



Smart Control Panel Solutions

Panduit Control Panel Solutions Deliver Reliable System Performance

Panel builders, 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 cost saving opportunities, such as reduced enclosure and panel costs; in others, it provides the flexibility necessary for future additions or changes. In either case, Panduit 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 organize, connect, 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.

RoHS



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

Innovative Products for Reliable Control Panel Performance

Everything You Need To Organize, Connect, and Protect.

1 Wiring Duct



2 Cable Ties



3 Mounts



4 Identification System



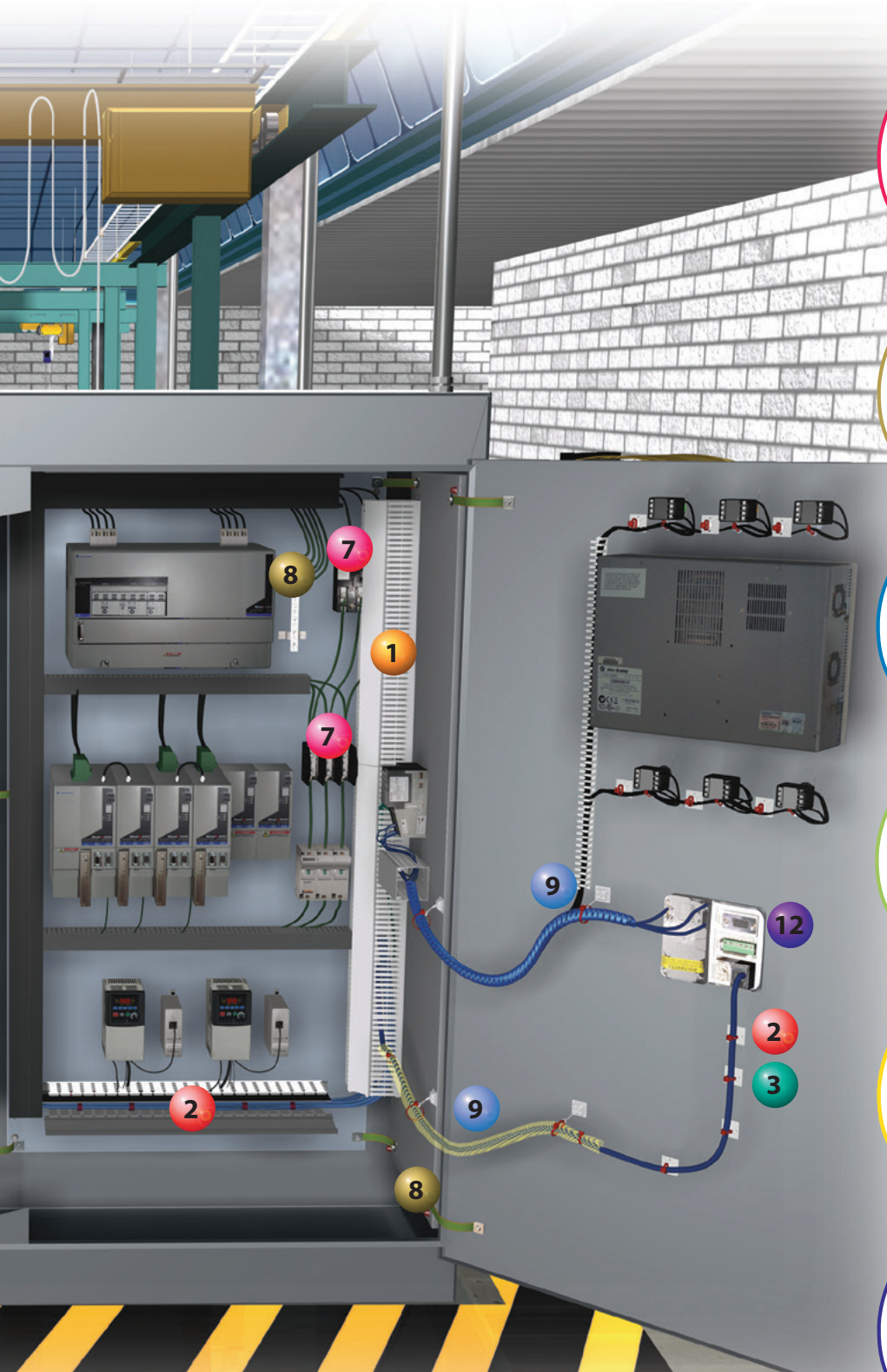
5 Terminals and Ferrules



6 DIN Rail Mount Patching



Your Complete Control Panel Solution



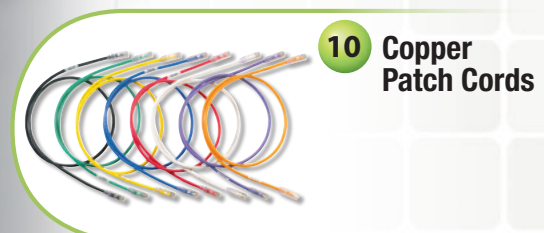
7 Power Connectors



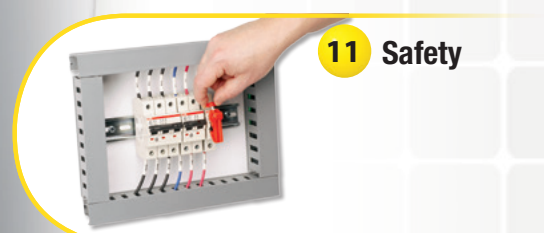
8 Grounding Connectors



9 Abrasion Protection



10 Copper Patch Cords

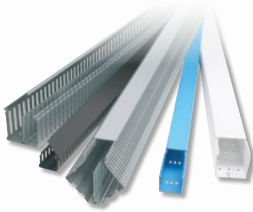


11 Safety



12 Data Access Port

Panduct® Wiring Duct Solutions



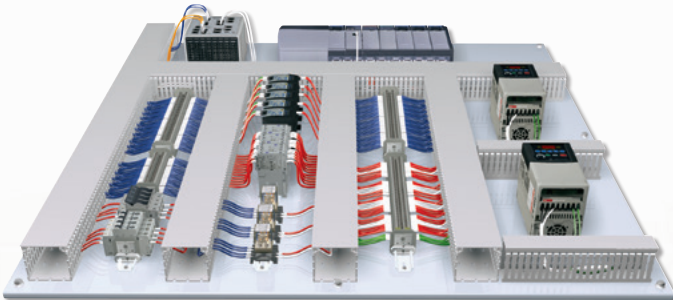
Panduit Panduct® Wiring Duct is the premier wire management solution for routing, protecting, and concealing wiring in control panels. A wide variety of sizes, colors and materials are available to meet the wire capacity needs and space constraints of the smallest wall mounted panels to the largest integrated 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

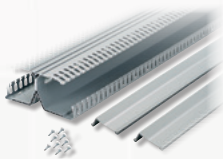
Panduct® PanelMax™ DIN Rail Wiring Duct

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

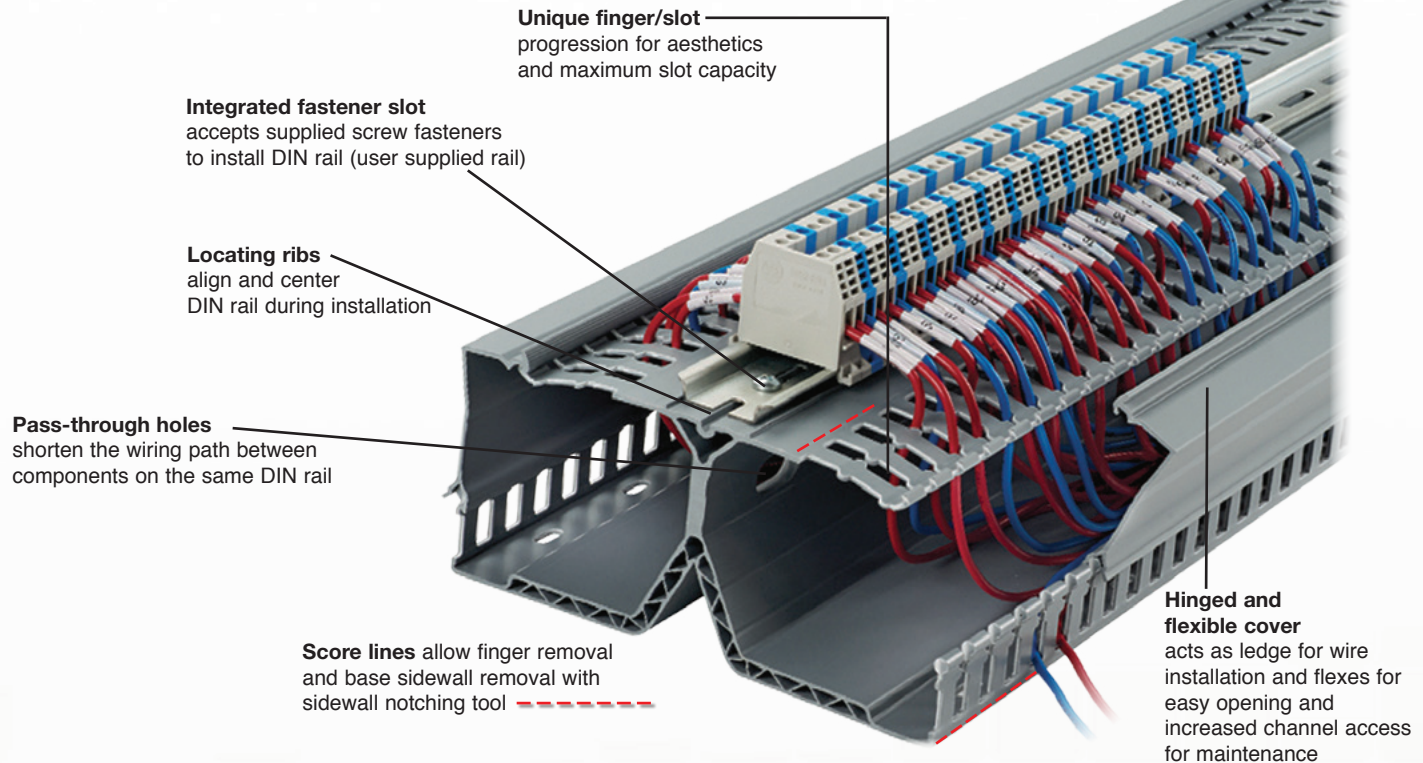


DRDCS

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



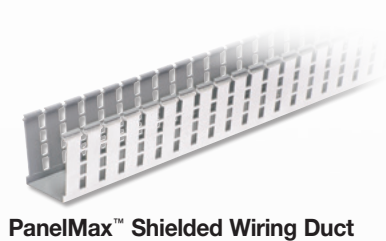
SD4H6

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

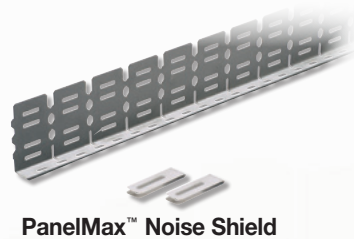
Reduce EMI Noise/Signal Interference

Panduct® 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 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



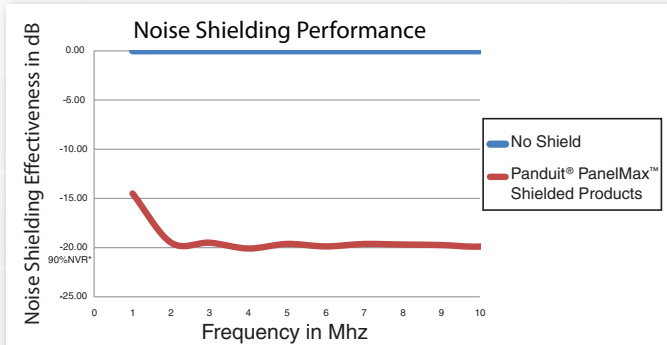
PanelMax™ Noise Shield

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.

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).

Panduct® Hinged Cover Wiring Duct

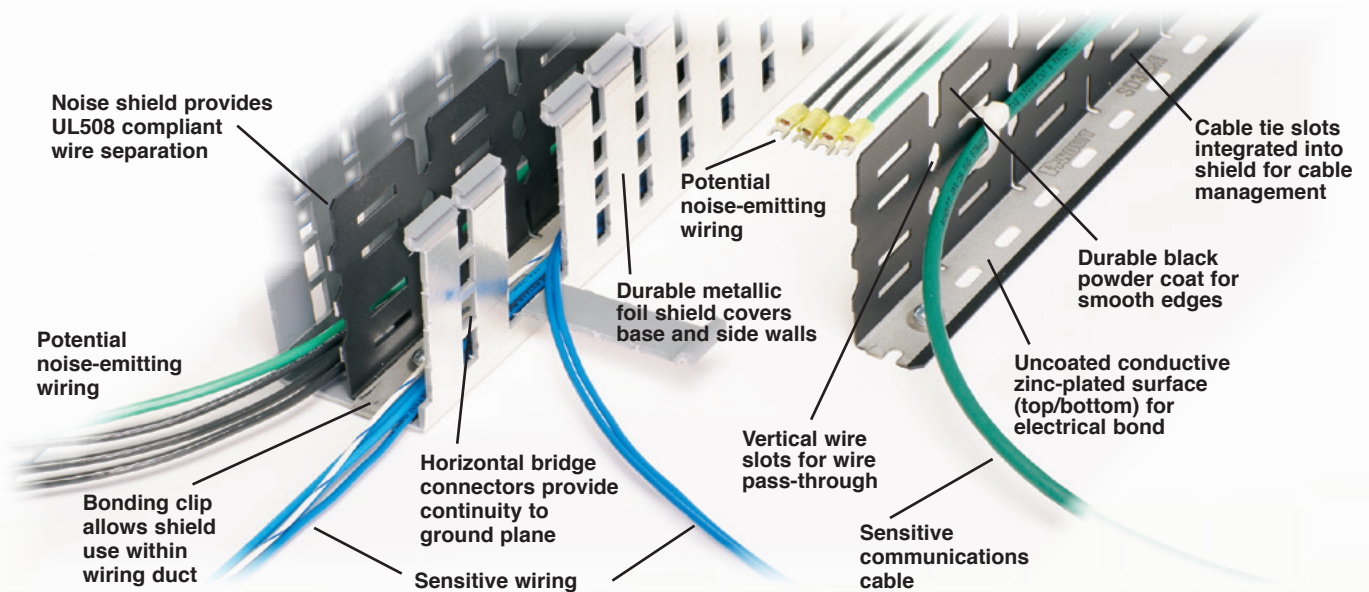
Panduit innovative dual-sided hinged wiring duct delivers improved wire management and aesthetics for electrical control panel and communication applications. The unique push-on hinged cover is easier to install and remove than traditional wiring duct covers and once installed can be opened from either side of the duct. Hinged cover wiring duct provides faster access to wiring, prevents cover loss, reduces maintenance costs and promotes safety.



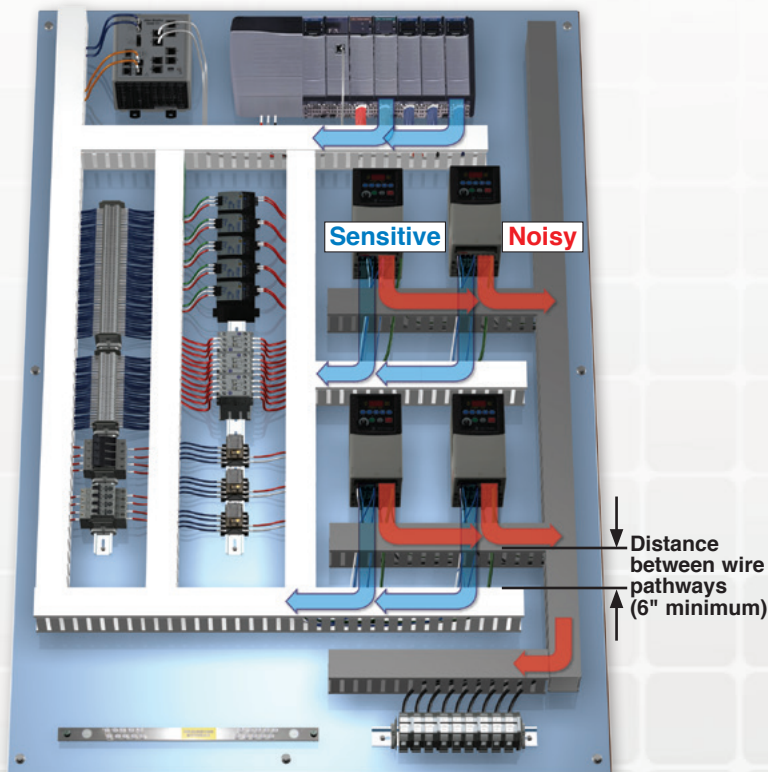
Part Number	Description
HN2X2LG6	Panduct® type HN hinged cover narrow slot wiring duct, 2" W x 2" H, 6' length, PVC, light gray.

Optimized Layout with PanelMax™ Offering

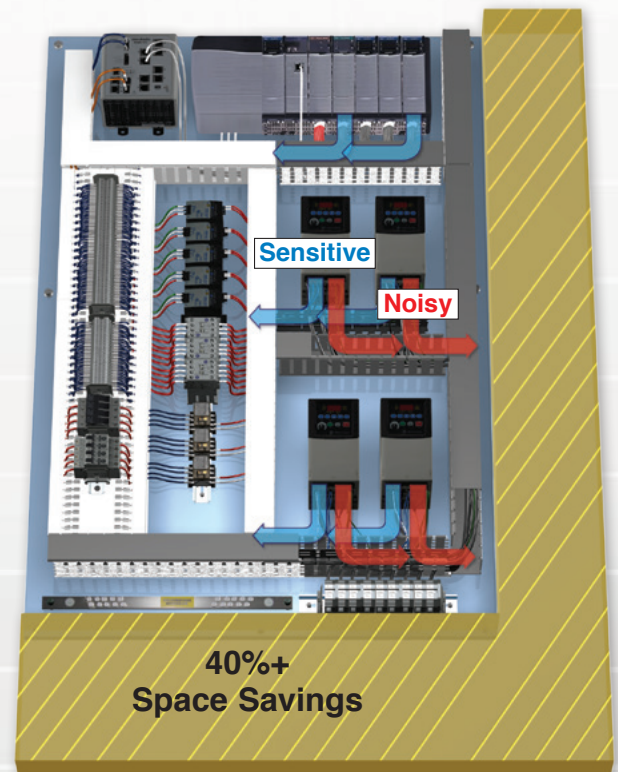
An optimized panel layout uses PanelMax™ Shielded Wiring Duct and Noise Shield to provide noise mitigation with reduced distance spacing required between clean and noisy pathways. PanelMax™ DIN Rail Wiring Duct is also implemented to provide additional panel space savings.



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

Drives and Electrical Enclosures

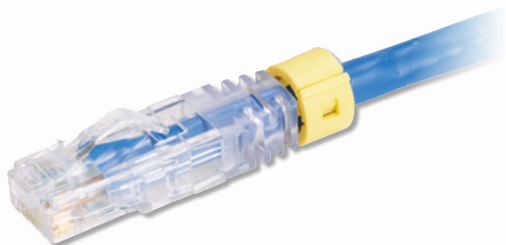
Introducing the latest power circuit wiring components from Panduit. The new mechanical lugs are made from high conductivity electrolytic copper. UL listed for use in the U.S. and Canada. The new dual-rated neutral bars are made from high strength aluminum alloy, tin plated to prevent corrosion and oxidation. UL listed and CSA certified.



Part Number	Description
CCB4/0-1AR-Q	One-hole, Copper mechanical connector, Anti-Rotation Lug, #2 AWG - 4/0 AWG STR, Pkg. Qty. = 25.
NBA350-12	Neutral Bar, Assembly, 12 Port, Al., Tin-Plated, 14-6 awg, with connector 350-6 AWG
CXS125-14-Q	One-hole, copper, single barrel, straight fixed tongue lug, #4 - 1/0 AWG, 1/4" (6.4mm) stud hole.
CXS35-36-C	One-hole, copper, single barrel, straight fixed tongue lug, #14 - #6 AWG, 3/16" (4.8mm) stud hole.
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.

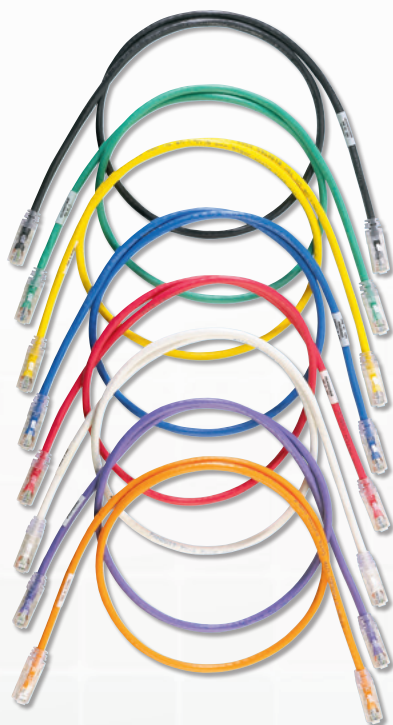
Enable and Future Proof Your Industrial Network

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 that 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 and 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.

Industrial Network Uninterruptible Power Supply (UPS)

The Panduit Industrial Network UPS is intended to provide uninterrupted power for critical applications including managed network switches, micro PLCs, and HMIs deployed on the factory floor. The device is suitable for use in extremely low temperature environments and elevated temperatures without loss of performance or reduced life.



Part Number	Part Description
UPS003024024015*	Uninterruptible Power Supply (UPS), 35 Watts for 5 minutes, 24 VDC in/out, DIN rail mount. Electrical Safety per UL 1778, CSA #107.3-05, UL 508, CSA #107.1-01, UL and CSA 60950. Hazardous Location Class I, Division 2 per ISA 12.12.01 and CSA 213. Electrical Noise Emissions and Immunity per FCC 47CFR 15B and ICES 003.EtherNet/IP CONFORMANCE TESTED***.

IndustrialNet™ Copper Physical Layer Solutions

IndustrialNet™ plugs, connectors, and adapters provide an ideal solution to support Industrial Ethernet from the Local Area Network (LAN) based support offices to the processing devices on the plant floor.



Part Number	Part Description
ISPS5E44MFA	4-position, IndustrialNet™ M12 D-Code plug, for use with stranded 26/7 - 22/7 AWG Category 5e, UTP Copper Cable.
IAEBH5E	Category 5e, 8-position, 8-wire industrial connector with protective cover.
ICAM12DRJS	Category 5e, M12 D-code to RJ45 industrial adapter, panel mount.

Identify Critical Components and Wire Connections

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.



Part Number	Part Description
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Turn-Tell® Labels

R050X075V1T	Thermal Transfer, Vinyl, 0.50" W x 0.75" H, 0.25" POA, Clear/White, 3" Core, 18 – 14 AWG wire/cable.
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Thermal Transfer Labels

C120X190A0T-22	Thermal transfer raised panel push button label, 1.20" W x 1.90" H, raised panel, black, 3 labels/row, 500 pc. package quantity.
C120X190AWT-22	Thermal transfer raised panel push button label, 1.20" W x 1.90" H, raised panel, red, 3 labels/row, 500 pc. package quantity.
C120X190AST-22	Thermal transfer raised panel push button label, 1.20" W x 1.90" H, raised panel, green, 3 labels/row, 500 pc. package quantity.

Desktop and Hand-Held Printers

TDP43ME	300 dpi printer; includes printer, Panduit® Easy-Mark™ Labeling Software, RMEH4BL hybrid black ribbon, AC power adapter with US power cord, USB cable, user manual, quick start card, and driver disk; for use in N.A.
LS8EQ	Includes LS8EQ hand-held printer with QWERTY keypad, one cassette of S100X150VAC self-laminating labels, six AA alkaline batteries, and quick reference card.

NEC Warning Labels

PCV-480BY	Voltage marker, 4.5" W x 1.13" H, '480 Volts' (legend), vinyl, black/orange, 4/card, 5 cards/package
PVS0305W2102Y	NEC warning label, 3.5" H x 5.0" W (88.9mm x 127.0mm), warning header, 'Arc flash and shock hazard appropriate PPE required...' (legend) with symbol, vinyl adhesive, orange header and black/white, 1 sign/card, 5 cards/package.
PVS0305W2201Y	Vinyl adhesive sign, 3.5" H x 5.0" W, warning header, 'Risk of fire or electric shock..' (legend), vinyl adhesive, orange and black/white, 2 sign/card, 5 cards/package.

Secure Cable Bundles

Dynamic Cable Manager

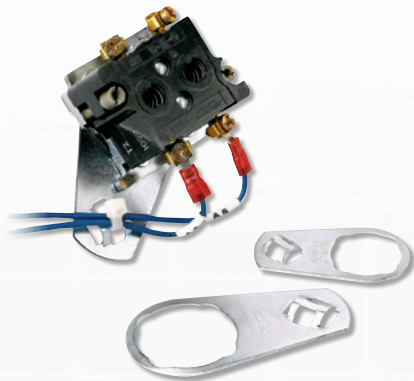
The opening and closing motion of an enclosure door is a common cause of failure of control systems that feature control lights, touch pads, and switches in the panel door. The Panduit dynamic cable manager provides a reliable and cost-effective method for ball-and-socket tether design securing cable 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

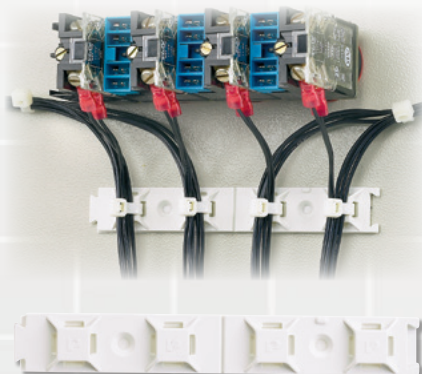
To ensure reliability of devices on the enclosure door, it is recommended to use mounts to secure each wire near its termination. The Panduit control panel mounts are designed to provide this termination strain relief. These mounts are intended for installation behind a control panel switch and are available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

Everything You Need to Organize, Connect, and Protect



Cable Ties

Panduit leads the industry with the most complete selection of cable tie styles, sizes, materials, and colors. Ergonomic cable tie installation tools (GTS-E, 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.



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.



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.



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.



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.



Power Connectors

Panduit offers copper compression lugs and splices 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 also 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 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:

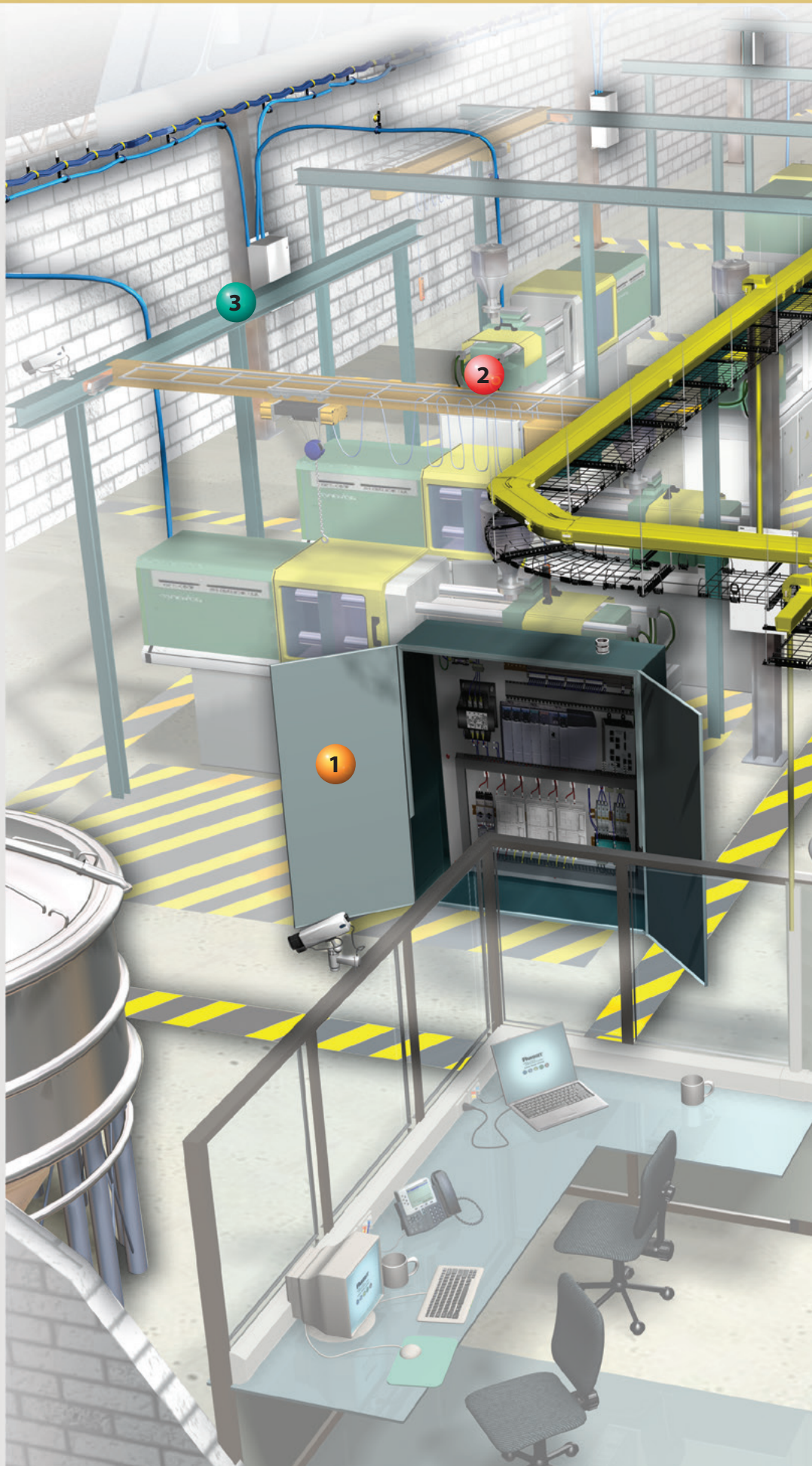
IN-Panel (Control Panels, Electrical Panels, Motor Control Center) – includes innovative products and complementary tools that mitigate disruptions due to electrical/mechanical noise, to ensure reliable system performance and maximize valuable real estate.

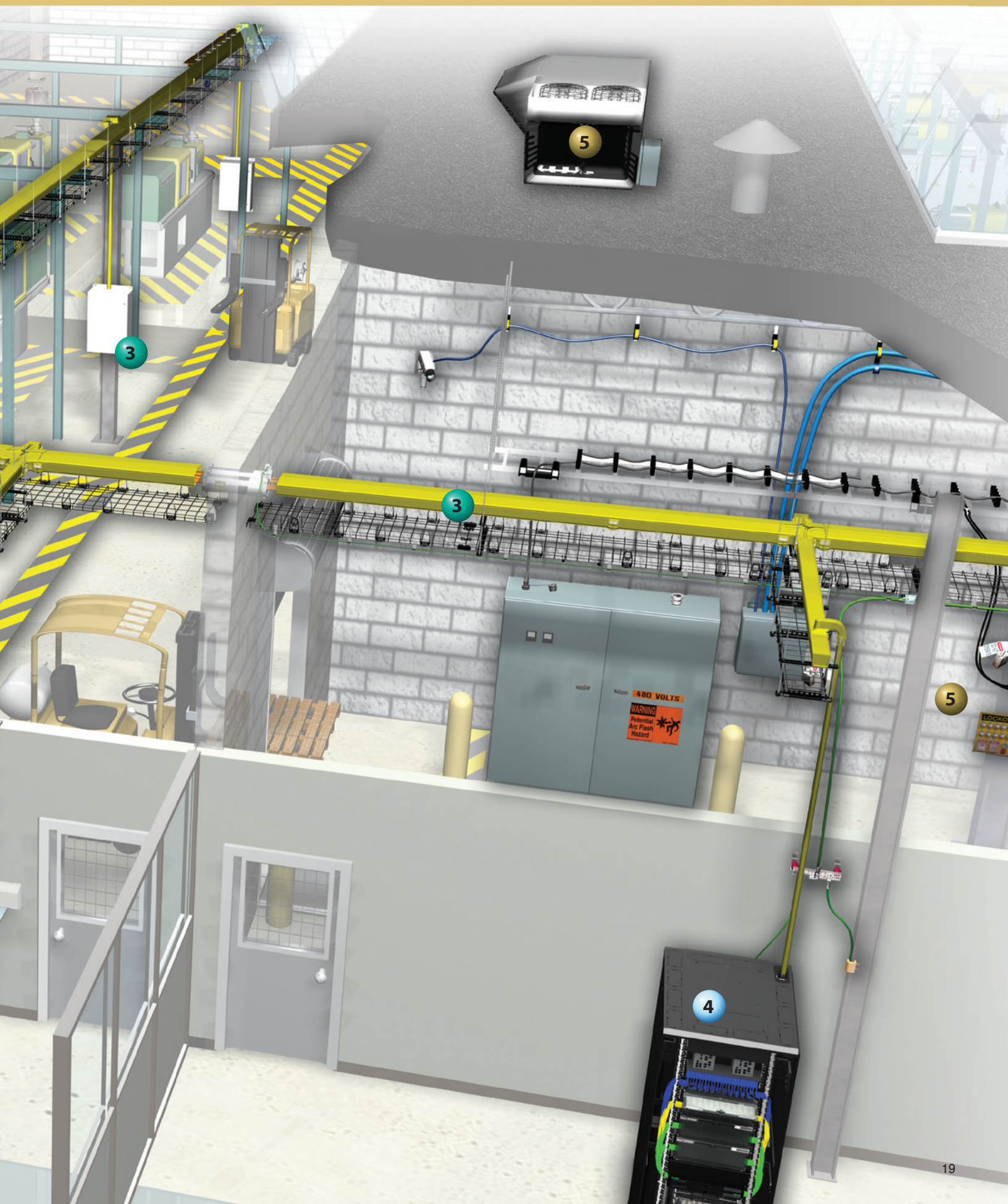
IN-Field (On the Machine, In the Process Areas, or Outdoors) – delivers distributed automation products that withstand demanding environmental conditions such as high vibration, caustic chemical vapors, washdown, and radiation, while reducing repair and replacement costs.

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.







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