Smart Control Panel Solutions

PANDUIT®

infrastructure for a connected world

Innovative Products for Reliable Control Panel Performance

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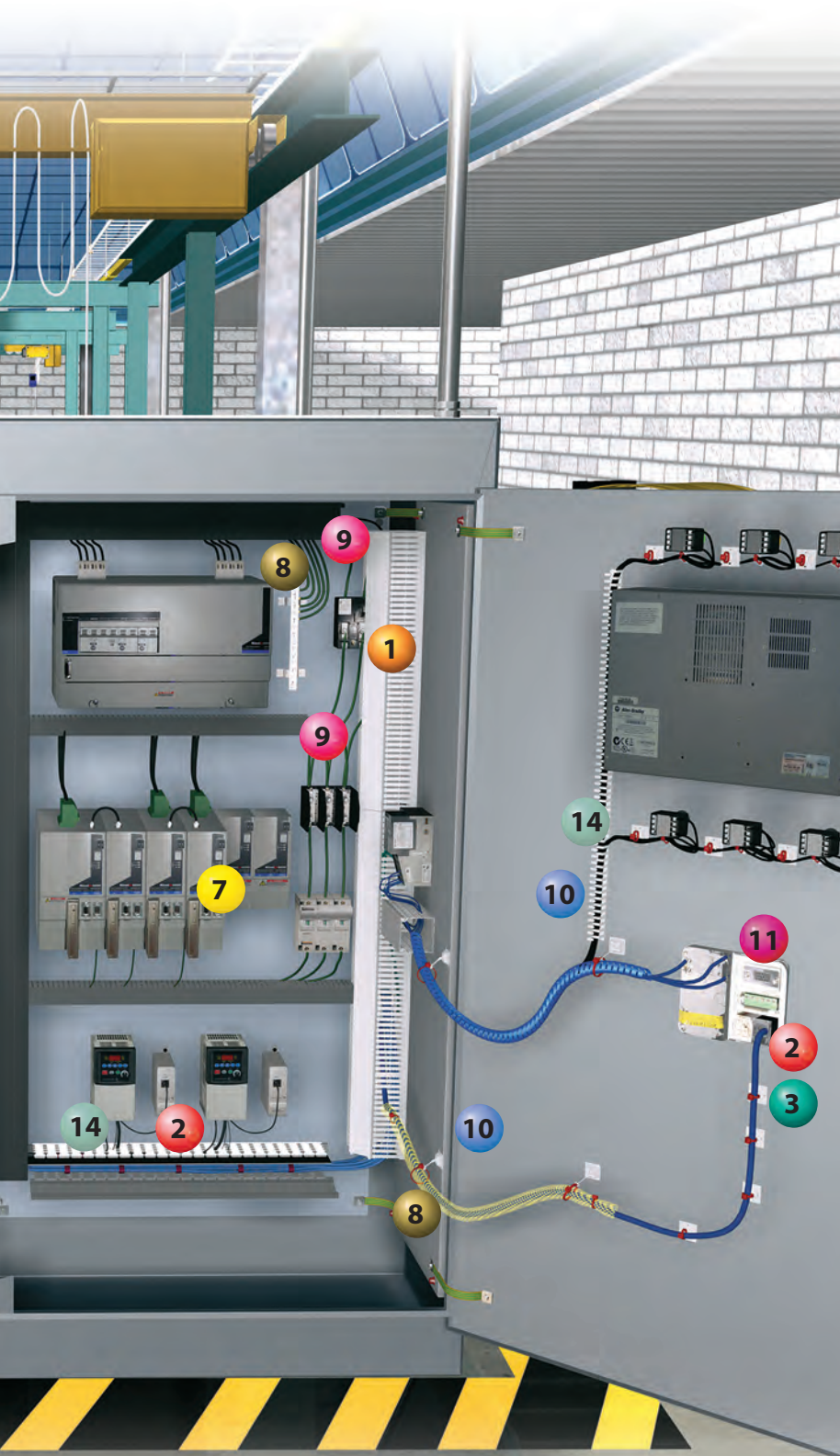Page 10

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⚠ **WARNING**
Arc Flash & Shock Hazard
Appropriate PPE Required

FLASH PROTECTION   SHOCK PROTECTION
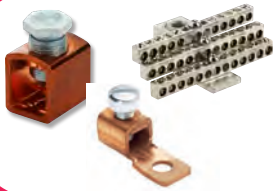
Everything you need to enable space optimization, productivity, safety and security.

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Panduit Control Panel Solutions
Deliver Reliable System Performance

Optimizing Space in the Control Panel (pages 5-7)

In manufacturing organizations, real estate is typically one of the biggest expenses associated with running the business. As a result, production facility managers are under pressure to manage their space in the most effective and efficient manner to minimize capital and operational expenses. This can mean placing as much equipment as possible into a given area in the facility, which challenges equipment designers and builders to reduce the size and footprint of the machines they create. This, in turn, challenges the controls engineers to design and build control panels within a smaller footprint or fit more equipment into an existing space. There are many challenges associated with designing smaller control panels. Considerations for cable segregation, thermal management, cable entry, electromagnetic interference (EMI), cable bend radius and space for future expansion must be addressed when attempting to reduce the size of control panels.

Improving Productivity in Control Panel Applications (pages 8-16)

Efficiency. Output. Yield. Productivity. Businesses today insist on accomplishing as much as possible in as little time as possible. Products and processes that maximize uptime, reduce costs and meet production deadlines are in high demand as machine designers and builders race to remain competitive and deliver upon their customer's expectations.

Mitigating Security and Safety Risks (pages 17-22)

Integrating the security element into equipment and enclosures is essential as it allows design/controls engineers to create multiple layers of security that work together to protect the network and equipment without retrofitting or replacing components. Physical security solutions that help control access to automation devices can be effective additions to other layers of security employed in contemporary control systems. Panduit offers diverse and complete solutions for protecting equipment from intentional and unintentional security threats to add value to their customers' physical security needs.

While safety in the workplace is everyone's responsibility, it is particularly crucial that facility managers, electricians, and control panel engineers take all recommended precautions to ensure a safe environment for employees. These precautions not only prevent harm and danger, but also impact the bottom line, both directly and indirectly. Panduit has developed a wide range of solutions designed to protect workers against mechanical, electrical and hazardous situations, as well as products that provide multiple layers of security that work together to protect equipment.

## The Connected Control Panel (pages 23-27)

The manufacturing plant floor is undergoing dramatic changes that require businesses to adopt new strategies to fully utilize Industrial Ethernet through things such as advanced motor controls and control architectures to improve efficiencies, increase productivity and drive out costs.

The increasing number of Ethernet nodes on the plant floor and the need to measure productivity in real-time are frequent challenges. Greater use of Ethernet connected advanced controllers, computers and high-speed motion control and power electronics require new design strategies beyond traditional panel selection and layout to ensure the automation systems deliver improved network performance and accommodate an increasing use of Industrial Ethernet managed switches and networked devices. Copper and fiber connectivity for harsh environment deployments, DIN rail mountable patching devices, Motor Control Center (MCC) Connectivity, and Uninterruptible Power Supplies are integrated into the control panel design for a complete network Connected Control Panel.

Space Optimization

Regardless of the challenges encountered, Panduit solutions will provide maximum optimization of the limited space inside a control panel. Optimized control systems increase design flexibility and organization while providing robust, environment-rated solutions that ensure ideal performance, availability and uptime.

Panduct® PanelMax™ DIN Rail Wiring Duct c(UL)us (SA) CE
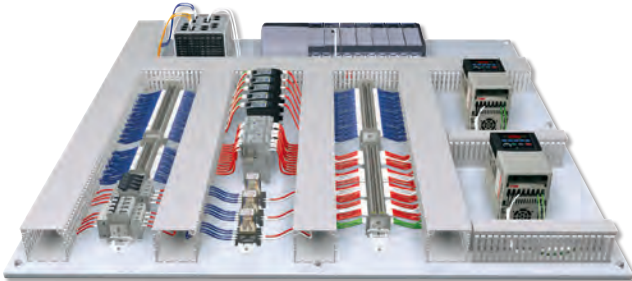
Conventional wiring duct panel layout

30% + Space Savings

DIN rail wiring duct panel layout with 30% space savings

DRD

DRDWR

DRDCS

Part Number	Description	Std. Pkg. Qty.
DRD22LG6	2" height PanelMax™ DIN Rail Wiring Duct with dual wiring channels. Base, covers, and DIN rail fasteners included. Length 6'.	6 Ft.
DRD33LG6	3" height PanelMax™ DIN Rail Wiring Duct with dual wiring channels. Base, covers, and DIN rail fasteners included. Length 6'	6 Ft.
DRD44LG6	4" height PanelMax™ DIN Rail Wiring Duct with dual wiring channels. Base, covers, and DIN rail fasteners included. Length 6'.	6 Ft.
DRDC2LG6	2" Replacement Cover for PanelMax™ Rail Duct. Length 6'.	6 Ft.
DRDC3LG6	3" Replacement Cover for PanelMax™ Rail Duct. Length 6'.	6 Ft.
DRDC4LG6	4" Replacement Cover for PanelMax™ Rail Duct. Length 6'.	6 Ft.
DRDSF-C	Replacement DIN rail fasteners for PanelMax™ DIN Rail Wiring Duct.	100 Pcs.
DRDWR2-X	2" wire retainer for PanelMax™ DIN Rail Wiring Duct, Black. 10 per package.	10 Pcs.
DRDWR3-X	3" wire retainer for PanelMax™ DIN Rail Wiring Duct, Black. 10 per package.	10 Pcs.
DRDWR4-X	4" wire retainer for PanelMax™ DIN Rail Wiring Duct, Black. 10 per package.	10 Pcs.
DRDCS2-X	2" corner strip for PanelMax™ DIN Rail Wiring Duct. 10 per package.	10 Pcs.
DRDCS3-X	3" corner strip for PanelMax™ DIN Rail Wiring Duct. 10 per package.	10 Pcs.
DRDCS4-X	4" corner strip for PanelMax™ DIN Rail Wiring Duct. 10 per package.	10 Pcs.

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

DIN rail and DIN component compatible

Unique finger/slot progression for aesthetics and maximum slot capacity

Integrated fastener slot accepts supplied screw fasteners to install DIN rail (user supplied rail)

Locating ribs align and center DIN rail during installation

Pass-through holes shorten the wiring path between components on the same DIN rail

Score lines allow finger removal and base sidewall removal with sidewall notching tool
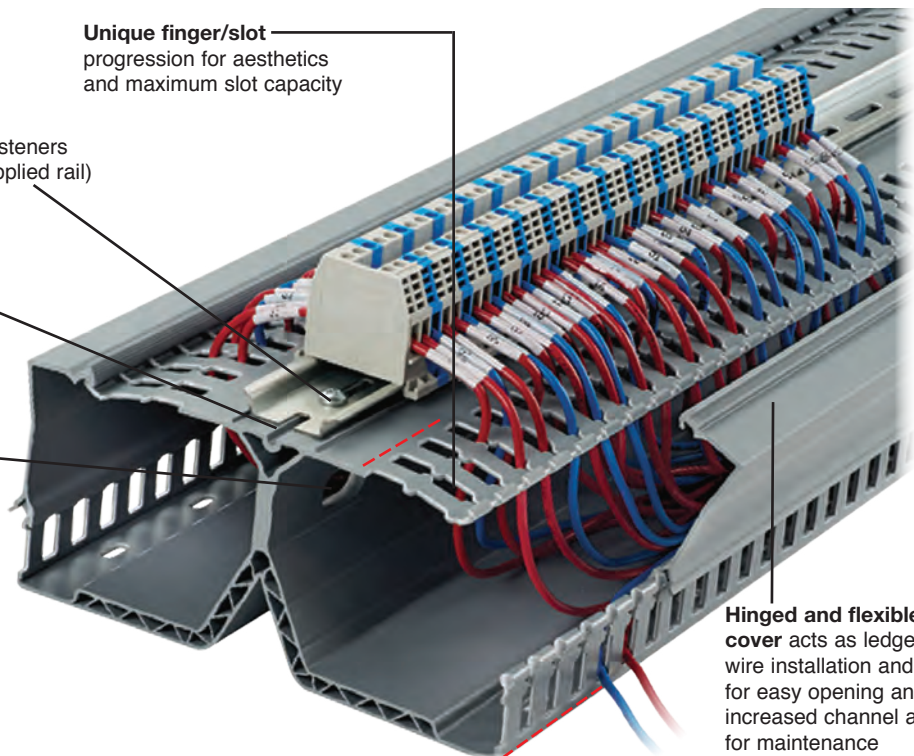
Hinged and flexible cover acts as ledge for wire installation and flexes for easy opening and increased channel access for maintenance

5

Panduct® PanelMax™ Corner Wiring Duct
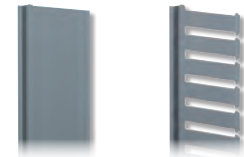
PanelMax™ Corner Wiring Duct is used in the vertical corners of medium to large electrical control panels (with both side and back panels) to route, conceal, and protect electrical wiring.

Part Number	Part Description	W x H In.	W x H (mm)	Cover Part Number	Std. Pkg. Qty.
CWD2LG6	One-piece corner wiring duct for use with 2" height wiring duct.	3.35 x 2.57	85.0 x 65.3	C2LG6	6 Ft.
CWD3LG6	One-piece corner wiring duct for use with 3" height wiring duct.	4.40 x 3.57	111.8 x 90.7	C2LG6	6 Ft.
CWD4LG6	One-piece corner wiring duct for use with 4" height wiring duct.	5.33 x 4.58	135.3 x 115.7	C2LG6	6 Ft.

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

CWD2LG6 CWD3LG6 CWD4LG6   **C2LG6**

CDCLP3 CDCLP4

| Part Number	Part Description	Screw or Fastener Required	Std. Pkg. Qty.
CDCLP3	Quick mounting clip for installing CWD3 corner wiring duct.	#10 – 32 x 1/2" (user supplied)	16 Pcs.
CDCLP4	Quick mounting clip for installing CWD4 corner wiring duct.	#10 – 32 x 1/2" (user supplied)	16 Pcs.
D4H6	4" height solid divider wall for use with CWD2, CWD3, or CWD4 corner wiring duct.	Installs directly to PanelMax™ Corner Wiring Duct base	6 Ft.
SD4H6	4" height slotted divider wall for use with CWD2, CWD3, or CWD4 corner wiring duct.	Installs directly to PanelMax™ Corner Wiring Duct base	6 Ft.

D4H6   **SD4H6**

Examples of Space Savings Using 48" W x 24" D x 60" H Enclosure

Conventional Wiring Duct
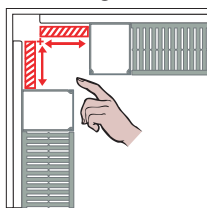
Need for cover access moves conventional duct outward.

PanelMax™ Corner Wiring Duct
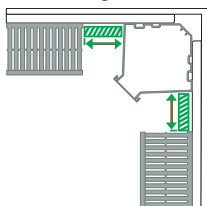
Gains up to 5ft2 mounting space per enclosure (over 72" height)

| Description	Conventional	With PanelMax™ Corner Wiring Duct	Benefits
Sub-Panel Space Savings			
Usable sub-panel mounting area (assumes 60"H enclosure)	28.7 ft.^{2}	32.2 ft.^{2}	Provides 12% more space, maximizing space utilization for more panel components and greater flexibility in panel layout design
Footprint Space Savings			
Footprint width x depth (square footage)	48" x 24" (8 ft.^{2})	43.5" x 21.7" (6.6 ft.^{2})	Provides 12% more space, maximizing space utilization for more panel components and greater flexibility in panel layout design
Floor space cost**	$560	$462***	18% reduction in enclosure size; ideal for space contrained environments
Encloseure and sub-panel costs	$3,700	$3,050***	$650 in enclosure savings

**Based on $70/square foot industrial facility construction cost.
***This is a representative application. Actual savings dependent on wiring duct size, component layout and enclosure size and type.
Footprint savings is based on commercially available enclosures and may not be achievable in some applications.

Panduct® PanelMax™ Shielded Wiring Duct and Noise Shield

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.
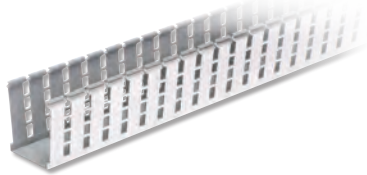
| Part Number	Description	Std. Pkg. Qty.
G2X2LG6EMI	2" x 2" PanelMax™ Shielded Wiring Duct; 6' length. Foil metal finish includes anti-oxidizing paste. Cover sold separately.	12 Ft.
G2X3LG6EMI	2" x 3" PanelMax™ Shielded Wiring Duct; 6' length. Foil metal finish includes anti-oxidizing paste. Cover sold separately.	12 Ft.
G2X4LG6EMI	2"x 4" PanelMax™ Shielded Wiring Duct; 6' length. Foil metal finish includes anti-oxidizing paste. Cover sold separately.	12 Ft.

Use C2LG6 or C2WH6 cover with shielded wiring duct. Standard package quantity in feet.
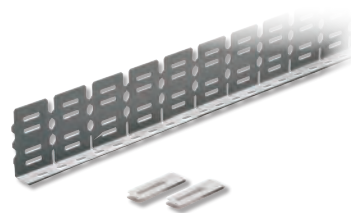
Part Number	Description	Std. Pkg. Qty.
SD2EMI	EMI noise shield kit for 2" height Panduit wiring duct; two 3' sections, bonding clips, and anti-oxidizing paste.	1
SD3EMI	EMI noise shield kit for 3" height Panduit wiring duct; two 3' sections, bonding clips, and anti-oxidizing paste.	1
SD4EMI	EMI noise shield kit for 4" height Panduit wiring duct; two 3' sections, bonding clips, and anti-oxidizing paste.	1
SDCLIP	Noise shield replacement bonding clips – 2 clips.	1

Panduct® Type F Narrow Slot Wiring Duct

Narrow slot/finger design provides more slots to fit the spacing of high-density terminal blocks and other hardware.
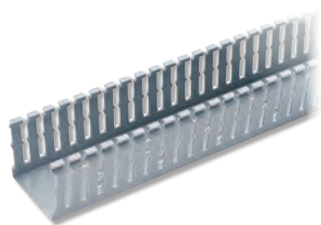
Part Number	Duct Size (W x H)		Slot Width		Cover Part Number	Std. Pkg. Qty.	Base Ctn. Qty.	Cover Ctn. Qty.
	In.	mm	In.	mm				
F1X2LG6	1.25 x 2.12	32.0 x 53.8	0.20	5.0	C1LG6	6	120	120
F1X3LG6	1.25 x 3.13	32.0 x 79.4	0.20	5.0	C1LG6	6	120	120
F1X4LG6	1.25 x 4.10	32.0 x 104.1	0.20	5.0	C1LG6	6	60	120
F2X2LG6	2.25 x 2.12	57.2 x 53.8	0.20	5.0	C2LG6	6	120	120
F2X3LG6	2.25 X 3.14	57.2 X 79.8	0.20	5.0	C2LG6	6	60	120
F2X4LG6	2.25 X 4.10	57.2 X 104.1	0.20	5.0	C2LG6	6	60	120
F3X3LG6	3.25 X 3.13	82.6 X 78.7	0.20	5.0	C3LG6	6	60	120
F3X4LG6	3.25 X 4.10	82.6 X 104.1	0.20	5.0	C3LG6	6	60	120
F4X4LG6	3.25 X 5.10	82.6 X 129.5	0.20	5.0	C3LG6	6	60	120

Panduct® Installation Tools

Easily install Panduct® Products with the bench mount or hand-held duct cutting tool.

PBDCT **DCT**

DNT-100 **TNR**

Part Number	Part Description	Std. Pkg. Qty.
PBDCT*	Panduit bench-mount duct cutting tool. Cuts slotted wiring ducts and wiring duct covers with up to 6" width and up to 5" height. Full 78.74" (2 meter) measuring scale. Includes safety guarding.	1
DCT	Hand-held duct cutting tool.	1
DNT-100	Hand-held sidewall notching tool.	1
TNR	Hand-held nylon rivet installation tool.	1

*If ordering PBDCT outside the U.S., these part numbers must both be ordered: PBDCT-B and PBDCT-M.

Productivity

Panduit has never stopped improving, advancing or reinventing its products to meet modern challenges. We are committed to providing manufacturers with the keys to efficient and effective productivity. Panduit products tap into a 60-year legacy of knowledge, experience, and innovation to provide high quality tools and products that allow designers and builders to be more competitive, more productive, more flexible and, more profitable.

Cable Ties

Fasten, bundle, clamp and manage wiring with cable ties and tools designed to speed installation and improve operator safety.

Part Number	Description	Std. Pkg. Qty.
PLT1M-C	Pan-Ty® Locking Tie, Miniature cross section, 3.9" (99mm) length, nylon 6.6, Natural.	100 Pcs.
PLT2M-C	Pan-Ty® Locking Tie, Miniature cross section, 8.0" (203mm) length, nylon 6.6, Natural.	100 Pcs.
PLA2S-A-C	Combination adhesive mount/cable tie; White; mounting base 1.0" x 0.9" (25mm x23mm); nylon 6.6.	100 Pcs.
PLT2S-C	Pan-Ty® Locking Tie, Standard cross section, 7.4" (188mm) length, nylon 6.6, Natural.	100 Pcs.
PLM1M-C	Pan-Ty® Marker Tie, wrap, Miniature cross section, 3.9" (99mm) length, 0.26" x 0.95" (6.6 x 24.1mm) marker write-on area, nylon 6.6, Natural.	100 Pcs.
GTS-E	Ergonomic cable tie hand tool; installs Subminiature, Miniature, Intermediate, Standard cable tie cross sections; material: impact resistant resin.	1 Pc.

Representative list only. Please visit www.panduit.com for full offering.

Cable Accessories

Route and secure control panel wiring quickly and reliably with mounting devices.

Part Number	Description	Std. Pkg. Qty.
ABM1M-A-C	4-way adhesive backed cable tie mount; 0.50" x 0.50" (12.7mm x 12.7mm); nylon 6.6. Natural.	100 Pcs.
ABMM-A-C	4-way adhesive backed cable tie mount; 0.75" x 0.75" (19.1mm x 19.1mm); ABS. Natural.	100 Pcs.
ABMM-AT-C0	4-way adhesive backed cable tie mount; 0.75" x 0.75" (19.1mm x 19.1mm); weather-resistant ABS. Black.	100 Pcs.
ABM100-A-C	4-way adhesive backed cable tie mount; 1" x 1" (25.4mm x 25.4mm); nylon 6.6. Natural.	100 Pcs.
ABM100-AT-C0	4-way acrylic adhesive backed cable tie mount; 1" x 1" (25.4mm x 25.4mm); nylon 6.6. Black.	100 Pcs.
ABM112-A-C	4-way adhesive backed cable tie mount; 1.12" x 1.12" (28.5mm x 28.5mm); nylon 6.6. Natural.	100 Pcs.
ABM112-AT-C0	4-way acrylic adhesive backed cable tie mount; 1.12" x 1.12" (28.5mm x 28.5mm); nylon 6.6. Black.	100 Pcs.
ABM3H-A-L	4-way adhesive backed cable tie mount; 1.5" x 1.5" (38.1mm x 38.1mm); nylon 6.6. Natural.	50 Pcs.
ABM4H-A-L	4-way adhesive backed cable tie mount; 2.0" x 2.0" (50.8mm x 50.8mm); nylon 6.6. Natural.	50 Pcs.

Representative list only. Please visit www.panduit.com for full offering.

Dynamic Cable Manager

The Panduit dynamic cable manager provides a reliable and cost-effective method for 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.
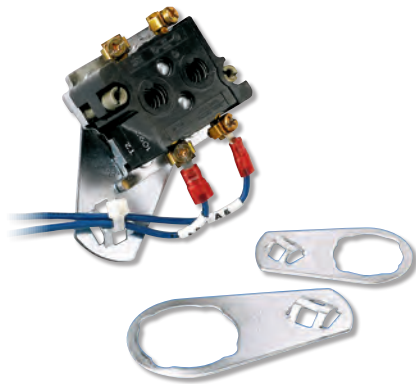
Part Number	Part Description	Std. Pkg. Qty.
ABDCM30-A-C	Dynamic cable manager for panel strain relief, 1.12" x 1.12" (28.4mm x 28.4mm), nylon 6.6, White.	100 Pcs.

Representative list only. Please visit www.panduit.com for full offering.

Control Panel Mounts

Panduit control panel mounts are designed to provide termination strain relief. These mounts are intended for installation behind a control panel switch and are available in two sizes to fit most control panel switch designs.

Part Number	Part Description	Std. Pkg. Qty.
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.	100 Pcs.
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 large adhesive surface area of the ABMQ provides a secure mounting method for up to four cable bundles. The dovetail feature allows multiple mounts to be aligned, providing more cable routing capabilities for complex control panel systems.
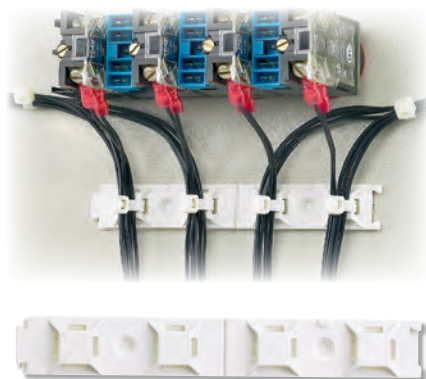
Part Number	Part Description	Std. Pkg. Qty.
ABMQS-A-C	4-way adhesive backed multiple bridge cable tie mount, ABS, used with Miniature, Intermediate and Standard cable ties. White.	100 Pcs.

Representative list only. Please visit www.panduit.com for full offering.

Productivity

Terminals

Panduit terminals are designed and manufactured for fast assembly and reliable performance. Panduit provides an extensive line of tooling designed specifically to provide optimum performance.

Part Number	Description	Std. Pkg. Qty.
BSN14-C	Butt splice; 16 – 14 AWG; nylon insulated.	100 Pcs.
BSN18-C	Butt splice; 22 – 18 AWG; nylon insulated.	100 Pcs.
BSV10X-Q	Butt splice; 12 – 10 AWG, vinyl insulated.	25 Pcs.
DNF14-250FIB-C	Female disconnect; 16 – 14 AWG, 0.250 x 0.032 tab size, nylon fully insulated, funnel entry.	100 Pcs.
DNF14-250FIB-M	Female disconnect; 16 – 14 AWG, 0.250 x 0.032 tab size, nylon fully insulated, funnel entry.	1000 Pcs.
DNF18-250FIB-M	Female disconnect; 22 – 18 AWG, 0.250 x 0 .032 tab size, nylon fully insulated, funnel entry.	1000 Pcs.
PN10-10R-D	Ring terminal; 12 – 10 AWG; stud size #10 nylon insulated.	500 Pcs.
PN14-10R-M	Ring terminal; 18 – 14 AWG; stud size #10 nylon insulated.	1000 Pcs.
PNF10-10R-D	Ring terminal; 12 – 10 AWG; stud size #10 nylon insulated.	500 Pcs.
PV10-10F-L	Fork terminal, 12 – 10 AWG, #10 stud size, vinyl insulated, funnel entry.	50 Pcs.
PV10-10R-L	Locking fork terminal, 18- 14 AWG, #10 stud size, vinyl insulated, funnel entry.	100 Pcs.
PV10-14R-L	Ring terminal; 12 – 10 AWG; stud size 1/4", vinyl insulated, funnel entry.	50 Pcs.
PV14-10R-M	Ring terminal; 16 – 14 AWG; stud size #10, vinyl insulated, funnel entry.	1000 Pcs.
CT-1550	Crimps most Pan-Term® #22 – 10 AWG Nylon and Vinyl Insulated Terminals, Splices, and Disconnects. The CT-1550 has the Red/Blue pocket closest to the pivot which provides a reduced crimp effort for those who make Red/Blue terminations.	1

Representative list only. Please visit www.panduit.com for full offering.

Ferrules

Panduit ferrule end sleeves terminate stranded wire into terminal blocks with superior termination performance. A wide assortment of ferrule styles and tool designs provide a proven way to make reliable connections. Meet UL486F, CSA-C22.2, and DIN standards. Automated solutions also available for high-volume applications.

Part Number	Description	Std. Pkg. Qty.
F78-8-M	Ferrule, non-insulated, 16 AWG (1.5mm²) wire range, 0.31(8.0mm) length.	1000 Pcs.
FSD74-8-D	Single wire DIN end sleeve insulated ferrule; Turquoise funnel entry; AWG #24 – 22 (0.34 mm²); 0.49 (12.5 mm) length.	500 Pcs.
FSD75-8-D	Single wire DIN end sleeve insulated ferrule; White funnel entry; AWG #22 – 20 (0.5 mm²); 0.53 (13.5 mm) length.	500 Pcs.
FSD76-8-D	Single wire DIN end sleeve insulated ferrule; Gray funnel entry; AWG #18 (0.75 mm2); 0.55 (14 mm) length.	500 Pcs.
FSD77-8-D	Single wire DIN end sleeve insulated ferrule; Red funnel entry; 1.00 mm²; 0.57 (14.5 mm) length.	500 Pcs.
FSD78-8-D	Single wire DIN end sleeve insulated ferrule; Black funnel entry; AWG #16 (1.5 mm²); 0.57 (14.5 mm) length.	500 Pcs.
FTD80-10-TL	Twin wire DIN end sleeve insulated ferrule: Blue funnel entry, 14 AWG (2.5mm²), 0.39 (10.0mm) pin length.	250 Pcs.
CT-1170	Controlled cycle ferrule crimp tool with square profile for 28 – 5 AWG (0,08 – 16 mm²) insulated and non-insulated single wire ferrules and 23 – 10 AWG (2 x 0.25mm² – 2x 6mm²) insulated twin ferrules.	1 Pc.

Representative list only. Please visit www.panduit.com for full offering.

Military Grade Two-Sided Heat Shrink Labels

Permanent, one-piece, heat shrink sleeve designed to provide clear, durable identification of wires and cables. Print using Easy-Mark Plus™ Labeling Software and TDP43ME thermal transfer desktop printer on pages 15 – 16.

Part Number	Description	Std. Pkg. Qty.
H200X025H1T-2	2-sided Military Grade printable heat shrink label, White, 1/8" (3.1 mm) diameter polyolefin. 500 labels per roll.	1 Roll
H200X034H1T-2	2-sided MilitaryGrade printable heat shrink label, White, 3/16" (4.7mm) diameter polyolefin. 500 labels per roll.	1 Roll
H200X044H1T-2	2-sided Military Grade printable heat shrink label, White, 1/4" (6.3 mm) diameter polyolefin. 500 labels per roll.	1 Roll
H200X064H1T-2	2-sided Military Grade printable heat shrink label, White, 3/8" (9.7mm) diameter polyolefin. 500 labels per roll.	1 Roll
H200X084H1T-2	2-sided Military Grade printable heat shrink label, White, 1/2" (12.7mm) diameter polyolefin. 500 labels per roll.	1 Roll
H200X122H1T-2	2-sided Military Grade printable heat shrink label, White, 3/4" (19.1mm) diameter polyolefin. 250 labels per roll.	1 Roll
H200X165H1T-2	2-sided Military Grade printable heat shrink label, White, 1" (25.4 mm) diameter polyolefin. 250 labels per roll.	1 Roll

Representative list only. Please visit www.panduit.com for full offering.

Vinyl Self-Laminating Labels

Includes a colored print-on area and clear over-laminate to protect the legend for clear and durable identification. Print using Easy-Mark Plus™ Labeling Software and TDP43ME thermal transfer desktop printer on pages 15 – 16.

Part Number	Part Description	Std. Pkg. Qty.
S100X075VATY	Thermal Transfer, Vinyl, 1.00" W x 0.75" H, 0.25" POA, Clear/White, 3" Core, 18 – 14 AWG wire/cable.	5000 Pcs.
S100X125VATY	Thermal Transfer, Vinyl, 1.00" W x 1.25" H, 0.38" POA, Clear/White, 3" Core, 12 – 10 AWG wire/cable.	5000 Pcs.
S100X150VATY	Thermal Transfer, Vinyl, 1.00" W x 1.50" H, 0.50" POA, Clear/White, 3" Core, 10 – 6 AWG wire/cable.	5000 Pcs.
S100X225VATY	Thermal Transfer, Vinyl, 1.00" W x 2.25" H, 0.75" POA, Clear/White, 3" Core, 8 – 4 AWG wire/cable.	5000 Pcs.
S100X400VATY	Thermal Transfer, Vinyl, 1.00" W x 4.00" H, 1.00" POA, Clear/White, 3" Core, 2 – 1 AWG wire/cable.	2500 Pcs.
S100X650VATY	Thermal Transfer, Vinyl, 1.00" W x 6.50" H, 1.50" POA, Clear/White, 3" Core, 1/0 – 250 MCM wire/cable.	1000 Pcs.

Representative list only. Please visit www.panduit.com for full offering.

Turn-Tell® Labels

Innovative label design allows labels to rotate for visibility from any angle, and for repositioning on the wire/cable to align legends and improve aesthetics. Print using Easy-Mark Plus™ Labeling Software and TDP43ME thermal transfer desktop printer on pages 15 – 16.
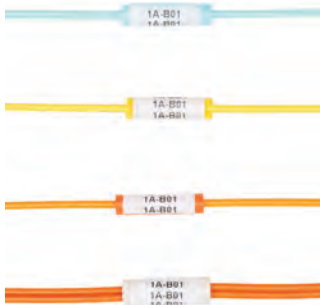
Part Number	Part Description	Std. Pkg. Qty.
R100X075V1T	Thermal transfer, vinyl, 1.00" W x 0.75" H, 0.25" POA, Clear/White, 3" Core, 18 – 14 AWG wire/cable.	2500 Pcs.
R100X125V1T	Thermal transfer, vinyl, 1.00" W x 1.25" H, 0.38" POA, Clear/White, 3" Core, 12 – 10 AWG wire/cable.	2500 Pcs.
R100X150V1T	Thermal transfer, vinyl, 1.00" W x 1.50" H, 0.50" POA, Clear/White, 3" Core, CAT 5e wire/cable.	2500 Pcs.
R100X225V1T	Thermal transfer, vinyl, 1.00" W x 2.25" H, 0.75" POA, Clear/White, 3" Core, CAT 6 wire/cable.	2500 Pcs.
R100X400V1T	Thermal transfer, vinyl, 1.00" W x 4.00" H, 1.00" POA, Clear/White, 3" Core, 2 – 1 AWG wire/cable.	1000 Pcs.

Representative list only. Please visit www.panduit.com for full offering.

LabelCore™ Fiber Optic Cable Identification System

Provides a larger surface on small fiber cables and allows legends to be clearly seen.

Part Number	Part Description	Std. Pkg. Qty.
NWSLC-2Y	Yellow cable identificaiton sleeve for 2mm simplex fiber cable, 1" long: Use with labels S100X160YAJ or S100X150YAJ (laser/inkjet), S100X160VAC or S100X150VAC (LS8E hand-held printer), S100X150VA1Y or S100X150VATY (thermal transfer printer).	100 Pcs.
NWSLC-2Y-AQ	Aqua cable identificaiton sleeve for 2mm simplex fiber cable, 1" long: Use with labels S100X160YAJ or S100X150YAJ (laser/inkjet), S100X160VAC or S100X150VAC (LS8E hand-held printer), S100X150VA1Y or S100X150VATY (thermal transfer printer).	100 Pcs.
NWSLC-3Y	Orange cable identificaiton sleeve for 2mm simplex fiber cable, 1" long: Use with labels S100X160YAJ or S100X150YAJ (laser/inkjet), S100X160VAC or S100X150VAC (LS8E hand-held printer), S100X150VA1Y or S100X150VATY (thermal transfer printer).	100 Pcs.
NWSLC-7Y	White cable identification sleeve for 3mm duplex cable, 1" long: Use with labels S100X225YAJ (laser/inkjet), S100X225VAC (LS8E handheld printer), and S100X225VA1Y or S100X225VATY (thermal transfer printer).	100 Pcs.

Representative list only. Please visit www.panduit.com for full offering.

Standard Marker Plates

Non-adhesive and halogen-free; used to identify wires, cables, equipment, and many other applications.

Part Number	Description	Std. Pkg. Qty.
M200X050Y6T	Yellow, thermal transfer marker plate, 2.00" x 0.50". 500 labels per roll.	1 Roll
M200X050Y7T	White, thermal transfer marker plate, 2.00" x 0.50". 500 labels per roll.	1 Roll
M200X100Y6T	Yellow, thermal transfer marker plate, 2.00" x 1.00". 500 labels per roll.	1 Roll
M200X100Y7T	White, thermal transfer marker plate, 2.00" x 1.00". 500 labels per roll.	1 Roll
M300X050Y6T	Yellow, thermal transfer marker plate, 3.00" x 0.50". 500 labels per roll.	1 Roll
M300X050Y7T	White, thermal transfer marker plate, 3.00" x 0.50". 500 labels per roll.	1 Roll
M300X100Y6T	Yellow, thermal transfer marker plate, 3.00" x 1.00". 500 labels per roll.	1 Roll
M300X100Y7T	White, thermal transfer marker plate, 3.00" x 1.00". 500 labels per roll.	1 Roll

Representative list only. Please visit www.panduit.com for full offering.

Terminal Block Markers

Flexible marker design; create and install single or multiple markers in a single step. Less marker waste - print only as many as you need. Print using Easy-Mark Plus™ Labeling Software and TDP43ME thermal transfer desktop printer on pages 15 – 16.

Part Number	Description	Std. Pkg. Qty.
TB05X12EWT-AB1	Flexible terminal block markers on continuous rolls, 5mm x 12mm, White. Compatible with Allen-Bradley 1492-J3 and 1492-W3 terminal blocks and Weidmuller WDU 2.5 terminal blocks. 1000 labels per roll.	1 Roll
TB06X12EWT-AB1	Flexible terminal block markers on continuous rolls, 6mm x 12mm, White. Compatible with Allen-Bradley 1492-J4 and 1492-W4 terminal blocks and Weidmuller WDU4 terminal blocks. 1000 labels per roll.	1 Roll
TB08X12EWT-AB1	Flexible terminal block markers on continuous rolls, 8mm x 12mm, White. Compatible with Allen-Bradley 1492-J6 terminal blocks and Weidmuller WDU6 terminal blocks. 1000 labels per roll.	1 Roll
TB05X08EWT-AB2	Flexible terminal block markers on continuous rolls, 5mm x 8mm, White. Compatible with Allen-Bradley 1492-JD3/1492-L3/1492-LD3/1492-L3Q terminal blocks and Weidmuller WDR2.5 terminal blocks. 1000 labels per roll.	1 Roll
TB06X08EWT-AB2	Flexible terminal block markers on continuous rolls, 6mm x 8mm, White. Compatible with Allen-Bradley 1492-JD4/1492-L4/1492-LD4 terminal blocks and Weidmuller WDR4 terminal blocks. 1000 labels per roll.	1 Roll

Representative list only. Please visit www.panduit.com for full offering.

Productivity

Raised Panel Labels   IP69K

Raised thermal transfer printable surface with high-tack adhesive for strong holding power on rough, textured, painted, and powder coated surface areas. Print using Easy-Mark Plus™ Labeling Software and TDP43ME thermal transfer desktop printer on pages 15 – 16.

Part Number	Description	Std. Pkg. Qty.
C120X190APT-22	Thermal transfer raised panel push button label, 1.20"W x 1.90" H, 22mm hole, raised panel, White.	500 Pcs.
C100X050APT	Thermal transfer raised panel component label, 1.00" W x 0.50" H, raised panel, White.	500 Pcs.
C180X180APT-30	Thermal transfer raised panel push button label, 1.80"W x 1.80"H, 30mm hole, raised panel, White.	500 Pcs.
C180X130APT-30H	Thermal transfer raised panel half push button label, 1.80"W x 1.30"H, 30mm hole, raised panel, White.	500 Pcs.

Representative list only. Please visit www.panduit.com for full offering.

Super-Tack Polyester Labels   IP69K

Super-Tack Polyester labels are used on rough textured, painted, and coated surface areas. Print using Easy-Mark Plus™ Labeling Software and TDP43ME thermal transfer desktop printer on pages 15 – 16.

Part Number	Description	Std. Pkg. Qty.
C100X050YPT	Thermal transfer component label, 1.00" W x 0.50" H, super-tack polyester, White.	10000 Pcs.
C200X100YPT	Thermal transfer component label, 2.00" W x 1.00" H, super-tack polyester, White.	2500 Pcs.
C275X125YPT	Thermal transfer component label, 2.75" W x 1.25" H, super-tack polyester, White.	2500 Pcs.
C300X200YPT	Thermal transfer component label, 3.00" W x 2.00" H, super-tack polyester, White.	2500 Pcs.
C400X300YPT	Thermal transfer component label, 4.00" W x 3.00" H, super-tack polyester, White.	2500 Pcs.

Representative list only. Please visit www.panduit.com for full offering.

Easy-Mark Plus™ Labeling Software

- Powerful, easy-to-use, and affordable software that provides innovative features and functionality to address unique labeling needs
- Quickly create simple or complex labels with text boxes, lines, frames, or tables, and other useful tools
- Design detailed labels with multiple zones and objects for applications such as rating plates, arc flash labels and fiber optic enclosures
- Simple user interface shows labels on the screen as they will be printed
- Create and print labels using QR codes, or any of the other 21 included barcode symbologies
- Free demo version available at http://www.panduit.com/emp

System Requirements:
- 300 MB hard drive space and 2 GB Memory
- Windows XP, Vista, 7, 8, 8.1, or 10^
- 32 or 64 bit operating systems
- Microsoft.NET Framework 2.0 or higher
- Mouse or compatible pointing device
- Keyboard
- Optical Disc Drive or USB Port

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
EMPLUS-CD	Easy-Mark Plus™ Labeling Software, CD-ROM.	1	10
EMPLUS-DL	Easy-Mark Plus™ Labeling Software, online download.	1	10
EMPLUS-2GO	Easy-Mark Plus™ Portable Application, USB flash drive.	1	10
EMPLUS-SERVER	Easy-Mark Plus™ Labeling Software, networkable server based version.	1	10

^WINDOWS is a registered trademark of Microsoft Corporation in the United States and/or other countries.

Productivity

TDP43ME Thermal Transfer Desktop Printer and Accessories

- Creates durable, crisp, clear legends and graphics that offer superior legibility
- Prints durable legends for harsh industrial environments
- Fine resolution for small type characters and images
- Easy-Mark™ Labeling Software included with printer
- Up to 4 inches per second print speed
- Auto-sensing label gap and black mark sensors

- One-button operation, and automatic self test
- Connects quickly and easily to PC, and offers connectivity flexibility to print by USB, parallel, serial, or Ethernet
- Easy ribbon loading reduces printer down time
- Able to connect to a network for sharing capability
- UL60950 listed, File #E165747

Part Number	Part Description	Std. Pkg. Qty.
TDP43ME	300 dpi printer; includes printer, Panduit® Easy-Mark Plus™ Labeling Software, RMEH4BL Black hybrid ribbon, AC power adapter with US power cord, USB cable, user manual, quick start card, and driver disk; for use in North America.	1
TDP43ME-KIT	TDP43ME printer kit. Includes: printer, Panduit® Easy-Mark Plus™ Labeling Software, RMEH4BL Black hybrid ribbon, AC power adapter with US power cord, USB cable, user manual, quick start card, TDP43ME-RS roll stand, TDP43ME-CASE, one roll of S100X150VATY labels, and driver disk; for use in North America.	1
TDP43ME-CASE	Hardside carrying case accommodates printer, AC power adapter, ribbons, printer cable, external roll stand, labels, and tools.	1
TDP43ME-CUTTER	Optional power/automatic cutter for TDP43ME thermal transfer desktop printer; easy to install for automatic cutting of labels.	1
TDP43ME-RS	External label roll stand for TDP43ME printer; used to rear feed labels that are supplied on 3" cores.	1

TDP43ME Desktop Printer Ribbons

Part Number	Part Description	Width In.	Width mm	Length Ft.	Length m	Std. Pkg. Qty.
RMER1BL	Black resin thermal transfer ribbon. Use with terminal block markers.	1.1	27.9			1
RMEH4BL	Black hybrid thermal transfer ribbon. Use with heat shrink, self-laminating, Turn-Tell® Labels, tan polyimide, and vinyl cloth labels.					1
RMER4BL	Black resin thermal transfer ribbon. Use with polyester labels, continuous vinyl tape, marker plates, and raised panel labels.	4.25	108.0	300.0	91.4	1
RMER4BL-A	Black resin thermal transfer ribbon. Use with high-temperature marker plates.					1
RMER4BL-C	Black resin thermal transfer ribbon. Use with fluid-resistant heat shrink labels and white polymide labels.					1

Representative list only. Please visit www.panduit.com for full offering.

Safety and Security

Panduit has developed a wide range of solutions designed to protect workers against mechanical, electrical and hazardous situations as well as products that provide multiple layers of security that work together to protect equipment. Facility identification and safety products reduce the risk to workers and businesses through greater awareness and communication of workplace hazards and assist with effective compliance with OSHA safety regulations. The unique designs of the block-out and lock-in devices ensure the safety and security of the network infrastructure.

VeriSafe™ – Absence of Voltage Tester (AVT)

The patent-pending VeriSafe™ Absence of Voltage Tester from Panduit automates the voltage verification process, providing a new and innovative way to safely, reliably, and efficiently verify the absence of voltage before accessing potentially dangerous electrical equipment.

Part Number	Description	Std. Pkg. Qty.
Absence of Voltage Tester		
VS-AVT-C02-L03	VeriSafe™ Absence of Voltage Tester with 2 ft. system cable, 3 ft. sensor leads.	1
VS-AVT-C08-L10	VeriSafe™ Absence of Voltage Tester with 8 ft. system cable, 10 ft. sensor leads.	1
Accessories		
VS-AVT-CABLE-02	VeriSafe™ Replacement Cable, 2 ft.	1
VS-AVT-CABLE-08	VeriSafe™ Replacement Cable, 8 ft.	1
Sensor Lead Connection Kits		
VS-CKBB8-4	VeriSafe™ Connection Kit for tapping 8 to 4 AWG conductors.	1
VS-CKBB6-2	VeriSafe™ Connection Kit for tapping 6 to 2 AWG conductors.	1
VS-CKBB2-00	VeriSafe™ Connection Kit for tapping 2 to 2/0 AWG conductors.	1
Equipment Retrofit Kits		
VS-AVT-RKBB2	Complete kit to retrofit equipment with VeriSafe™ Absence of Voltage Tester. Includes AVT device with 10 ft. sensor cable. Connection kit 8 – 4 AWG power connectors, 12 cable ties, 6 cable tie mounts, 1 wire marker.	1
VS-AVT-RKBB3	Complete kit to retrofit equipment with VeriSafe™ Absence of Voltage Tester. Includes AVT device with 10 ft. sensor cable. Connection Kit 6 – 2 AWG power connectors, 12 cable ties, 6 cable tie mounts, 1 wire marker.	1
VS-AVT-RKBB4	Complete kit to retrofit equipment with VeriSafe™ Absence of Voltage Tester. Includes AVT device with 10 ft. sensor cable. Connection kit 2 – 2/0 AWG power connectors, 12 cable ties, 6 cable tie mounts, 1 wire marker.	1

Standards

|	
UL 1436	Standard for outlet circuit testers and similar indicating devices
CAN/CSA-C22.2 No. 160	Voltage and polarity testers
IEC / UL / CSA 22.2 No. 61010-1	Safety requirements for electrical equipment for measurement, control, and laboratory use – Part 1: General Requirements
IEC / UL / CSA 22.2 No. 61010-2-030	Safety requirements for electrical equipment for measurement, control, and laboratory use – Part 2-030: Particular requirements fo testing and measuring circuits
UL 508 & CSA-C22.2 No 14	Industrial control equipment
IEC 61508-1, -2, and -3 {SIL 3 Rating}	Safety of electrical/electronic programmable electronic safety-related security systems – Part 1 General Requirements Part 2 Requirements for Electrical/electronic/Programmable Safety Related Systems Part 3 Software Requirements
FCC – CRF 47 Part 15 Subpart B	Radio frequency devices
IEC 61326-1, -3-1, -1-1: corr1 EN 61326-1, -3-1	Electrical equipment for measurement, control and laboratory use – EMC requirements – Part 1 Part 3-1: Immunity requirements for safety-related systems and for equipment intended to perform safety-related functions (functional safety) – General industrial applications including corrigendum 1.
EN 55011, CISPR 11	Industrial, scientific and medical equipment – Radio-frequency disturbance characteristics – Limits and methods of measurment.
IEC / EN61000-3-2 IEC / EN61000-3-3	Electromagnetic compatibility (EMC) – Part 3-2: Limits – Limits for harmonic current emissions (equipment input current ≤ 16A per phase)
EN 61000-6-2	Electromagnetic compatibility (EMC) – Part 6-2: Generic standards – Immunity for industrial environments
AS/NZS CISPR 11	Australian/New Zealand Standard – Industrial, scientific and medical equipment – Radio-frequency disturbance characteristics – Limits and methods of measurement
CAN – ICES-001	Industrial, Scientific and Medical (ISM) radio frequency generators
CE	Conformity Marking for European Economic Area
RoHS	Restriction of Hazardous Substances

*Degree of protection specified is related to the Indictor Module only. To meet the TYPE (UL, NEMA and CSA) 1, 12, 4, or 4X requirements, mount on a flat surface off an enclosure meeting the appropriate UL TYPE or NEMA rating. Verify that the seal and o-rings are clean to ensure proper sealing.

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.

Insulated
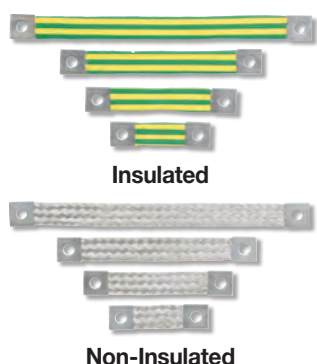
Non-Insulated

Part Number	Description	Std. Pkg. Qty.
BS100445	Braided bonding strap, one-hole, insulated, 4.00" length x 1.06" width (101.6mm x 27.0mm).	1
BS100645	Braided bonding Strap, one-hole, insulated, 6.00" length x 1.06" width (152.4mm x 27.0mm).	1
BS100845	Braided bonding strap, one-hole, insulated, 8.00" length x 1.06" width (203.2mm x 27.0mm).	1
BS101245	Braided bonding strap, one-hole, insulated, 12.00" length x 1.06" width (304.8mm x 27.0mm).	1
BS100445U	Braided bonding strap, one-hole, non-insulated, 4.00" length x 1.06" width (101.6mm x 27.0mm).	1
BS100645U	Braided bonding strap, one-hole, non-insulated, 6.00" length x 1.06" width (152.4mm x 27.0mm).	1
BS100845U	Braided bonding strap, one-hole, non-insulated, 8.00" length x 1.06" width (203.2mm x 27.0mm).	1
BS101245U	Braided bonding strap, one-hole, non-insulated, 12.00" length x 1.06" width (304.8mm x 27.0mm).	1

Representative list only. Please visit www.panduit.com for full offering.

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	Std. Pkg. Qty.
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.	1
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.	1
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.	1
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.	1
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.	1

Representative list only. Please visit www.panduit.com for full offering.

Power Circuit Wiring Components

The mechanical lugs are made from high conductivity electrolytic copper. UL listed for use in the U.S. and Canada. The 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	Std. Pkg. Qty.
CCB4/0-1AR-Q	One-hole, copper mechanical connector, anti-rotation lug, #2 AWG – 4/0 AWG STR.	25 Pcs.
NBA350-12	Neutral bar, assembly, 12-port, al., tin-plated,14 – 6 AWG, with connector 350 – 6 AWG.	1
CXS125-14-Q	One-hole, copper, single barrel, straight fixed tongue lug, #4 – 1/0 AWG, 1/4" (6.4mm) stud hole.	25 Pcs.
CXS35-36-C	One-hole, copper, single barrel, straight fixed tongue lug, #14 – #6 AWG, 3/16" (4.8mm) stud hole.	100 Pcs.
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.	1

Representative list only. Please visit www.panduit.com for full offering.

Armored Cable Grounding Kits

The armored cable grounding kit provides a secure bond to the armor sheath on indoor and indoor/outdoor fiber optic cables at both cassette and enclosure ends.

Part Number	Part Description	Std. Pkg. Qty.
ACG24K	#6 AWG(16mm²) jumper for armored cable diameter up to 0.84" (21.3mm); 24" (609.6mm) length; factory terminated on one end with LCC6 two-hole copper compression lug and the other end with grounding terminal; provided with two each #12-24 and M6 thread-forming screws and a Black polypropylene terminal cover.	1
ACG24K-500	#6 AWG(16mm²) jumper for armored cable diameter 0.85" (21.3mm) to 1.03" (26.2mm); 24" (609.6mm) length; factory terminated on one end with LCC6 two-hole copper compression lug and the other end with grounding terminal; provided with two each #12-24 and M6 thread-forming screws and a Black polypropylene terminal cover.	1
ACGK	Armored cable grounding kit with one grounding terminal for #6 AWG and one #10 mechanical clamp, 9/16" – 1 1/16" diameter range.	1
ACG24KX-500	#6 AWG(16mm²) jumper for armored cable diameter 0.94" (23.9mm) to 1.5" (38.1mm); 24" (609.6mm) length; factory terminated on one end with LCC6 two-hole copper compression lug and the other end with grounding terminal; provided with two each #12-24 and M6 thread-forming screws and a Black polypropylene terminal cover.	1
ACGKX	Armored cable grounding kit w ith one grounding terminal for #6 AWG and one #16 mechanical clamp, 15/16" – 1 1/2" diameter range.	1

Representative list only. Please visit www.panduit.com for full offering.

Adhesive Lined Grommet Edging Ⓤ®

Grommet edging protects and prevents wires and cables from chafing against sharp edges of panel walls and knockouts. Pressure sensitive adhesive provides an easy, clean, and secure application.

Part Number	Description	Std. Pkg. Qty.
GEE62F-A-C	Slotted grommet edging with adhesive, 0.036" – 0.062" panel thickness, polyethylene, Natural. 100 feet per roll.	1 Roll
GEE99F-A-C	Slotted grommet edging with adhesive, 0.062" – 0.099" panel thickness, polyethylene, Natural. 100 feet per roll.	1 Roll
GEE144F-A-C	Slotted grommet edging with adhesive, 0.099" – 0.144" panel thickness, polyethylene, Natural. 100 feet per roll.	1 Roll
GES62F-A-C	Solid grommet edging with adhesive lined (use one straight edges only), 0.036" – 0.062" panel thickness, polyethylene, Natural. 100 feet per roll.	1 Roll
GES99F-A-C	Solid grommet edging with adhesive lined (use one straight edges only), 0.062" – 0.099" panel thickness, polyethylene, Natural. 100 feet per roll.	1 Roll
GES144F-A-C	Solid grommet edging with adhesive lined (use one straight edges only), 0.099" – 0.144" panel thickness, polyethylene, Natural. 100 feet per roll.	1 Roll

Representative list only. Please visit www.panduit.com for full offering.

Spiral Wrap Ⓤ®

Spiral wrap bundles and protects wire, cable, hoses, and tubing while providing the largest variety of colors, materials, and sizes to meet a variety of needs.

Part Number	Description	Std. Pkg. Qty.
T25F-C	Spiral wrap, offers abrasion protection for wires, cables, hoses and tubing, 0.25" (6.3mm) x 100', polyethylene, Natural. 100 feet per roll.	1 Roll
T38F-C	Spiral wrap, offers abrasion protection for wires, cables, hoses and tubing, 0.38" (9.7mm) x 100', polyethylene, Natural. 100 feet per roll.	1 Roll
T50F-C	Spiral wrap, offers abrasion protection for wires, cables, hoses and tubing, 0.50" (12.7mm) x 100', polyethylene, Natural. 100 feet per roll.	1 Roll
T100F-C	Spiral wrap, offers abrasion protection for wires, cables, hoses and tubing, 1.00" (25.4mm) x 100', polyethylene, Natural. 100 feet per roll.	1 Roll
T50FR-C20Y	Spiral Wrap, offers abrasion protection for wires, cables, hoses and tubing, 0.50" (12.7mm) x 100', flame retardant polyethylene, Black. 100 feet per roll.	1 Roll
T100FR-C20Y	Spiral Wrap, offers abrasion protection for wires, cables, hoses and tubing, 1" (25.4mm) x 100', flame retardant polyethylene, Black. 100 feet per roll.	1 Roll

Representative list only. Please visit www.panduit.com for full offering.

Pan-Wrap™ Split Harness Wrap Ⓤ

Pan-Wrap™ Split Harness Wrap features a patented slot pattern to improve flexibility and abrasion protection.

Part Number	Description	Std. Pkg. Qty.
PW50F-T20	Pan-Wrap™ Split Harness Wrap, 0.50" (12.7mm), 200 ft. (61m) per reel, polyethylene, Black. 200 feet per roll.	1 Roll
PW75F-C20	Pan-Wrap™ Split Harness Wrap, 0.75" (19.1mm), 100 ft. (30m) per reel, polyethylene, Black. 100 feet per roll.	1 Roll
PW100F-C20	Pan-Wrap™ Split Harness Wrap Split, 1" (25.4mm), 100 ft. (30.5m) per reel, polyethylene, Black. 100 feet per roll.	1 Roll
PW75FR-C20Y	Pan-Wrap™ Split Harness Wrap, 0.75" (19.1mm), 100 ft. (30m) per reel, flame retardant polyethylene, Black. 100 feet per roll.	1 Roll
PW100FR-C20Y	Pan-Wrap™ Split Harness Wrap, 1" (25.4mm), 100 ft. (30.5m) per reel, flame retardant polyethylene, Black. 100 feet per roll.	1 Roll
PW150FR-L20Y	Pan-Wrap™ Split Harness Wrap, 1.5" (38.1mm), 50 ft. (15m) per reel, flame retardant polyethylene, Black. 50 feet per roll.	1 Roll
PWT50	Pan-Wrap™ Installation Tool; 1/2".	1
PWT75	Pan-Wrap™ Installation Tool; 3/4".	1
PWT100	Pan-Wrap™ Installation Tool; 1".	1
PWT150	Pan-Wrap™ Installation Tool; 1 1/2".	1

Representative list only. Please visit www.panduit.com for full offering.

Arc Flash Super-Tack Polyester Labels Ⓤ cⓊ IP69K

Panduit Arc Flash Labeling Solutions are designed to comply with the latest regulations including the 2018 NFPA 70E Standard. Print using Easy-Mark Plus™ Labeling Software and TDP43ME thermal transfer desktop printer on pages 15 – 16.

Part Number	Description	Std. Pkg. Qty.
C200X400A51	Die cut arc flash warning label, 4.00" x 2.00" (101.6mm x 50.8mm), warning header, polyester adhesive, Orange header and Black/White.	1 Roll
C200X400YZ1	Die cut arc flash danger label, 4.00" x 2.00" (101.6mm x 50.8mm), danger header, polyester adhesive, Red header and Black/White.	1 Roll
C400X400A51	Die cut arc flash warning label, 4.00" x 4.00" (101.6mm x 101.6mm), warning header, polyester adhesive, Orange header and Black/White.	1 Roll
C400X400YZ1	Die cut arc flash danger label, 4.00" x 4.00" (101.6mm x 101.6mm), danger header, polyester adhesive, Red header and Black/White.	1 Roll
C400X600A51	Die cut arc flash warning label, 4.00" x 6.00" (101.6mm x 152.4mm), warning header, polyester adhesive, Orange header and Black/White.	1 Roll
C400X600Y81	Die-cut safety label, 4.00" x 6.00" (101.6mm x 152.4mm), polyester adhesive, Yellow.	1 Roll
C400X600YZ1	Die-cut arc flash danger label, 4.00" x 6.00" (101.6mm x 152.4mm), polyester adhesive, Red/White danger header.	1 Roll

Representative list only. Please visit www.panduit.com for full offering.

Safety and Security

IndustrialNet™ Data Access Port NEMA/UL Type 4X and Type 12, IP65

The IndustrialNet™ Data Access Port provides data port and electrical outlet access to control panels without the safety hazards of opening the panel and allows log-in to the network at the work site. The access port 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. The access port can also be locked with a padlock to secure the outlet.

Part Number	Description	Std. Pkg. Qty.
IAPNG5EWH	IndustrialNet™ GFCI Data Access Port, Category 5e coupler and blank, White.	1

Representative list only. Please visit www.panduit.com for full offering.

Network Security Block-Out and Lock-In Devices

Deter unauthorized network access and physical system changes.

Part Number	Description	Color	Std. Pkg. Qty.
Block-Out Devices			
PSL-DCJB	Ten RJ45 jack module block-out devices and one removal tool.	Red	1
PSL-LCAB	Ten LC jack module block-out devices and one removal tool.	Red	1
PSL-0SCBD	Ten SC jack module block-out devices and one removal tool.	Red	1
PSL-USBA	Package of five USB Type A blockout devices and one removal tool.	Red	1
PSL-USBB	Package of ten USB Type B blockout devices and one removal tool.	Red	1
Lock-In Devices			
PSL-DCPLX	Ten RJ45 plug lock-in devices, one installation/removal tool.	Red	1
PSL-DCPLRX	Ten recessed RJ45 plug lock-in devices, one installation/removal tool.	Red	1
FLCCLIW-X	LC duplex lock-in clip and removal tool.	White	1
QPPLD6-X	QuickNet™ 6-pack Plug Pack Lock-In Device.	Red	1
QPPLD8-X	QuickNet™ 8-pack Plug Pack Lock-In Device.	Red	1

Representative list only. Please visit www.panduit.com for full offering.

The Connected Control Panel

An ethernet enabled control panel supports the increasing number of Ethernet nodes on the plant floor and allows the business to measure productivity in real-time, resulting in improved efficiencies, increased productivity and reduced costs.

Industrial Network Uninterruptible Power Supply (UPS)

The Panduit Industrial Network UPS uses ultracapacitors instead of batteries, providing uninterrupted power and decreased risk of downtime for critical industrial applications including managed network switches, micro PLCs, and HMIs. The no-battery design is maintenance-free, delivering 2X better ROI and 50 – 70% lower cost of ownership than a battery-based UPS. Remote management via Ethernet connectivity with SNMP v1/v2c/v3 capability and standard web browser interface reduces operation expenses.

Part Number	Part Description	Std. Pkg. Qty
UPS00100DC	Uninterruptible Power Supply (UPS), 100 Watt; no-battery, maintenance-free with remote management; 24 – 28 VDC in/out, wide operating temperature range: -40°C to +60°C, DIN rail mount. UL Listed and CSA Certified.	1
UPS003LSM	UPS load sense module. Optional accessory for use in dual, redundant power supply configurations to monitor load on primary supply.	1

IndustrialNet™ 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	Std. Pkg. Qty.
FDME8RG	8-port fiber optic enclosure, DIN rail mount; includes a PG21 or 3/4 NPT cable cord grip to secure fiber cable(s) exiting the enclosure.	1
CDPP8RG	8-port copper patch panel, DIN rail mount; includes screws to attach faceplate, Ultimate ID® Labels and Clear Covers; can also mount to other surfaces using mounting holes in latches.	1

Representative list only. Please visit www.panduit.com for full offering.

Mini-Com® DIN Rail Mount Adapter

The DIN Rail Mount Adapter enables connection of active equipment in a zone enclosure or control panel. The adapter accepts a single module space Mini-Com® Module allowing easy moves, adds or changes to a single connection, with no specialized tools required. Low profile, compact size enables high component density on valuable DIN rail real estate.

Part Number	Part Description	Std. Pkg. Qty
CADIN1IG*	Mini-Com® DIN Rail Mount Adapter mounts to standard 35mm DIN rail and accepts any single port Mini-Com® Module, International Gray.	1

*For standard colors other than IG (International Gray), replace suffix with WH (White), IW (Off White), BL (Black) or EI (Electric Ivory). Port can be identified with UILS8BW and LS8E hand-held thermal transfer printer. Use CJSGK-XY kit to ground shielded jack modules to ground wire in shielded applications.
Representative list only. Please visit www.panduit.com for full offering.

IndustrialNet™ Copper Connectivity

IndustrialNet™ plugs, connectors, and adapters provide an ideal solution to support Industrial Ethernet connections to machines, devices and the rest of the plant network.

ISPS5E44MFA
ISPS6A88MFA

ICAM12X90RJS
ICAM12XRJS
ICAM12DRJS

IAEBHV56XS

IAEBH5*
IAEBH6*
IAEBHC5*
IAEBHC6*

MPSIV56XT

ISPS688FA
ISPS688FAS

Part Number	Description	Std. Pkg. Qty.
Industrial M12 Connectors		
ISPS5E44MFA	Category 5e M12 D-code shielded field terminable connector, male.	1
ISPS6A88MFA	Category 6A M12 X-code shielded field terminable connector, male.	1
ICAM12X90RJS	Category 6A M12 X-code shielded to RJ45 industrial adapter, 90° angle, panel mount.	1
ICAM12XRJS	Category 6A M12 X-code shielded to RJ45 industrial adapter, panel mount.	1
ICAM12DRJS	Category 5e M12 D-code to RJ45 industrial adapter, panel mount.	1
Industrial Bulkhead RJ45 Connector with Protective Cover		
IAEBHV56XS	Category 6A Variant 5 IP67 rated RJ45 connector, shielded.	1
IAEBH6X	Category 6A Variant 1 IP67 rated RJ45 connector.	1
IAEBH6XS	Category 6A Variant 1 IP67 rated RJ45 connector, shielded.	1
IAEBH6	Category 6 Variant 1 IP67 rated RJ45 connector.	1
IAEBH6S	Category 6 Variant 1 IP67 rated RJ45 connector, shielded.	1
IAEBH5E	Category 5e Variant 1 IP67 rated RJ45 connector.	1
IAEBH5ES	Category 5e Variant 1 IP67 rated RJ45 connector, shielded.	1
Industrial Bulkhead Couplers with Protective Cover		
IAEBHC6	Category 6 Variant 1 IP67 rated RJ45 coupler.	1
IAEBHC5E	Category 5e Variant 1 IP67 rated RJ45 coupler.	1
Industrial Mini-Com® Coupler Module		
IAEBHUSBAA	USB 2.0 Variant 1 IP67 rated female A to female A coupler.	1
Industrial RJ45 Plugs		
MPSIV56XT	Category 6A Variant 5 IP67 rated RJ45 plug for 26 – 22 AWG solid or stranded, shielded.	1
ISPS688FA	Category 6A RJ45 plug for 24 – 22 AWG solid, 1.0 – 1.6mm, shielded.	1
ISPS688FAS	Category 6A RJ45 plug for 24 – 22 AWG stranded, 0.85 – 1.00mm, shielded.	1

Representative list only. Please visit www.panduit.com for full offering.

Copper Patch Cords

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. Robust, 600V-rated patch cords deliver reliability for panel or on-machine applications when space is shared with high voltage power cables in industrial environments.

ISTPHCH1M*

UZPPBU
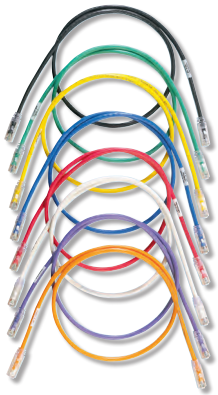
Part Number	Description	Std. Pkg. Qty.
ISTPHCH1M*	Category 5e, shielded 600V industrial patch cord, with modular plugs on each end.	1
UTPCH*Y	Category 5e, UTP patch cord with Pan-Plug® Modular Plugs on each end.	1
STPCH*MBBL	Category 5e, shielded patch cord with Pan-Plug® Shielded Modular Plugs on each end.	1
UTPSP*Y	Category 6, UTP patch cord with TX6™ PLUS Modular Plugs on each end.	1
STP6X*IG	Category 6A, 10 Gb/s S/FTP patch cord with TX6A™ 10Gig™ Modular Plugs on each end.	1
UTP6ASD*	Category 6A (SD), 10 Gb/s UTP patch cord with TX6A™ 10Gig™ Modular Plugs on each end.	1
UZPPBU*	Category 6A, UTP, solid, plenum, zone cable assembly with TX6A™ 10Gig™ Modular Plugs on each end.	1

Optional RJ45 plug lock-in devices offer a tamper resistant design that blocks unauthorized removal of critical connections, see page 22.
*A variety of performance levels, standard lengths and colors are available, contact customer service. Representative list only. Please visit www.panduit.com for full offering.

Fiber Patch Cords

IndustrialNet™ Patch Cords are pre-terminated and provide IP67 seal when mated to IP67 bulkhead adapters.

Part Number	Description	Std. Pkg. Qty.
IAEF617P-7PM1	Industrial LC to LC multimode duplex patch cord, 62.5/125µm, 1 meter.	1
IAEF617P-NM1	Industrial LC to pigtail multimode duplex pigtail, 62.5/125µm, 1 meter.	1

Representative list only. Please visit www.panduit.com for full offering.

IndustrialNet™ Overmolded Cordsets

IndustrialNet™ Overmolded Cordsets deliver high quality patch connections from machines and devices to switches and enclosures on the plant floor. Protocols supported include Ethernet, EtherNet/IP*, PROFINET, Modbus, and EtherCAT. The cordsets are industrially rated to IP67/68, NEMA 1, 3, 4, 6, 6P, UL and meet the industrial premise standards for performance, including M.I.C.E guidelines, ensuring high performance and longevity under harsh environmental conditions.

*EtherNet/IP is a trademark of ODVA, Inc.

M12, bulkhead, female D-code connector

M12, male D-code, straight connector

M12, female D-code, straight connector

M12, male D-code, angled connector

RJ45 modular plug

M12, bulkhead, female X-code connector

M12, male X-code, straight connector

Part Number	Termination End 1	Termination End 2	Std Pkg. Qty.
Category 5e, STP Cable			
ICD11T1NTL*M	M12, male D-code, straight connector	M12, male D-code, straight connector	1
ICD22T1NTL*M	M12, male D-code, angled connector	M12, male D-code, angled connector	1
ICD14T1NTL*M	M12, male D-code, straight connector	RJ45 Modular Plug	1
ICD44T1NTL*M	M12, bulkhead, female D-code connector	RJ45 Modular Plug	1
ICD45T1NTL0.5M	M12, bulkhead, female D-code connector	Unterminated	1
Category 5e, UTP Cable			
ICD11T2NTL*M	M12, male D-code, straight connector	M12, male D-code, straight connector	1
ICD35T2NTL*M	M12, female D-code, straight connector	Unterminated	1
ICD25T2NTL*M	M12, male D-code, angled connector	Unterminated	1
ICD15T2NTL*M	M12, male D-code, straight connector	Unterminated	1
Category 6A, STP Cable			
ICX11T1NTL*M	M12, male X-code, straight connector	M12, male X-code, straight connector	1
ICX44T1NTL*M	M12, bulkhead, female X-code connector	RJ45 Modular Plug	1
ICX45T1NTL0.5M	M12, bulkhead, female X-code connector	Unterminated	1
ICX15T1NTL*M	M12, male X-code, straight connector	Unterminated	1

*A variety of standard lengths and configurations are available, contact customer service. Representative list only. Please visit www.panduit.com for full offering.

IndustrialNet™ Motor Control Center (MCC) Connectivity

IndustrialNet™ MCC Cable Bundles provide the critical connections between industrial switches and other smart devices to the MCC, allowing businesses to take advantage of new IoT and Ethernet technologies for improved monitoring and maintenance of existing systems. Pre-terminated and industrially rated, Panduit MCC connectivity delivers a fast and reliable solution for harsh plant floor applications.

Part Number	Description	Std. Pkg. Qty.
I4JPBJLU*	Category 6A plenum; jack no stagger to jack-no stagger, no loom, Black.	1
I4KOTJLUX*	Category 6A outdoor; jack no stagger to jack no stagger, no loom, Teal.	1

*A variety of connections and lengths in loomed and non-loomed versions available, contact customer service. Representative list only.
Please visit www.panduit.com for full offering.

SynapSense® 900 Series Wireless Monitoring System

SynapSense® 900 Series Wireless Monitoring System provides a low-cost, easy-to-deploy solution to gather, communicate and visualize data in warehouses, retail spaces, and factories to improve reliability, product quality, operational efficiency and energy optimization. Robust IoT sensing technology delivers granular data at a fraction of the time and cost of wired solutions. The system includes tools to visualize, analyze and alarm based on customer needs, easing deployment and allowing immediate use of collected data.

IOT-9OC   IOT-9CM150

IOT-9CM20   IOT-9CT

IOT-9CTHL03   IOT-9CTL03

IOT-9GWPOE

Part Number	Description	Std. Pkg. Qty.
IOT-9OC	Open/close sensor captures door open/close status through magnet switch.	1
IOT-9CM150	Single phase AC current meter sensor captures RMS current data (0 – 150 Amps).	1
IOT-9CM20	Single phase AC current meter sensor captures RMS current data (0 – 20 Amps).	1
IOT-9CT	Temperature sensor captures temperature data (-18°C to 55°C).	1
IOT-9CTHL03	Temperature and humidity sensor captures temperature (-18°C to 55°C) and humidity (0 – 100% RH) data and includes a 3 foot probe.	1
IOT-9CTL03	Temperature sensor captures temperature (-18°C to 55°C) data and includes a 3 foot probe.	1
IOT-9WD	Water detection sensor detects the presence or non-presence of water using a spot detection probe.	1
IOT-9GWPOE	900 series wireless gateway collects and consolidates data captured from up to 100 wireless sensors and then sends that data to a remote server via Ethernet uplink. Can be powered via PoE or locally with included power supply. The gateway can be mounted with cable ties, adhesive, or with the gateway mounting kit.	1

For regions outside of the the Americas, add the following suffix to the end of each part number. EMEA-8, APAC-4, Japan-2.

IntraVUE™ Industrial Ethernet Visualization and Monitoring Software

IntraVUE™ Software automatically detects Ethernet-connected devices and assembles them into a connection tree map of the physical layer network infrastructure, providing visibility into all levels of devices on a manufacturing floor. This software tool enables quick and efficient identification to network communication problems and provides a comprehensive, accurate view of an entire Ethernet device architecture for non-technical users. IntraVUE™ Software empowers maintenance and/or controls engineers to shift from a reactive to proactive approach to greatly improve both the uptime and performance of critical, real-time networked automation systems.
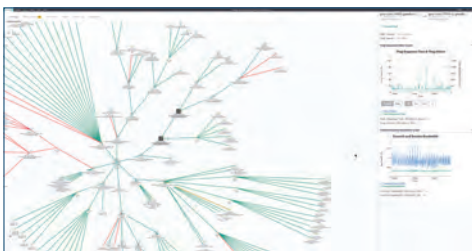
Nodes	Standard Product Number	Advanced Product Number
128	**SNMS-0128**	**SNMA-0128**
256	**SNMS-0256**	**SNMA-0256**
512	**SNMS-0512**	**SNMA-0512**
1,204	**SNMS-1024**	**SNMA-1024**
2,048	**SNMS-2048**	**SNMA-2048**
4,096	**SNMS-4096**	**SNMA-4096**
8,192	**SNMS-8192**	**SNMA-8192**

Product #WNMS-APPL is an optional Linux-based IntraVUE™ Appliance Package that contains only hardware.

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