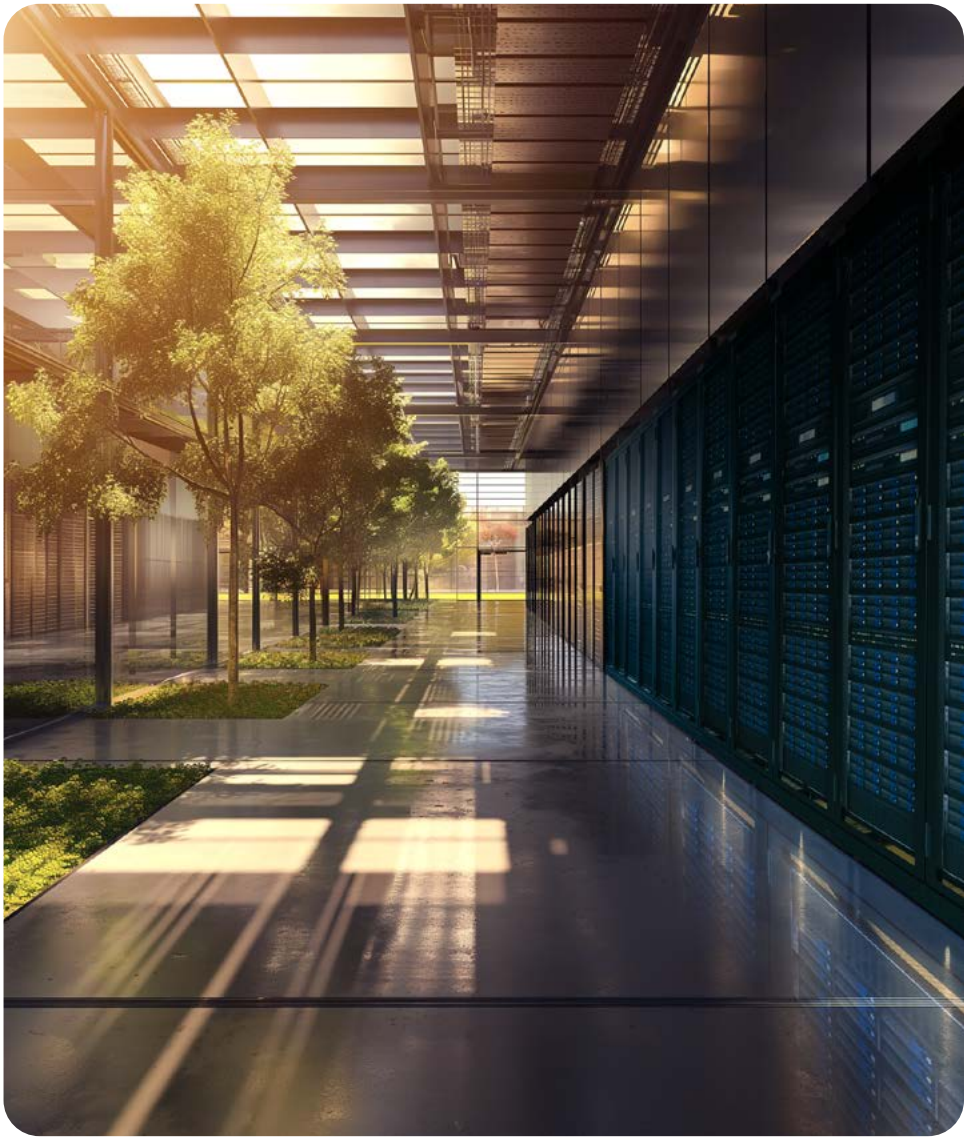
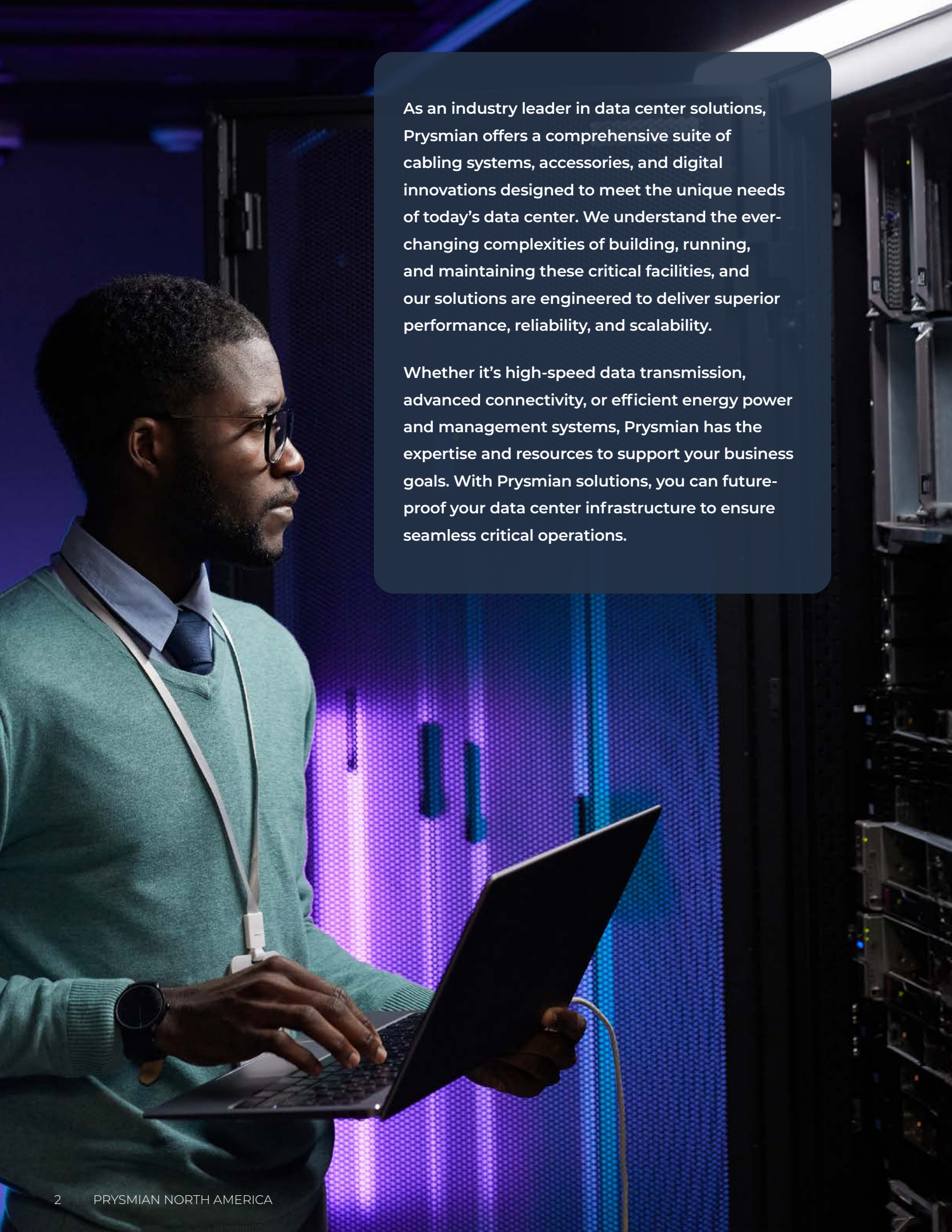
PRYSMIAN NORTH AMERICA

DATA CENTER SOLUTIONS

Driving new energy and intelligence everywhere



prysmian



As an industry leader in data center solutions, Prysmian offers a comprehensive suite of cabling systems, accessories, and digital innovations designed to meet the unique needs of today's data center. We understand the ever-changing complexities of building, running, and maintaining these critical facilities, and our solutions are engineered to deliver superior performance, reliability, and scalability.

Whether it's high-speed data transmission, advanced connectivity, or efficient energy power and management systems, Prysmian has the expertise and resources to support your business goals. With Prysmian solutions, you can future-proof your data center infrastructure to ensure seamless critical operations.

DATA CENTERS

Portals for future growth

Our digital lives require reliable, secure, and scalable technology infrastructure. From lightning-speed home streaming to real-time global communications to AI-driven enterprise, demand for faster data, more power, and the latest innovations is growing exponentially. And these demands require entirely new levels of performance.

Across the world today, we rely on data centers to consistently deliver on those demands. These behind-the-scenes powerhouses store, communicate, and transport the information we produce every single second. As we create more data, the more vital these data centers become – especially as we look towards the future, where next-gen applications will generate enormous volumes of data per millisecond from billions of users.

But what happens if access isn't reliable or fast enough to keep up with demand?

How do we deliver more energy to continually drive the data volumes required for the next evolution of supercomputing?

POTENTIAL ROADBLOCKS

DOWNTIME THREATS

Downtime is not just a major concern for data center operators, but for business leaders as well. Low-quality, unreliable cables and equipment along with lengthy installation times are two main downtime causes today.

SCALING CHALLENGES

Scalability is vital to accommodate next-gen AI innovations. However, providing sufficient infrastructure to facilitate increased IT demands can be a struggle.

SPACE RESTRICTIONS

Operators must accommodate increasing volumes of fiber and cabling running in and out of their facilities, which can be restricted by legacy infrastructures such as fiber raceways, ducts, and manholes.

Today's data center capabilities have come a long way, primarily due to the drastic hardware transformations required to meet AI demands, explosive growth in speeds and data, and the need for more reliable, super low-latency networks. Data center owners and operators continue to face new challenges as we enter a new era of AI-driven computing:

Transitioning to ever-higher speeds

Data centers must shift towards 800 G port speeds and beyond, which requires higher density optical transceivers, more compact connectors and smaller, denser cables.

Increasing optical fiber deployment

Optical fibers are key to supporting this growth in AI applications. Bend-insensitive single mode and multimode fibers are set to become the standard for maximum bandwidth and speed.

Maintaining safe, secure operations

Data center cabling and equipment must meet strict safety standards, performance requirements, and industry best practices for a secure and robust infrastructure. These can vary by state and even municipality, which can impede national or international scalability.

Focusing on sustainability

Facing growing environmental concerns and rising energy demands, the data center industry must decrease resource consumption as well as its overall carbon footprint. Using renewable energy, implementing advanced cooling, and optimizing server efficiency can help facilities achieve their sustainability goals.

Prysmian, the world's largest energy and data solutions provider, is ready to support data center teams meet the demands of new applications and exponential growth – from utilities delivering power all the way down to the individual optical fibers facilitating millions of data connections every second.

We're focused on developing state-of-the-art and sustainable data center solutions to alleviate ever-increasing bandwidth concerns and help you scale to face any challenges that arise.

EXPLORE OUR COMPREHENSIVE DATA CENTER SOLUTIONS >

HIGH-VOLTAGE ENERGY SYSTEMS

IT ALL STARTS WITH ENERGY

High-quality, reliable energy is critical to ensure data center business reliability. This starts with high-voltage utility power cables transmitting via air and ground (including all conceivable network components) to connect the data center campus and individual buildings to the main distribution network.

Prysmian offers a full range of high-voltage power cables with several insulation sheath types and conductor sections available, up to 380 kV for power distribution and connection to the main grid. Our cables come with all joints and terminations to complete the systems for a seamless, turnkey solution.

POWER UP YOUR CAMPUS FASTER THAN EVER

Not only is Prysmian the world's largest HV/EHV cable manufacturer, we're also one of the largest cable installation contractors in North America, capable of managing multiple large-scale projects across the continent. Our dedicated teams specialize in HV/EHV cable installation, delivering unparalleled expertise to complete the most challenging activities.

Using a single source for both equipment and services eliminates the need for external coordination and prevents planning issues from impacting project schedules, ensuring your data center is up and ready with fewer delays.

MEDIUM VOLTAGE POWER CABLING

CONNECT MORE POWER ACROSS THE CAMPUS

Prysmian's medium-voltage cable and building wires are pivotal to managing and distributing power and signals throughout the data center infrastructure. Our wide array of MV cable can help you handle the most demanding applications where quality and reliability are top priority. With several insulation sheath options available, these cables deliver up to 20 kV for power distribution in and around your facility.

SCALABLE POWER TO MEET FUTURE GROWTH

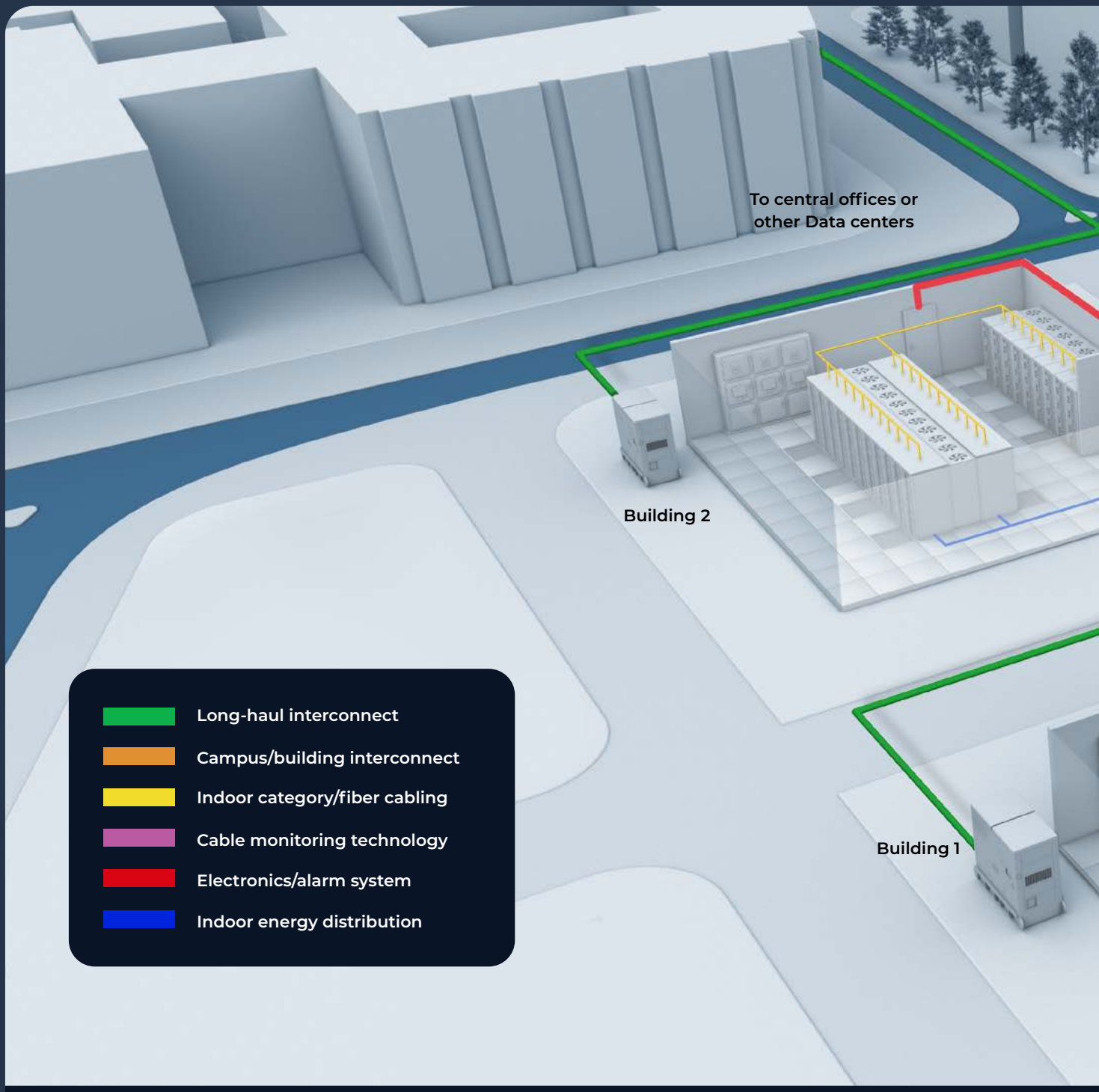
Data center growth requires flexibility and scalability, and Prysmian's MV cables are purposefully designed for easy, efficient installation. Even in the most demanding environments, you can rely on life expectations of at least 40 years with our products.

With our world-class, vertically integrated manufacturing and engineering, Prysmian is committed to creating the most comprehensive line of industrial power cables so you get the right solution for your facility – no matter the challenge.

High-speed jackets reduce friction by up to 45% for longer, faster, and more efficient pulls

Triple-layer extrusion combines strand shield, insulation, and insulation shield to form a virtually perfect cable core

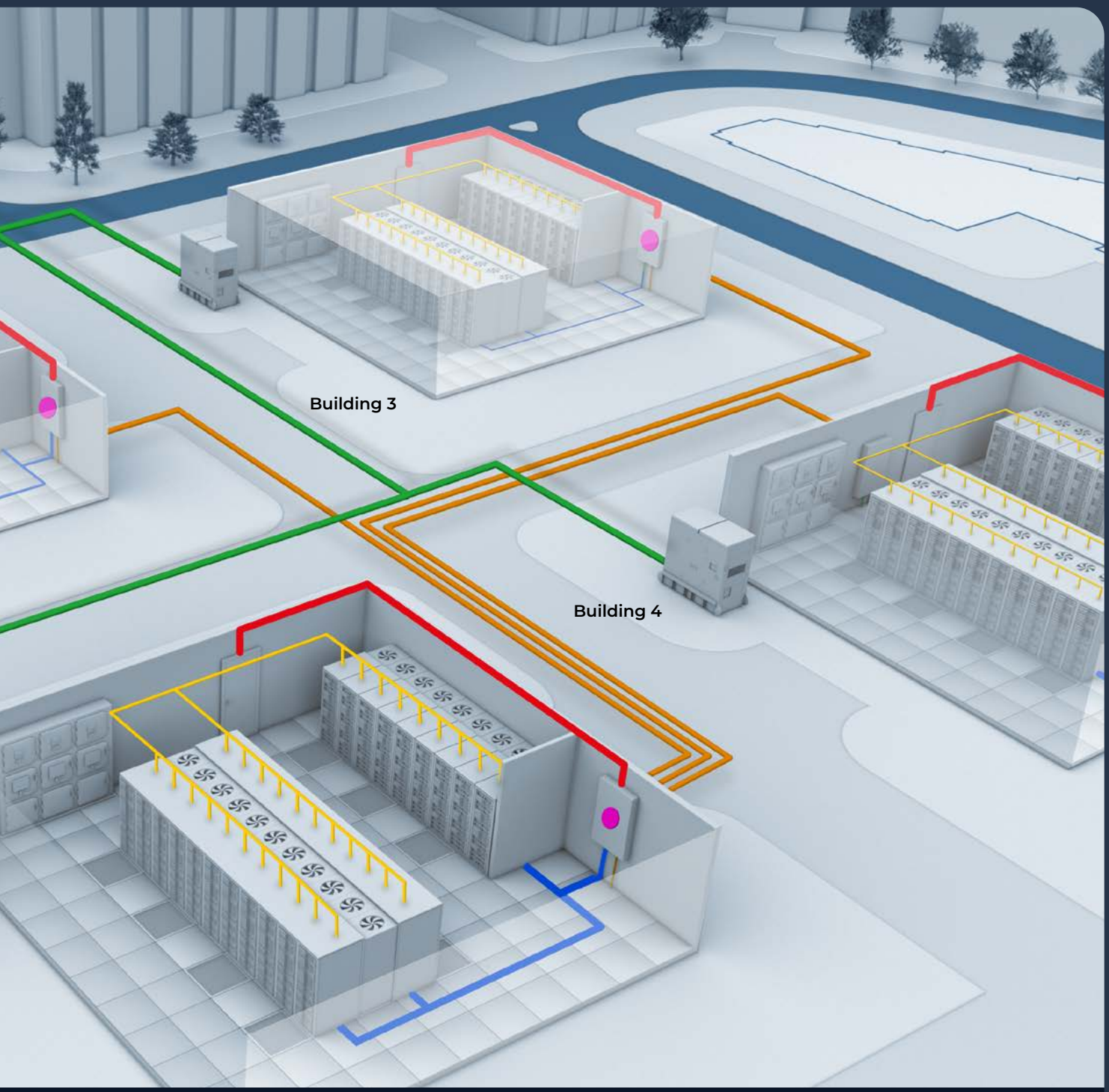
Data center campus



HV/MV Energy
Connection

MassLink cables
with FlexRibbon™

Pre-Connectorized
Fiber & Category



PRY-CAM Tracking Solution

Fire Alarm, Security, and Electronics

Stabiloy™ Aluminum Energy Distribution

LOW-VOLTAGE ALUMINUM BUILDING WIRE

LIGHTER, FASTER, STRONGER FOR FUTURE-PROOF INSTALLATION

Aluminum building wire is the fastest-growing wiring solution for commercial and industrial construction projects, and streamlined cable installation gets your facility online in less time.

Prysmian's flexible, lightweight aluminum alloy feeder conductors weigh half as much as copper conductors of equal ampacity and can be installed without added pulling lubricant, saving time and reducing labor, waste, and material costs.

WE START WITH SUSTAINABILITY

Prysmian's aluminum alloy power distribution feeder cables for commercial, institutional and industrial construction applications are proven, cost-effective, and installed in thousands of buildings across North America. They're 100% tested for quality—with guaranteed reliability, durability, and safety you can trust.

- Factory-tested, engineered All-in-one assembly combining conduit and wiring
- One-step installation dramatically reduces installation time and costs
- Strong, lightweight, aluminum alloy armor protects conductors from damage
- Meets or exceeds requirements of NEC® and UL® Standards, also available for CSA

POWER & CABLE ACCESSORIES

EVERYTHING YOU NEED...

The right accessories can play a vital role in keeping your data center up and running to meet the most detailed system specifications and requirements. Prysmian's range of accessories includes splices, indoor and outdoor terminations, connectors, glands, cleats and fixing, tooling, and much more.

...NOTHING YOU DON'T

Prysmian's dedicated engineering support team is ready to help you specify, test, and install the right accessories for your needs without any extraneous parts or products that could lead to future downtime. Our Training Center of Excellence offers in-depth specialized training programs to ensure our customers and partners maximize their investments.

- Cold shrink EPDM splices and Coldfit™ terminations purposefully designed for fast, easy, and reliable installation
- No special tools, torches, complicated assembly or heat required
- Rated for operation continuously at 105° C
- All splices and terminations conform to IEEE 404 specifications

BACKED BY THE INDUSTRY'S MOST COMPREHENSIVE WARRANTY

When you use Prysmian cables and accessories, your system is guaranteed for 10 years—that's a full decade of optimal performance and compatibility. And with one manufacturer warrant for up to seven different products, everything from installation to potential replacement is faster and more streamlined.

FIRE ALARM & SECURITY

HOW WILL YOUR SYSTEM HOLD UP?

Fire alarm and security systems have expanded from relatively simple electromechanical devices to advanced frameworks using advanced microprocessor and chip technologies. However, these systems are only as good as their weakest component, whether that component is a processor or interconnecting wire and cable.

PROTECT WHAT MATTERS MOST

Prysmian's solutions have been proven in fire system security for decades, all fabricated with solid, bare copper conductors and premium-grade PVC insulations and jackets. Offered with and without shields to protect critical circuits from noise, these cables provide the latest technology to protect the most important asset in any data center—your people.

A PRYSMIAN SOLUTION FOR ANY APPLICATION:

- Access Control
- Video Surveillance / CCTV
- Component Video
- Lighting Control & Touch Panel Systems
- Fire Alarm & Life Safety

TELECOM OUTSIDE PLANT INTERCONNECT

FLEXIBLE HIGH-BANDWIDTH CONNECTIVITY FOR BROAD APPLICATIONS

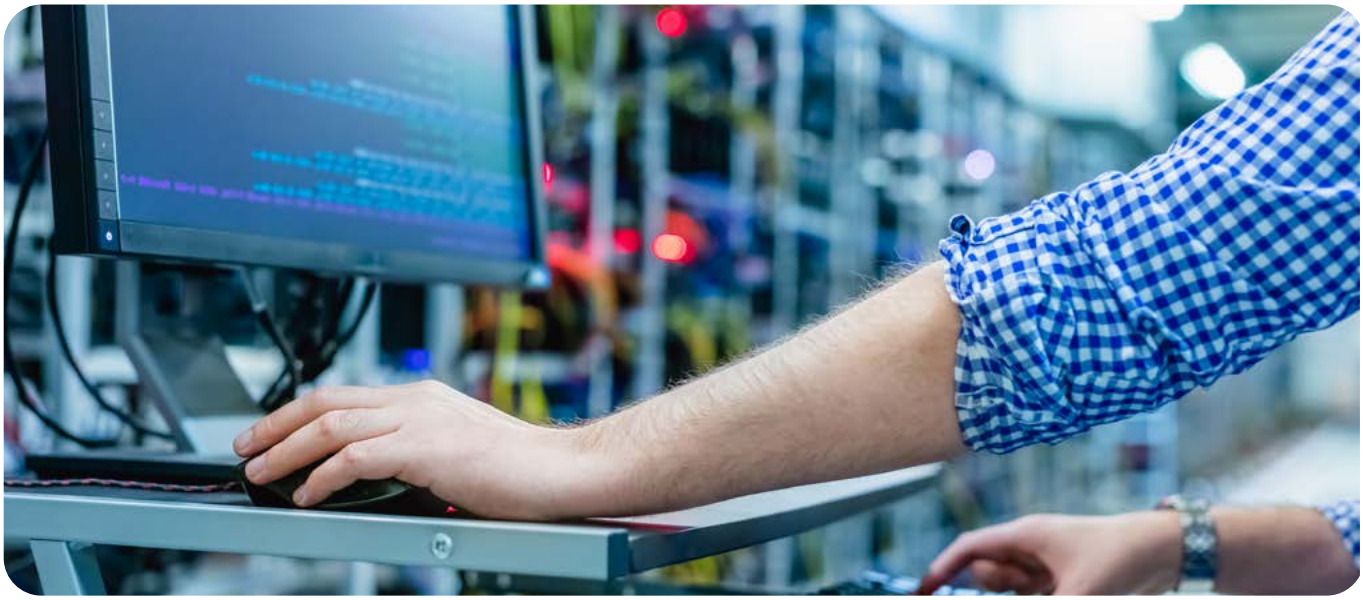
From optical and copper cables and optical fiber to connectivity components and accessories, Prysmian helps connect data centers to the community more efficiently than ever. Whether you're concerned with high bandwidth, fiber density, rapid installation or reduced deployment costs, we can help you build a network with outstanding future-proof connectivity.

With Prysmian as your single source for fiber and copper, you get a dynamic solutions partner for more convenience, consistent quality and total support.

ADVANCED TECHNOLOGY ANTICIPATES FUTURE PERFORMANCE NEEDS

Prysmian Indoor-Outdoor Optical Cables meet stringent environmental requirements for outside plant cable and the flammability requirements of premise applications. Our Indoor optical cables are optimized for any premises application and built to withstand continuous handling and difficult routing.

Prysmian MassLink™ with FlexRibbon™ Technology provides an ultracompact indoor/outdoor cable design that contains 864 to 1728 bend-insensitive fibers. FlexRibbon technology rolls and packs the ribbons together in small tubes that still provide the advantages of mass fusion splicing.



PRY-CAM TRACKING TECHNOLOGY

MEASURE TO MANAGE PERFORMANCE

Reliable power is non-negotiable for data centers; any power malfunction or blackout can be highly disruptive and pose serious consequences. It's more important than ever to track key metrics as well as find and diagnose defects to ensure equipment reliability, safety, and continuity.

Prysmian's breakthrough PRY-CAM technology gathers and tracks a vast array of facility and equipment data—from conditions of use to malfunction to overheating and more—remotely and in real time. This powerful toolset enhances asset longevity and significantly reduces cost and risk.

MIRROR REAL-WORLD CONDITIONS FOR COMMISSIONING TESTING

PRY-CAM technology is purpose-built to support offline partial discharge testing for commissioning needs. By creating conditions that closely resemble actual operating conditions, you'll get a more accurate assessment of insulation integrity and identify potential electrical system faults–two crucial areas to ensure the reliability and safety of data center infrastructure.

This testing methodology helps mitigate risk, prevent downtime, and maintain the high operational standards expected for these critical facilities.

MILLIONS OF METRICS FOR A HOLISTIC VIEW

PRY-CAM allows you to effectively monitor any electrical equipment including cables, joints, terminations, switchgear, transformers, electrical machines, and beyond.

Each PRY-CAM component easily adapts to various SCADA protocols and can be configured to meet specific requirements: from monitoring parameters for maintenance and asset management, to graphic interfaces on user-friendly dashboards.

Track more than three million measurements on a private, secure cloud-based system for a comprehensive view of the data center at every level.

DISTRIBUTED TEMPERATURE SENSING

Maximize circuit utilization by tracking hot spots and environmental changes to automatically trigger alarms and cooling systems.

DISTRIBUTED ACOUSTIC SENSING

Save time by detecting third-party intrusions and locating any cable faults to reinforce substation security and help resolve unexpected events quickly and efficiently.

16F FIBER AND VSFF

ACHIEVING 800 GB / 1.6 TB INSIDE THE DATA CENTER

Scale is a constant demand for data centers, but what about scaling *down* to increase density requirements as network demands grow exponentially? Adopting very small form factor (VSFF) connectors for fiber panels is key to support speeds of 400 Gbps, 800 Gbps and even 1.6 Tb inside the data center.

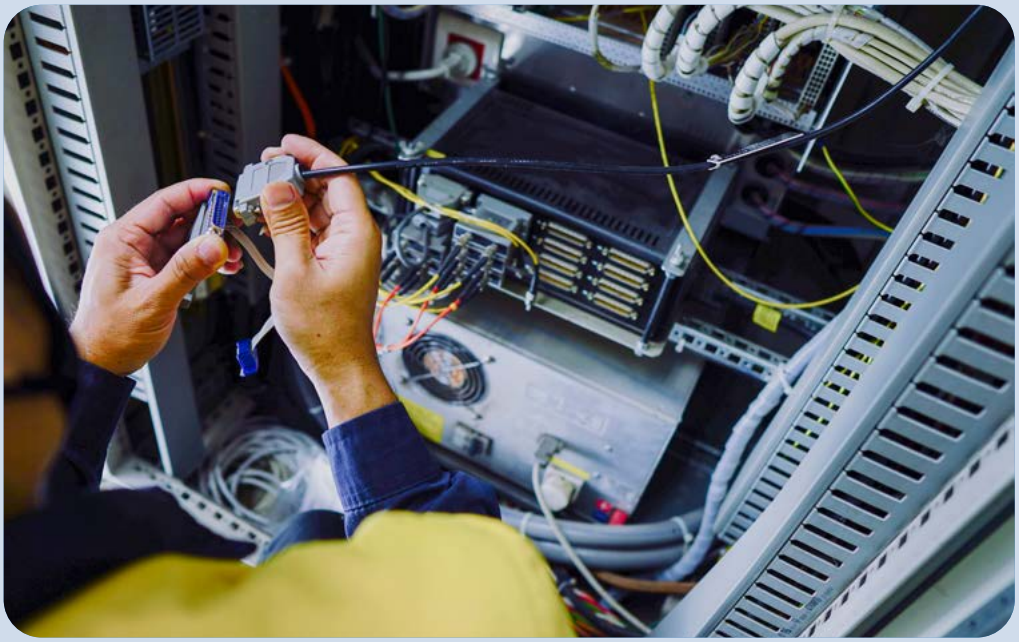
VSFF connectors are not new to the market, but advances in smaller connectors have enabled more widespread use in physical facilities compared to legacy multi-fiber pushon (MPO) connectors.

SIZING DOWN TO SCALE UP

With the ongoing rise of Artificial Intelligence and the race to achieve 800 Gb / 1.6 Tb across all data center components, Prysmian is creating new pathways with 16f solutions to meet and exceed these demands.

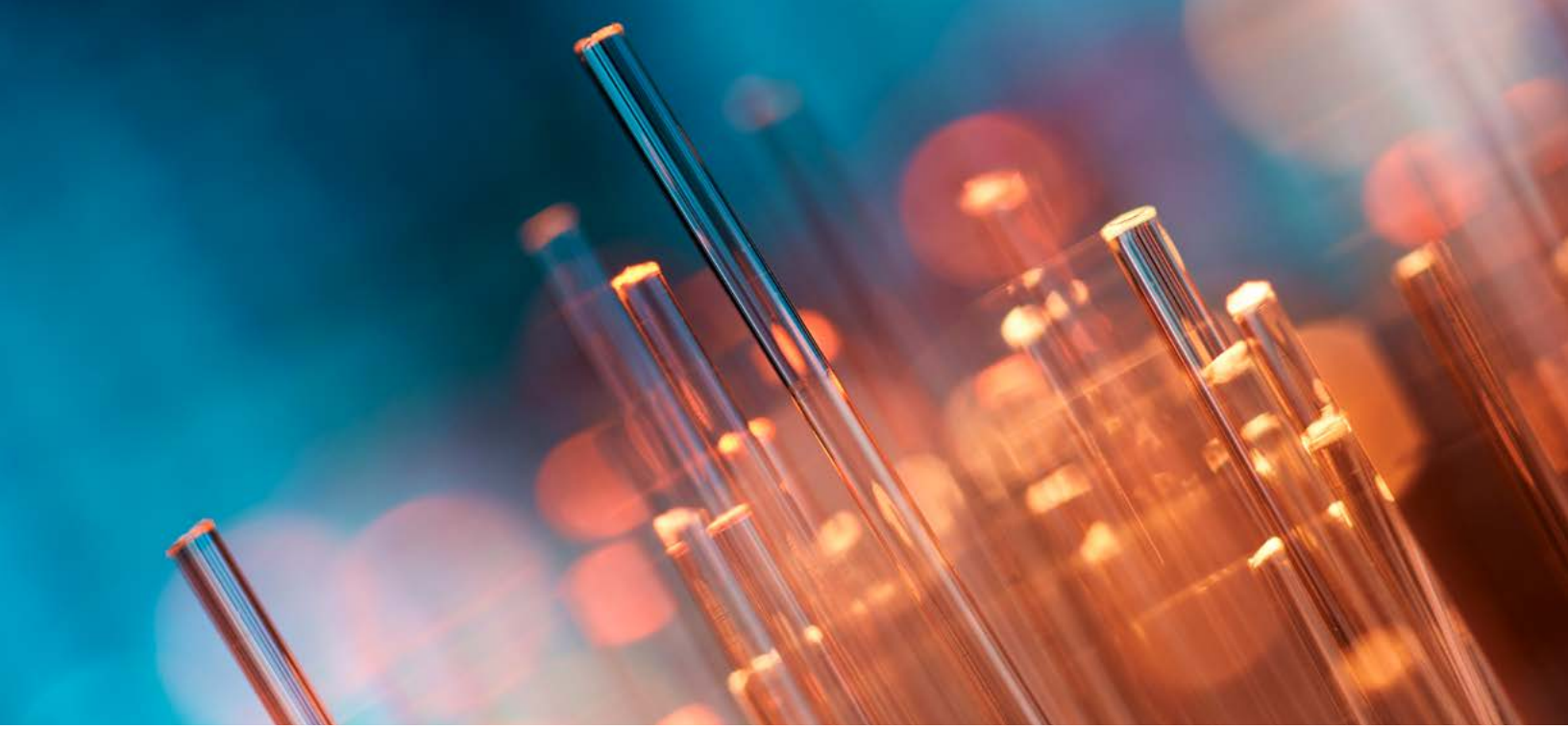
We've developed 16f Ribbon products that align with IEEE-approved colors for the additional four fibers, eliminating the need for different, more time-consuming un-aligned fiber counts.

Our award-winning BendBright™ XS fiber offers excellent low macro-bending sensitivity and low water peak level, allowing for unlimited use of the complete telecom wavelength window (1260nm to 1650nm) across a variety of assembly applications.



BendBright™ XS 200 µm fully complies with or exceeds the ITU-T Recommendations

- G.657.A1
- G.657.A2
- G.657.B2 (2009)
- G.652.D (2009)



OPTICAL FIBER

THE CORE OF NETWORK CONNECTIVITY

Fiber optic cables and connections the heart of network reliability—and as demand for advanced technologies increases, these networks must be more efficient and robust to remain stable across the deployment lifetime, no matter the environmental conditions. Microbending loss can be a particular issue in high-density installations, impacting latency and potential lag time.

A 432-count SiroccoHD cable is about the same diameter of a pencil—fitting into a 10mm ID microduct

- Maximize duct utilization
- Defer capex to match revenue streams
- Maintain flexibility for future growth
- Reduce installation & upgrade costs

DEPENDABLE LONG-TERM DENSITY

Prysmian's award-winning Sirocco™ optical fiber cable features extreme fiber density in an extra-compact form factor, so they're easy to deploy and can help maximize limited duct space. And even under extreme wet or dry installation conditions, Sirocco cables have been proven to last at least 50 years without any compromise to performance during that lifetime.

Sirocco™ microduct cables use Prysmian BendBright™ 200µm bend-insensitive fiber for more stable connectivity and increased resilience. These are available in a wide range of fiber counts, densities and duct sizes to build a complete, customized solution for your facility needs now and into the future.

CREATING THE PATH TO OUR CONNECTED FUTURE

At Prysmian, we're dedicated to driving new energy and intelligence everywhere. And we understand how important effective, efficient and sustainable power and information supply are to help communities across the world thrive now and into the future.

As we enter into a new AI-driven era, it's essential to harness the power of human ingenuity to define and develop these uncharted global pathways.

We're leading the future of energy transition, digital transformation, and global electrification. Through our knowledge, innovation, and reach, Prysmian is connecting people and businesses with the advanced technology they need, no matter where or when they need it.

SUSTAIN TO LEAD

We know how much sustainability matters to data center leadership as well as customers and consumers–it's a core component of our own business, too. As a result, Prysmian data center solutions prioritize sustainability by integrating energy-efficient designs, renewable energy sources, and innovative technologies for holistic approach at every level.

We're dedicated to minimizing the environmental impact of your project while maximizing operational performance and reliability. Our in-depth knowledge and bespoke solutions can help you navigate complex regulatory landscapes for more efficient project deployment.

Pushing the boundaries of electrification and digitalization, our solutions power the circular economy while exceeding the ever-evolving demands of today's data and energy landscape. Connect with one of our experts to learn more about our dedication to sustainability for our business, our customers, and the world.

Together, we can navigate the way forward.

prysmian

the planet's pathways

na.prysmian.com

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