

Smart Control Panel Solutions



PANDUIT[®]

building a smarter,
unified business foundation

Connect. Manage. Automate.



Panduit Control Panel Solutions Deliver Reliable System Performance

Unified Physical Infrastructure (UPI): a Guiding Vision

A unified approach to physical and logical systems architecture is imperative for solutions to fully address the need for availability, agility, integration, and security.

Panduit has developed the industry's most comprehensive and holistic approach to a Unified Physical Infrastructure and can help enterprises align, converge, and optimize critical systems – communication, computing, control, power, and security – to build a smarter, unified business foundation.

Mitigate Risk – Efficient physical infrastructure management enables seamless integration to reduce risks that can occur throughout core systems.

Lower Cost – Panduit physical infrastructure solutions drive financial advantages to reduce energy and occupancy costs, and help secure competitive advantage.

Increase Agility – A high level of integration within the physical infrastructure enables flexibility and improved business agility.

Enhance Sustainability – UPI-based solution offerings enable organizations to meet sustainability goals by driving resource and energy efficiencies across the physical infrastructure.

Panel shops, engineering firms, machine builders, and system integrators are pressured to speed production and control costs, while maintaining quality, system availability, and reliability. Control panel solutions from Panduit offer the broadest range of options for the most demanding requirements and applications. Through innovative product systems and services we help you save valuable panel space, mitigate disruptions due to electrical/mechanical noise, enable and future proof your network, and improve reliability.

Panduit Space Optimization Solutions Increase Panel Savings

In some applications, a smaller footprint brings significant costs savings opportunities, such as reduced enclosure and panel costs; in others, it provides the flexibility necessary for future additions or changes. In either case, Panduit's Space Optimization Solution offers robust design practices and product selections that can meet these needs.

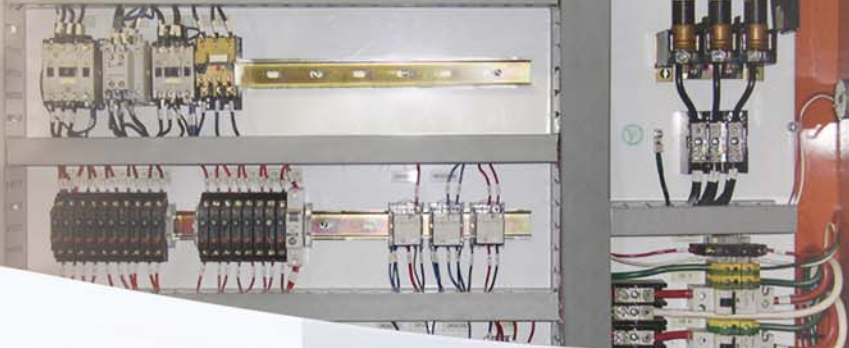
Traditional panel layouts have valuable unused space that can be better utilized with new wire management practices and innovative products. Some opportunities include making use of unused corners, maximizing the use of the enclosure depth, and using physical barriers to reduce the space required for electromagnetic interference (EMI). Innovative new products such as PanelMax™ Corner, DIN Rail, and Shielded Wiring Duct address these concerns.

Future Proof Your Network – A recent study from ARC Advisory Group indicates that 85% of all new industrial network installations are Ethernet based. Panduit has the ability to help you connect, manage, and protect the network in your control panel and throughout the plant. As network components are deployed further into the industrial space, the need for diagnostic test points and future expansion is essential. The implementation of network patching practices address these needs – patch cords for connectivity, adapters to manage connectivity, and slack management products to plan for future expansion.

Unified Physical Infrastructure



communication computing control power security



Panduit Solutions Help to Mitigate Noise Effectively in Control Panel Environments

Managing equipment reliability while maintaining manufacturing productivity is critical within factory automation systems. As communication networks expand on the factory floor, adequate design and deployment objectives need to be achieved. The impact of electromagnetic interference (EMI) “noise” is often overlooked during initial installation stages as well as during future modifications. There are several sources of noise, such as: drives (VFD, servo), switching power supplies, and inductive load switching components. Panduit provides solutions to reduce the effects of EMI noise in a system that include:

Bonding and Grounding of Electrical Systems – Create low impedance noise return path for all components within the space with a universal ground bar that incorporates many mounting options and termination methods (bare wires, ferrules and ring terminals) making it ideal for virtually any control panel or equipment enclosure application.

Segregation and Shielding of Electrical and Communication Cabling – Create physical barriers by placing high EMI emitting components on one side of the panel, and using shielding products such as PanelMax™ Shielded Duct, Noise Shield, and Shielded Patch Cords.

Avoidance through Robust Design Practices – Install separate pathways to route electrical and communications systems; consider copper-based cabling and connectivity as an alternative to UTP and fiber-based cabling and connectivity for uplinks leading from the control panel.

World Class Quality and Reliability

Panduit has a history of developing innovative products that deliver high quality and lowest installed cost. Beyond product advantages, Panduit customers also benefit from a network of outstanding distributors and world-class customer service. Only Panduit delivers the proven choice for panel builders:

- Most comprehensive range of product sizes, styles, and materials
- Innovative features, lower installed cost and improved functionality
- Reliable, easy-to-use hand tools aid productivity
- Superior technical support and customer service
- Full standards compliance

Application Standards



RoHS



Innovative Products for Reliable Control Panel Performance

Everything You Need To Route, Bundle, Identify, Connect, Ground, or Protect.

1 Wiring Duct



2 Cable Ties



3 Mounts



4 Identification System



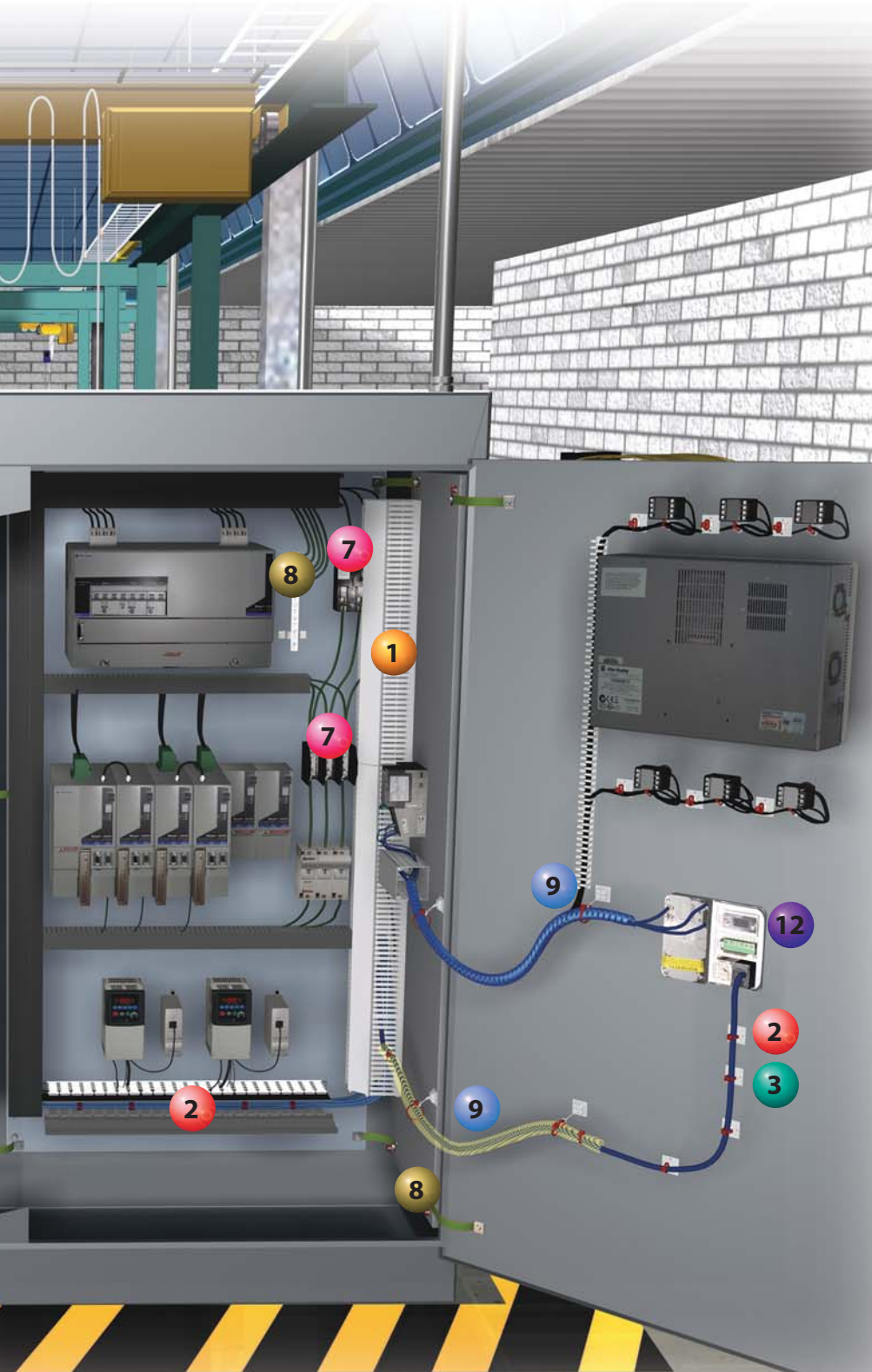
5 Terminals and Ferrules



6 DIN Rail Mount Patching



Your Complete Control Panel Solution



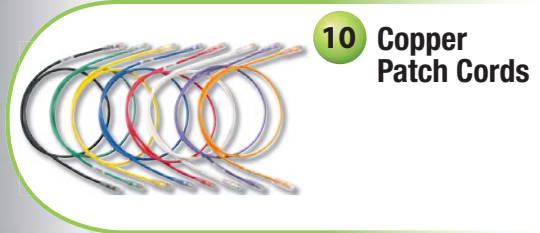
7 Power Connectors



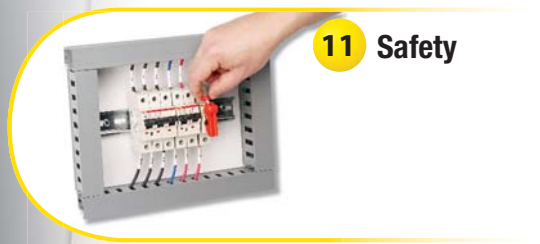
8 Grounding Connectors



9 Abrasion Protection



10 Copper Patch Cords

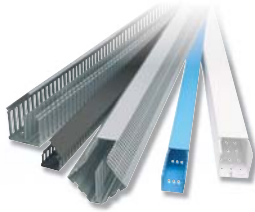


11 Safety



12 Data Access Port

Panduct® Wiring Duct Solutions



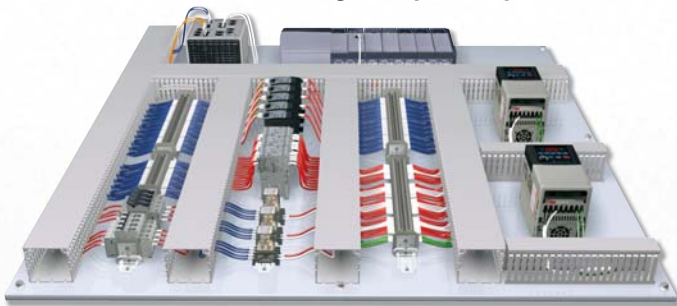
Panduit Panduct® Wiring Duct is the premier wire management solution for routing, protecting, and concealing wiring in control panels. A wide variety of sizes, colors and materials are available to meet the wire capacity needs and space constraints of the smallest wall mounted panels to the largest integrated turnkey systems. All materials are specially formulated to exceed UL and NFPA industry standards for flammability. Halogen-Free and Low-Smoke Halogen-Free materials provide the necessary function for special environment applications.

Space Optimization

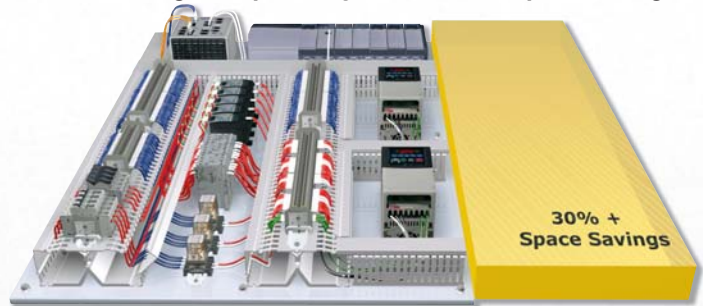
Panduct® PanelMax™ DIN Rail Wiring Duct

PanelMax™ DIN Rail Wiring Duct is an innovative wire management solution that maximizes space utilization within industrial enclosures for flexibility in panel layout, reduced material, and installation costs. The unique design raises components from the panel surface for easier access and faster terminations. DIN rail wiring duct is compatible with common DIN rail and DIN mount components to satisfy a wide range of applications.

Conventional wiring duct panel layout:



DIN rail wiring duct panel layout with 30% space savings:



DRD



DRDWR

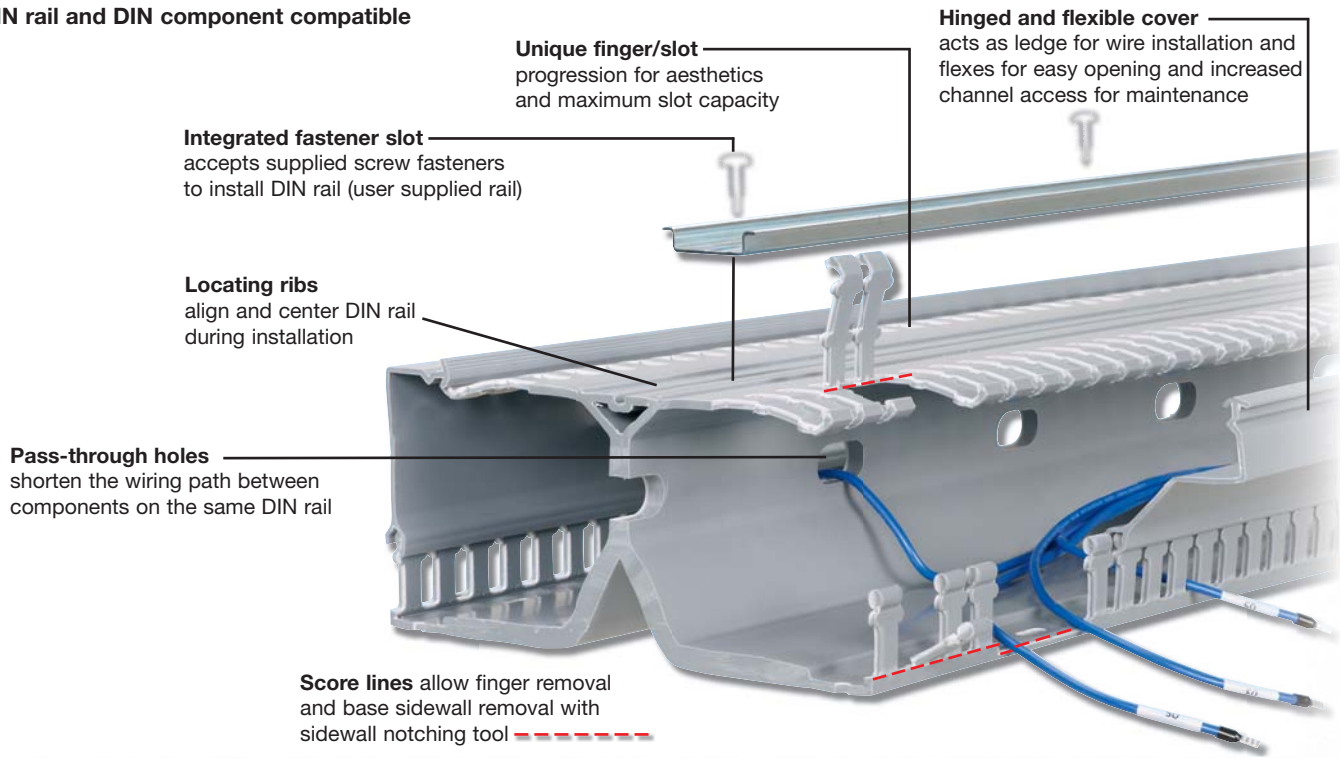


DRDCS

Part Number	Description
DRD22LG6	2" height PanelMax™ DIN Rail Wiring Duct with dual wiring channels. Base, covers, and DIN rail fasteners included. Length 6'.
DRD33LG6	3" height PanelMax™ DIN Rail Wiring Duct with dual wiring channels. Base, covers, and DIN rail fasteners included. Length 6'.
DRD44LG6	4" height PanelMax™ DIN Rail Wiring Duct with dual wiring channels. Base, covers, and DIN rail fasteners included. Length 6'.
DRDC2LG6	2" Replacement Cover for PanelMax™ Rail Duct. Length 6'.
DRDC3LG6	3" Replacement Cover for PanelMax™ Rail Duct. Length 6'.
DRDC4LG6	4" Replacement Cover for PanelMax™ Rail Duct. Length 6'.
DRDSF-C	Replacement DIN rail fasteners for PanelMax™ DIN Rail Wiring Duct.
DRDWR2-X	2" wire retainer for PanelMax™ DIN Rail Wiring Duct, Black. 10 per package.
DRDWR3-X	3" wire retainer for PanelMax™ DIN Rail Wiring Duct, Black. 10 per package.
DRDWR4-X	4" wire retainer for PanelMax™ DIN Rail Wiring Duct, Black. 10 per package.
DRDCS2-X	2" corner strip for PanelMax™ DIN Rail Wiring Duct. 10 per package.
DRDCS3-X	3" corner strip for PanelMax™ DIN Rail Wiring Duct. 10 per package.
DRDCS4-X	4" corner strip for PanelMax™ DIN Rail Wiring Duct. 10 per package.

Product is sold base and cover together in 6 ft, lengths. Part number shown in LG (Light Gray); also available in WH (White).

DIN rail and DIN component compatible



Panduct® PanelMax™ Corner Wiring Duct

Panduct® PanelMax™ Corner Wiring Duct is an innovative one-piece wire management product that makes more efficient use of space inside enclosures, speeds installation, and reduces control panel assembly costs. PanelMax™ Corner Wiring Duct is used in the vertical corners of medium to large electrical control panels (with both side and back panels) to route, conceal, and protect electrical wiring.



CWD2LG6
CWD3LG6
CWD4LG6

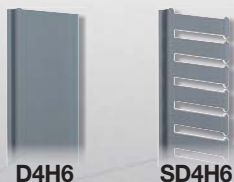
C2LG6

Part Number	Part Description	W x H In.	W x H (mm)	Cover Part Number
CWD2LG6	One-piece corner wiring duct for use with 2" height wiring duct.	3.35 x 2.57	85.0 x 65.3	C2LG6
CWD3LG6	One-piece corner wiring duct for use with 3" height wiring duct.	4.40 x 3.57	111.8 x 90.7	C2LG6
CWD4LG6	One-piece corner wiring duct for use with 4" height wiring duct.	5.33 x 4.58	135.3 x 115.7	C2LG6

Part number shown in LG (Light Gray); also available in WH (White).



CDCLP3
CDCLP4



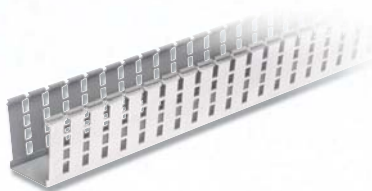
D4H6
SD4H6

Part Number	Part Description	Screw or Fastener Required
CDCLP3	Quick mounting clip for installing CWD3 corner wiring duct.	#10 – 32 x 1/2" (user supplied)
CDCLP4	Quick mounting clip for installing CWD4 corner wiring duct.	#10 – 32 x 1/2" (user supplied)
D4H6	4" height solid divider wall for use with CWD2, CWD3, or CWD4 corner wiring duct.	Installs directly to PanelMax™ Corner Wiring Duct base
SD4H6	4" height slotted divider wall for use with CWD2, CWD3, or CWD4 corner wiring duct.	Installs directly to PanelMax™ Corner Wiring Duct base

Reduce EMI Noise/Signal Interference

Panduit® PanelMax™ Shielded Wiring Duct and Noise Shield

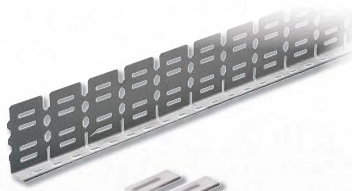
The Panduit offering includes a new PanelMax™ Shielded Wiring Duct and PanelMax™ Noise Shield barrier to route, separate and shield sensitive wiring from noise emission, allowing pathways to be placed in closer proximity. Panduit's noise shielding solution is designed to reduce the effects of EMI/RFI (electromagnetic interference, radio frequency interference) and provide space optimization within industrial control panels. The shielding provides up to 20dB reduction in noise, or 90% noise voltage reduction (NVR), which is equivalent to 6 inches of air spacing, generating valuable panel space savings of 40% or more.



PanelMax™ Shielded Wiring Duct

Part Number	Description
G2X2LG6EMI	2" x 2" PanelMax™ Shielded Wiring Duct; 6' length. Foil metal finish includes anti-oxidizing paste. Cover sold separately.
G2X3LG6EMI	2" x 3" PanelMax™ Shielded Wiring Duct; 6' length. Foil metal finish includes anti-oxidizing paste. Cover sold separately.
G2X4LG6EMI	2" x 4" PanelMax™ Shielded Wiring Duct; 6' length. Foil metal finish includes anti-oxidizing paste. Cover sold separately.

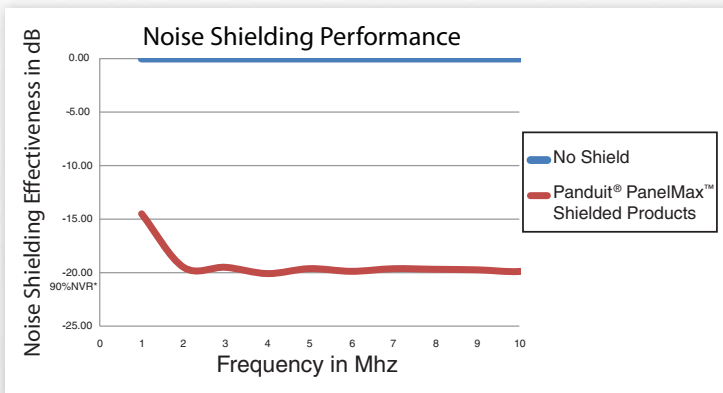
Use C2LG6 or C2WH6 cover with shielded wiring duct. Standard package quantity in feet.



PanelMax™ Noise Shield

Part Number	Description
SD2EMI	EMI noise shield kit for 2" height Panduit wiring duct; two 3' sections, bonding clips, and anti-oxidizing paste.
SD3EMI	EMI noise shield kit for 3" height Panduit wiring duct; two 3' sections, bonding clips, and anti-oxidizing paste.
SD4EMI	EMI noise shield kit for 4" height Panduit wiring duct; two 3' sections, bonding clips, and anti-oxidizing paste.
SDCLIP	Noise shield replacement bonding clips – 2 clips.

Performance Characteristics



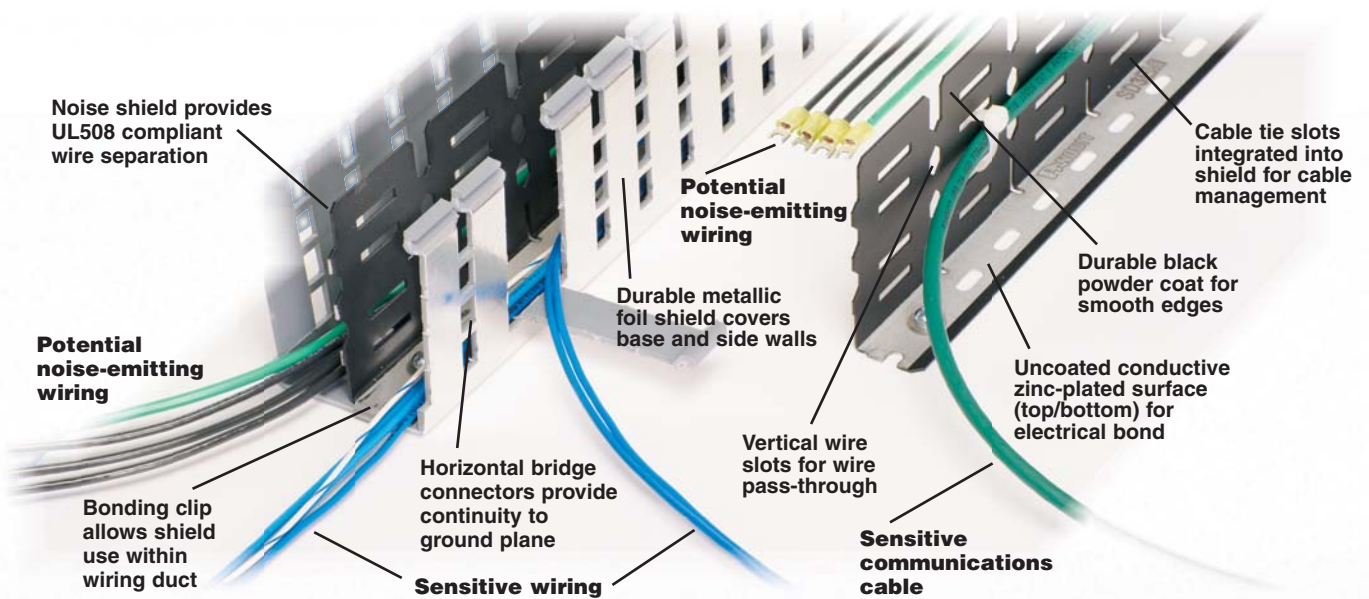
Relative noise reduction in decibels over frequency range of Panduit® PanelMax™ Shielded Wiring Duct and Noise Shield

PanelMax™ Shielded Wiring Duct and Noise Shield deliver approximately 20dB of noise reduction across common industrial noise frequencies at 30mm wire separation with an approximate 1-meter coupling length.

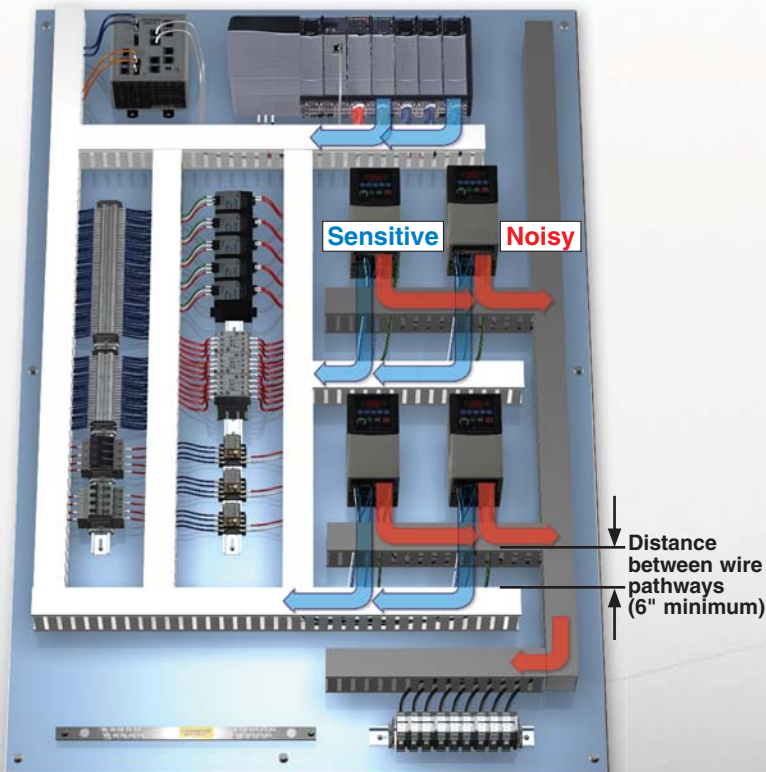
*NVR (Noise Voltage Reduction percentage).

Optimized Layout with PanelMax™ Offering

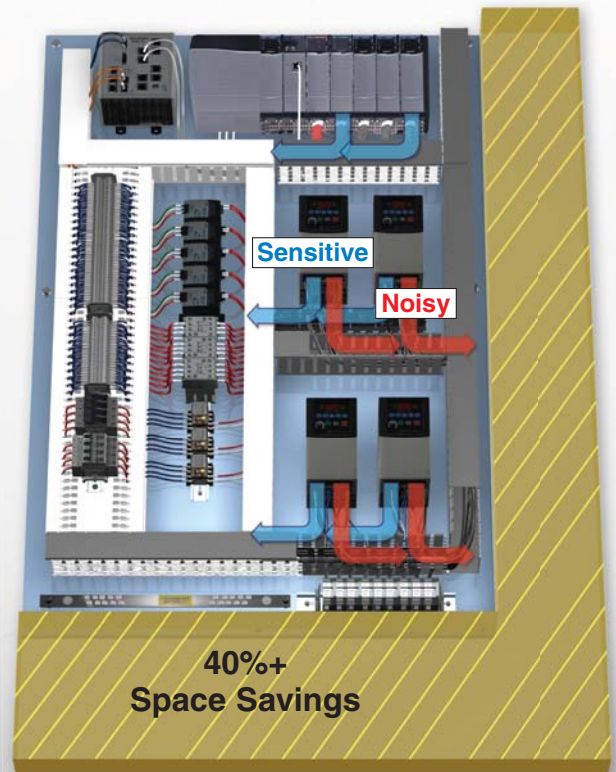
An optimized panel layout uses PanelMax™ Shielded Wiring Duct and Noise Shield to provide noise mitigation with reduced distance spacing required between clean and noisy pathways. PanelMax™ DIN Rail Wiring Duct is also implemented to provide additional panel space savings.



Conventional Panel Layout



Optimized Layout with PanelMax™ Offering



Mitigate Electrical Noise (EMI)

StructuredGround™ Grounding System

Panduit is your one-stop shop for high-quality grounding products to terminate ground wires and bond enclosure doors, subpanels, motors and machine frames in control panels.

StructuredGround™ Flat Braided Bonding Straps

StructuredGround™ Flat Braided Bonding Straps are used to electrically bond enclosure doors, subpanels, motors, and machines in most applications for safety and ESD (Electrostatic Discharge). The flat ferrule design of this bonding component helps to reduce the effects of EMI because it passes high frequency noise more effectively than round stranded type cables.

In applications where motion or vibration is a concern, these straps resist breaking and cracking of individual strands that can degrade the effectiveness of the bond. They are constructed of #4 AWG tin-plated copper with a minimum strap width of 1" and can be terminated with a seamless ferrule that maintains the flat braided shape across its entire length.

Part Number	Description
BS100445	Braided Bonding Strap, one-hole, insulated, 4.00" length x 1.06" width (101.6mm x 27.0mm).
BS100645	Braided Bonding Strap, one-hole, insulated, 6.00" length x 1.06" width (152.4mm x 27.0mm).
BS100845	Braided Bonding Strap, one-hole, insulated, 8.00" length x 1.06" width (203.2mm x 27.0mm).
BS101245	Braided Bonding Strap, one-hole, insulated, 12.00" length x 1.06" width (304.8mm x 27.0mm).
BS100445U	Braided Bonding Strap, one-hole, non-insulated, 4.00" length x 1.06" width (101.6mm x 27.0mm).
BS100645U	Braided Bonding Strap, one-hole, non-insulated, 6.00" length x 1.06" width (152.4mm x 27.0mm).
BS100845U	Braided Bonding Strap, one-hole, non-insulated, 8.00" length x 1.06" width (203.2mm x 27.0mm).
BS101245U	Braided Bonding Strap, one-hole, non-insulated, 12.00" length x 1.06" width (304.8mm x 27.0mm).



Insulated



Non-Insulated



RoHS

StructuredGround™ Universal Ground Bar System

The StructuredGround™ Universal Ground Bar System (UGB) is precision machined from electrolytic copper and tin plated to inhibit corrosion and offers multiple termination methods and mounting options, making it ideal for any control panel or enclosure application. The UGB enables the end user to choose the method in which to terminate conductors with connectors of their choice or simply cut and strip the wires. The UGB system will help reduce the types of ground bars that are needed to meet the various applications and customer requirements. The UGB is UL 467 Listed and CSA 22.2 Certified for grounding and bonding an equipment conductor up to 2/0 AWG; meets UL 508A requirements.



Part Number	Description
UGB2/0-414-6	Universal ground bar accepts #14 – 4 AWG wire in 6 wire ports; add up to a 2/0 AWG main equipment grounding conductor with a compression or mechanical connector; 4.92" (125mm) length, 0.62" (15.7mm) width, 0.48" (12.2mm) height.
UGB2/0-414-12	Universal ground bar accepts #14 – 4 AWG wire in 12 wire ports; add up to a 2/0 AWG main equipment grounding conductor with a compression or mechanical connector; 8.28" (210.3mm) length, 0.62" (15.7mm) width, 0.48" (12.2mm) height.
UGB2/0-414-18	Universal ground bar accepts #14 – 4 AWG wire in 18 wire ports; add up to a 2/0 AWG main equipment grounding conductor with a compression or mechanical connector; 11.64" (295.7mm) length, 0.62" (15.7mm) width, 0.48" (12.2mm) height.
UGB-IN-SO	Universal ground bar isolation stand-offs; includes two stand-offs and hardware; 1.57" (40mm) length, 0.59" (15.0mm) width, 0.98" (25.0mm) height.
UGB-B-SO	Universal ground bar bonding stand-offs; includes two tin-plated copper stand-offs and hardware; 2.34" (59.3mm) length, 0.63" (15.9mm) width, 0.75" (19.1mm) height.



RoHS

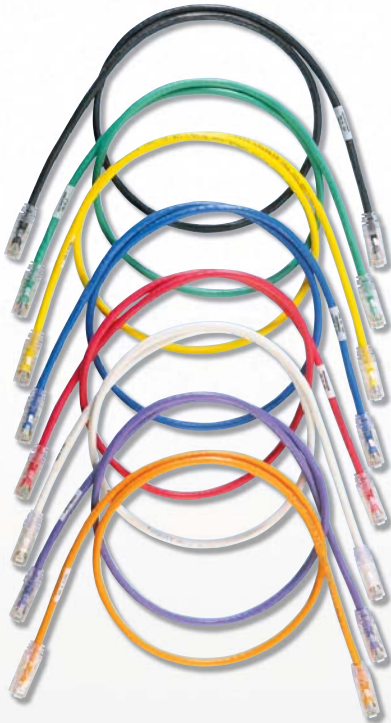
Enable and Future Proof Your Industrial Network

Copper Systems

Panduit offers a full line of innovative copper products that meet the most demanding industry requirements for data and telecommunication applications. Systems are designed to support emerging technologies, including Voice over IP and Gigabit Ethernet, and exceed the latest industry standards to provide assurance of network reliability. Copper jack modules, patch cords, patch panels, punchdown systems, cable assemblies, and pre-terminated solutions provide the greatest value by assuring reliability and providing a foundation for future network growth.



Copper Patch Cords



Panduit patch cords are ideal for patching in panel building applications and are available in performance levels of Category 5e, 6 and 6A for UTP and shielded applications. The variety of cable colors and lengths meet individual length and color-coding requirements for greater system flexibility. Optional removable patch cord color bands snap on and off individual cables allowing the same patch cord to be used for different applications. Optional RJ45 plug lock-in devices offer a tamper resistant design which blocks unauthorized removal of critical connections.

Part Number	Part Description
UTP6A*	Category 6A UTP CM patch cord with TX6™ PLUS Modular Plugs on each end.
UTP6ASD*	Category 6A UTP CM patch cord with TX6™ PLUS Modular Plugs on each end. (70 meter solution).
STP6X*IG	Category 6A shielded patch cord with TX6™ PLUS Shielded Modular Plugs on each end.
UTPSP*Y	Category 6 UTP patch cord with TX6™ PLUS Modular Plugs on each end.
UTPCH*Y	Category 5e UTP patch cord with Pan-Plug® Modular Plugs on each end.
STPCH*MBBL	Category 5e shielded patch cord with Pan-Plug® Modular Plugs on each end.

*A variety of standard lengths and colors are available, contact customer service.

IndustrialNet™ 8-port DIN Rail Mount Patching Solutions

IndustrialNet™ 8-port DIN Rail Mount Patching Solutions conserve precious real estate by consolidating all patching (fiber and copper) onto the DIN rails of a zone enclosure or control panel. These patching solutions are designed to “fit” with standard industrial switches and promote a structured cabling environment in the industrial network. IndustrialNet™ 8-port DIN Rail Mount Patching Solutions allow customers to easily deploy copper and fiber connectivity and provide improved network performance and flexibility through the creation of fiber and copper permanent links in the same modular DIN footprint.



Part Number	Part Description
FDME8RG	8-port DIN Rail Fiber Optic Enclosure provides enclosed fiber protection for terminated distribution style cabling and includes a PG21 or 3/4 NPT cable cord grip to secure fiber cable(s) exiting.
CDPP8RG	IndustrialNet™ 8-port DIN rail mount copper patch panel. Mounting latches securely mount unit to standard DIN rail in industrial applications. Can also mount to other surfaces using mounting holes covers.

Mini-Com® DIN Rail Mount Adapter

DIN rail mount adapter allows one single module space Mini-Com® Module to securely mount to a standard 35mm DIN rail, providing an easy way to quickly move, add or change a connection, with no specialized tools required. It is ideal for any environment where DIN rails are located. Cable is routed into a zone enclosure or control panel where the cable is terminated into a jack that is mounted into the DIN rail adapter; patch cords then connect the active equipment.



Part Number	Part Description
CADIN1IG*	8 DIN rail mount adapter with label, single port, International Gray.

*For standard colors other than IG (International Gray), replace suffix with WH (White), IW (Off White), BL (Black) or EI (Electric Ivory).

IndustrialNet™ Data Access Port

The IndustrialNet™ Data Access Port provides data port and electrical outlet access to control panels without the safety hazards of opening the panel. The access port provides availability to log in to the network at the work site, and can be used for reprogramming internal controllers, and setting up a print terminal. The modular design allows for RJ45 jacks, USB, and other modular connectors which can be interchanged to customize for maximum design flexibility. Snap-on mounting plate covers mounting screws and prevents tampering or unauthorized removal of access port from the control panel. Access port can also be locked with a padlock to secure the outlet. Versions IAPNG5EWH, IAPNGWH are configured with GFCI power receptacle for the United States.

Part Number	Part Description
IAPNGWH	IndustrialNet™ GFCI Data Access Port, White.
IAPNG5EWH	IndustrialNet™ GFCI Data Access Port, Category 5e Coupler and Blank, White.
IAPNGWH	Empty IndustrialNet™ GFCI Data Access Port, White.



Secure Cable Bundles in Challenging Applications

Cable Accessories

Panduit control panel mounting devices offer fast installation and best reliability for routing and securing control panel wiring. Panduit pre-installed adhesives are recognized as the best in the industry, providing fast cure time and a long-term holding strength. The comprehensive range of mounts includes solutions for the most challenging applications, including wiring across an enclosure hinge, providing mechanical strain relief at wire terminations and wires from the panel backplane.



Dynamic Cable Manager

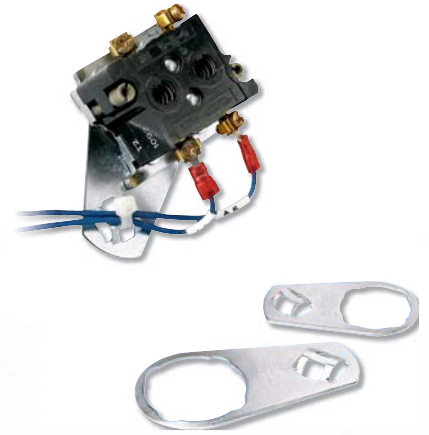


The opening and closing motion of an enclosure door is a common cause of failure of control systems that feature control lights, touch pads, and switches in the panel door. The Panduit dynamic cable manager provides a reliable and cost-effective method for ball-and-socket tether design securing cable bundles that pass across the enclosure door hinge. The ball-in-socket design of the mount prevents excessive strain on the wiring and the mount, improving the overall system reliability.

Part Number	Part Description
ABDCM30-A-C	Dynamic Cable Manager for Panel Strain Relief, 1.12" x 1.12" (28.4mm x 28.4mm), Nylon 6.6, White.

Control Panel Mounts

To ensure reliability of devices on the enclosure door, it is recommended to use mounts to secure each wire near its termination. The Panduit control panel mounts are designed to provide this termination strain relief. These mounts are intended for installation behind a control panel switch and are available in two sizes to fit with most control panel switch designs.



Part Number	Part Description
CPM87S-C	Control Panel Switch Cable Tie Mount, 0.89" (22.6mm) Hole, Material Zinc Plated Steel, Used with Miniature, Intermediate and Standard Cable Ties.
CPM122S-C	Control Panel Switch Cable Tie Mount, 1.22" (31.0mm) Hole, Material Zinc Plated Steel, Miniature, Intermediate and Standard Cable Ties.

ABMQ Multiple Bridge Mount



The ABMQ Multiple Bridge Mount provides a quick and dependable method of supporting, routing, and protecting multiple cables while providing maximum design flexibility. The large adhesive surface area of the ABMQ provides a secure mounting method for up to four cable bundles. Multiple mounts can be combined, providing more cable routing capabilities for complex control panel systems.



Part Number	Part Description
ABMQS-A-C	4-way Adhesive Backed Cable Tie Multiple Bridge Mount, Material ABS, Used with Miniature, Intermediate and Standard Cable Ties. Color White.

Improved Reliability, Security, and Safety

Cable Ties

Panduit leads the industry with the most complete selection of cable tie styles, sizes, materials, and colors. Fasten, bundle, clamp, and manage wiring with products engineered for reliability and performance. The one-piece construction of Pan-Ty® Cable Ties (PLT1M-M) provides low thread force, and the curved tip design speeds installation. Ergonomic cable tie installation tools (GTS, PTS) provide flush cut-off and speed installation to reduce installer fatigue and improve operator safety while delivering consistent, reliable performance.



Abrasion Protection



Panduit offers a full range of abrasion protection products including heat shrink tubing, spiral wrap, corrugated loom tubing, braided expandable sleeving and grommet edging that help ensure high-quality performance by insulating, protecting, bundling and color coding your wires in the most demanding environments. The innovative Pan-Wrap™ Split Harness Wrap provides wire abrasion protection while significantly reducing installation time improving productivity; the patented slotted wall pattern design provides better flexibility, ease of wire breakouts and uniform bundle protection. The patented Pan-Wrap™ installation tool opens 180° allowing for quick, easy loading and installation of maximum bundle diameters to speed installation.

Identification

Panduit offers high performance labeling solutions engineered to exceed UL, CSA, ISO, NEC and OSHA standards. Self-Laminating Labels, Turn-Tell® Labels, Heat Shrink Labels, and Marker Plates provide excellent wire and cable identification for network, power and control systems. Raised panel labels offer a durable on-site, on-demand solution for labeling push buttons, switches, and other areas of a panel. With the Easy-Mark™ and CAD-Connect™ Labeling Software, control panel labels can be created quickly and easily.



Network Security



Network accessories block unauthorized access to existing network infrastructure from the data center to the workstation. These devices save time and money associated with network downtime, data security breaches, infrastructure repair, and hardware replacement due to theft. The innovative design of the blockout device snaps into jack modules and is released with the removal tool, ensuring the safety and security of the network infrastructure. The versatile design of the lock-in device is compatible with most existing patch cords, faceplates, patch panels, IP cameras and other IP devices. It is also compatible with VoIP phones to help prevent unauthorized tampering with connectivity to ensure E911 continuity.

Safety/Facility ID

Panduit offers a comprehensive line of safety and facility identification products for control panels that are designed to assist with compliance of OSHA and NFPA standards. The wide variety of safety and facility products includes padlocks, lockout devices, safety signs, pipe markers, tags, warning labels, arc flash signage, voltage/electrical/fiber optic markers, quality/inspection labels, underground hazard tapes and on-demand print capabilities.



Terminals



Panduit loose piece terminals include a wide variety of connectors for control panel applications including: grounding, I/O routing and low voltage power distribution. UL and CSA listed connectors are available in wire ranges from #26 – #2 AWG. These connectors are offered as non-insulated or insulated with nylon, vinyl or other materials. The Panduit selection includes rings and forks for wire-to-stud applications, female and male disconnects for wire-to-tab applications, joints and splices for wire-to-wire applications and ferrules and pins for wire-to-clamp applications.

Ferrules

Panduit ferrules provide the ideal solution for managing the stripped end of flexible wire in panel building applications. The extensive line of ergonomic tooling includes controlled cycle hand tools, semi-automatic and automated crimp tools that combine with Panduit ferrules to provide consistent terminations with maximum reliability. Offered in a wide selection of configurations including: ferrules with sleeves, sleeves for twin wires, sleeves for short circuit protection, and expanded sleeves in wire sizes #26 AWG to 400 kcmil. These seamless, tin-plated copper ferrules meet DIN 46228 parts 1 and 4.



Power Connectors



Panduit copper compression lugs and splices are designed to terminate a wide variety of code and flexible strand wire types for sizes # 14 AWG – 1,000 kcmil and 4mm² – 630 mm². Panduit offers a variety of crimping tools including ergonomically designed hand tools, Lithium-Ion powered battery tools and electro-hydraulic tools for continuous crimping operations. Panduit compression connectors are UL Listed and CSA Certified when terminated with Panduit and select competitive crimping tools. In addition, select Panduit connectors meet NEBS Level 3, ABS and IEC standards requirements and are CE compliant. Panduit also offers a broad variety of aluminum and copper mechanical lugs and multi-tap connectors for terminating 14 AWG – 1,000 kcmil copper and aluminum code conductors. Panduit mechanical connectors are UL Listed and CSA Certified to provide safe and reliable terminations.



Part of Panduit's End-to-End Industrial Automation Solutions

Whether the solution is for electrical, networking or control systems, Panduit is uniquely qualified to understand the complexities of plant-level networks and controls. The Panduit Control Panel Solution is part of our Industrial Automation Solution that delivers our system expertise and innovations to improve reliability, security, and safety while reducing operating costs.

The five core solution groups of Panduit's Industrial Automation Solution include:

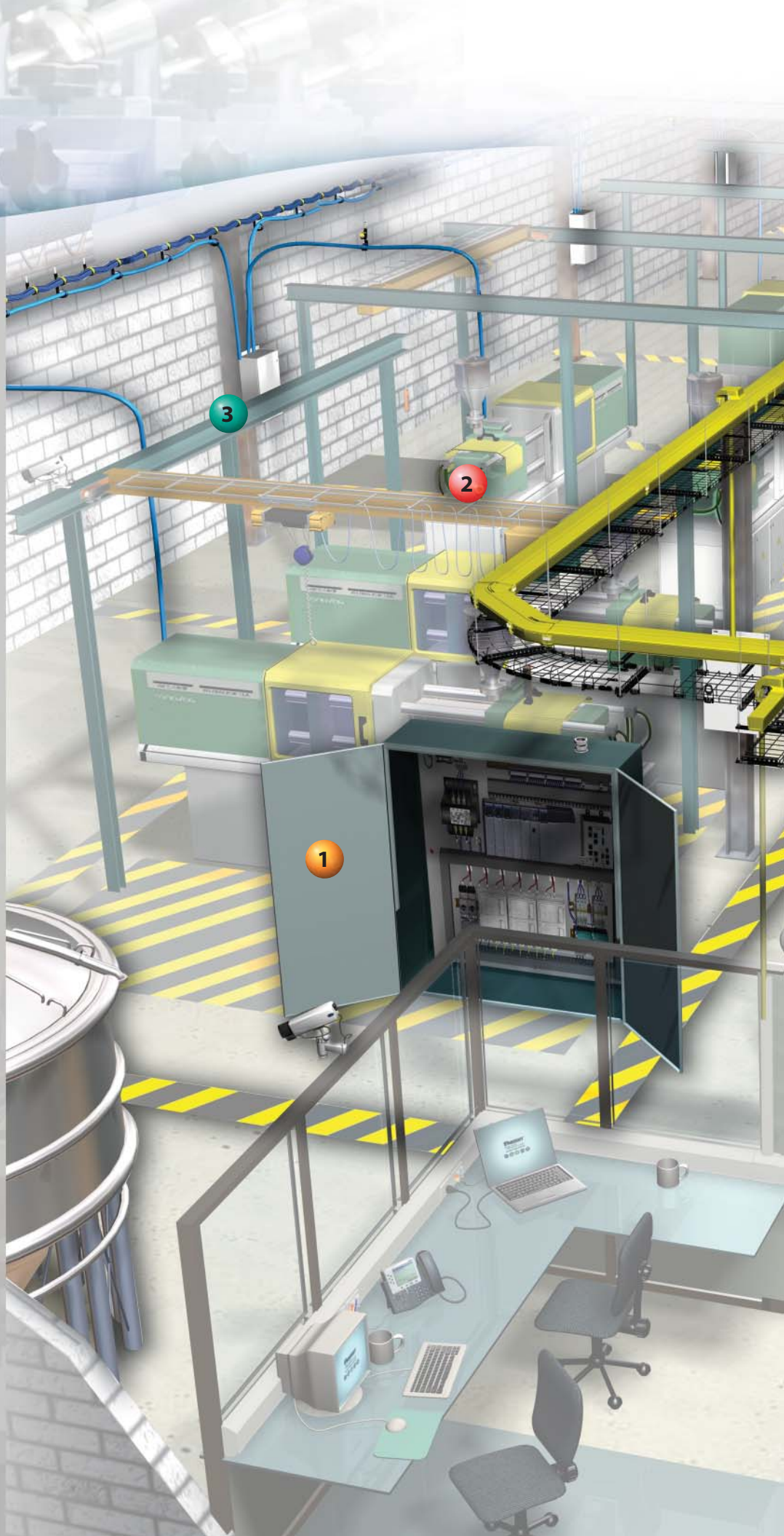
IN-Panel (Control Panels, Electrical Panels, Motor Control Center) – includes innovative products and complementary tools that mitigate disruptions due to electrical/mechanical noise, to ensure reliable system performance and maximize valuable real estate.

IN-Field (On the Machine, In the Process Areas, or Outdoors) – delivers distributed automation products that withstand demanding environmental conditions such as high vibration, caustic chemical vapors, washdown, and radiation, while reducing repair and replacement costs.

IN-Route (Industrial Pathways and Network Zone Enclosures) – offers both open and enclosed methods for routing cable to reduce installed costs and improve the time/effort for moves, adds, and changes (MACs). Network Zone Enclosures provide real estate savings and performance benefits of a zone cabling architecture.

IN-Room (Control Room, Data Center, Telco Closet) – provides a complete infrastructure to support dedicated manufacturing servers/switches and enable DIN mounted devices to be co-located, increasing productivity with a Micro Data Center Solution.

IN-Frastructure (Power Distribution, Lighting, HVAC, Security, Safety) – deploys power and grounding strategies that achieve lowest total cost of ownership, while protecting your workforce and securing your network assets.



Real-World Solutions

*With a proven reputation for excellence and innovation, Panduit and our partners work with you to overcome challenges and implement real-world solutions that create a competitive business advantage. Panduit offers the broadest range of solutions, from data centers and intelligent buildings to manufacturing operations, to help you build a **smarter, unified business foundation.***



Technology Leadership

Panduit develops innovative physical infrastructure solutions that meet the rapidly changing needs of our clients, from hardware and software to advisory services. This commitment is supported by investment in advanced research, solutions-focused product development, world-class manufacturing, and collaboration with customers at the forefront of technology.



Partner Ecosystem

Our best-in-class partner ecosystem offers a comprehensive portfolio of services that span the project lifecycle, from planning and design to delivery, deployment, maintenance, and operation. Panduit business partners – distributors, and certified architects, consultants, engineers, designers, system integrators, and contractors – are qualified to help you achieve your objectives and realize predictable and measurable results.



Strategic Alliances

Panduit cultivates long-term strategic alliances with industry leaders, including Cisco Systems, EMC, IBM, and Rockwell Automation, to develop, optimize, and validate solutions for our customers. This investment in people and resources helps solve our customers' greatest business challenges.



Global Business Commitment

Panduit is committed to delivering a consistently high level of quality and service the world over. With a presence in more than 100 countries, local Panduit sales representatives and technical specialists offer guidance and support that bring value to your business. Our global supply chain, which includes manufacturing, customer service, logistics, and distribution partners, provides prompt response to your inquiries and streamlines delivery to any worldwide destination.



Sustainability

With a commitment to environmental sustainability, Panduit develops and implements solutions that protect, replenish, and restore the world in which we live. This commitment is demonstrated by Panduit's LEED Gold certified World Headquarters, leveraging the Unified Physical InfrastructureSM approach to enable convergence of critical building systems to drive energy efficiency and ongoing operational improvement.

*Transform Your
Physical Infrastructure*

*Call or visit us online,
we can show you how.*

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