risks

- Time and budget constraints
- Limited on-site storage and security
- Product selection and specification
- Material sourcing, manufacturer and inventory
- Ease of installation
- Labor savings



The Anixter Solution

- Assist in project planning by providing predictable delivery times
- Streamline and coordinate material management
- Provide customized solutions (kitting, packaging, etc.)
- Assist in product specification, selection and sourcing
- Reduce material scrap, excess and obsolete inventory
- Simplify material management and deployment at the job site



Benefits

- Efficient delivery
- Maximized productivity
- Minimized disruptions
- Reduced deployment costs
- Technical assistance
- Decreased environmental impact through Supply Chain Solutions best practices (e.g., LEED)

Our Manufacturer Partners

Anixter partners with best-in-class manufacturers to provide you with the products and technologies you need.

Amphenol®
Industrial

BURNDY®
Experience. Technology. Answers.™

COOPER B-Line

COOPER Bussmann

COOPER Crouse-Hinds

CORNING

DECA CABLES

LAPP CANADA

PANDUIT®

wieland

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Anixter is a leading global supplier of communications and security products, electrical and electronic wire and cable, fasteners and other small components. We help our customers specify solutions and make informed purchasing decisions around technology, applications and relevant standards. Throughout the world, we provide innovative supply chain management solutions to reduce our customers' total cost of production and implementation. A NYSE listed company, Anixter, with its subsidiaries, serves companies in more than 50 countries around the world. Anixter's total revenue approximated \$5.5 billion in 2010.

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