

### INDUSTRIAL

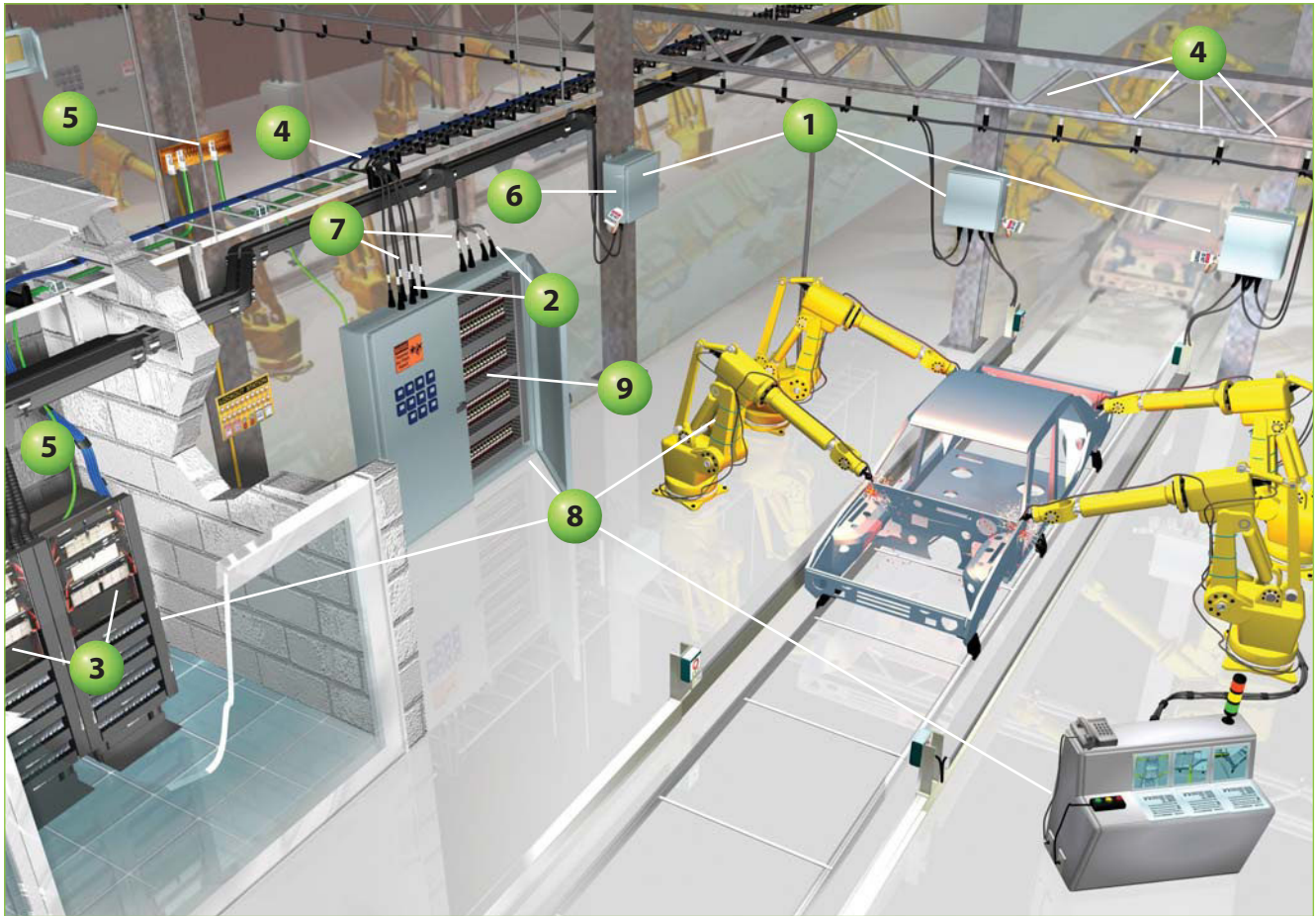
The Panduit® IndustrialNet™ Solution is a reliable, high performance network cabling infrastructure designed to support industrial networking applications in harsh factory environments. IP (Ingress Protection) and NEMA (National Electrical Manufacturers Association) rated products, including “hardened” network connectivity, withstand the harsh conditions encountered in industrial automation and industrial Ethernet applications.



- Connectors rated for factory and harsh environments – NEMA 6, 6P and IP67/IP65
- Fully integrated solution with proven interoperability from the enterprise to the industrial network
- Reduced cost of ownership for design, installation, and management of industrial networking

The IndustrialNet™ Solution includes IndustrialNet™ TX6™, TX5e™ Connectors, Patch Cords, Industrial Automation 4 Post Rack, IndustrialNet™ LC Fiber Optic Bulkhead Adapter and Patch Cords, IndustrialNet™ Ethernet Enclosures, and IndustrialNet™ Stainless Steel Faceplates.

# Industrial System Roadmap



**1** IndustrialNet™ Ethernet Enclosures (page N.3) 



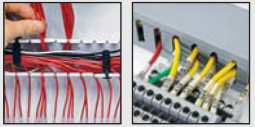
**5** Power and Grounding Connectors (pages M.1 – M.58)




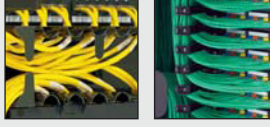
**2** IndustrialNet™ Connectors and Patch Cords (pages N.4 – N.8)



**6** Wiring Duct (pages P.1 – P.17)



**3** Cabinets, Racks, and Cable Management (pages L.1 – L.100) 



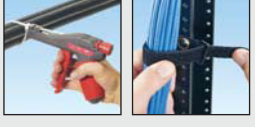
**7** Labeling and Identification (pages O.1 – O.30)



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**9** DIN Rail Mount Adapter (page N.4)



### IndustrialNet™ Ethernet Enclosure, Rack, and Accessories



- Enclosure with pre-configured back plate and side panels to accept Stratix<sup>^</sup> 8000, 5700 or or Cisco<sup>^</sup> IE3000, IE2000 industrial switches with expansion modules and a UPS
- Pre-configured enclosure with cable management, network connectivity, grounding, wire routing accessories with pre-configured back plate and side panels to accept Stratix<sup>^</sup> 8000, 5700 or Cisco<sup>^</sup> IE3000, IE2000 industrial switches with expansion modules and a UPS
- Pre-configured enclosure has all cable management components installed to get started; includes: Category 6 connectivity, patch cords, patch panel, wiring accessories, ground bar, and cable management
- Reversible hinging door for installation flexibility
- Internal side utility panels pre configured for modular cable management, fiber uplink, and other accessory mounting
- Enclosures meet UL 508 standards and are NEMA Type 4, 12, and IP66 rated for industrial environments
- Wall mountable through enclosure or with removable mounting flanges for mounting flexibility
- 4 post industrial cage nut rack accommodates 19" EIA mountable equipment for use in manufacturing data centers
- 4 post industrial cage nut rack has two adjustable depths for flexibility in equipment mounting
- Industrial Automation DIN rail bracket allows automation equipment to be mounted in 19" EIA rack



IAZ2436



IAZ2436C



IAZ2424



IAZ2424C



IAZ1214



IAZ1214C



Part Number	Part Description	Std. Pkg. Qty.
IAZ2436	Industrial automation zone enclosure with pre-configured backplane for up to two Stratix <sup>^</sup> 8000 or Cisco <sup>^</sup> IE3000 series industrial switches with expansion modules, UPS, and power supplies.	1
IAZ2436C	Fully pre-configured industrial automation zone enclosure with pre-configured backplane, cable management, and high voltage isolation barrier. For up to two Stratix <sup>^</sup> 8000 or Cisco <sup>^</sup> IE3000 series industrial switches with expansion modules, UPS, and power supplies.	1
IAZ2424	Industrial automation zone enclosure with pre-configured backplane for one Stratix <sup>^</sup> 5700 or Cisco <sup>^</sup> IE2000 series industrial switches with UPS and power supplies.	1
IAZ2424C	Fully pre-configured industrial automation zone enclosure with pre-configured backplane, cable management, and high voltage isolation barrier. For one Stratix <sup>^</sup> 5700 or Cisco <sup>^</sup> IE2000 series industrial switches with expansion modules, UPS, and power supplies.	1
IAZ1214	Industrial automation zone enclosure with pre-configured backplane for one Stratix <sup>^</sup> 5700 industrial switch and cabling.	1
IAZ1214C	Industrial automation zone enclosure pre-configured for one Stratix <sup>^</sup> 5700 industrial switch, with cable management.	1
PZNF1	NEMA 4X rated compression fitting, ideal for cable diameters of .115" to .250" (2.82mm to 6.35mm).	1
PZNF2	NEMA 4X rated compression fitting, ideal for cable diameters of .230" to .395" (5.84mm to 10.03mm).	1
PZNF3	NEMA 4X rated compression fitting, ideal for cable diameters of .170" to .450" (4.32mm to 11.43mm).	1
PZNDVK	NEMA 4X drain and vent kit.	1

<sup>^</sup>Cisco is a registered trademark of Cisco Technology, Inc.  
<sup>^</sup>Stratix 8000 is a trademark of Rockwell Automation, Inc.

Table continues on page N.4

**IndustrialNet™ Ethernet Enclosure, Rack, and Accessories (continued)**



**IAR4P48CN**



**IABDIN4**



**CADIN1IG**



**CBXF6BL-AY**



**FLCDMCXAQY**



**CMDSAQLCBL**



**FXE10-10M1Y**



**CDPP8RG**



**FDME8RG**

Part Number	Part Description	Std. Pkg. Qty.
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**Industrial Rack and Accessories**

<b>IAR4P48CN</b>	Industrial automation 4 post rack system. 24 RU high, cage nut equipment rails. Dimensions: 48.0"H x 23.2"W (1219mm) x (589mm) Depth adjustable at either 23.0" or 29.0" (584mm) or (737mm)	1
<b>IABDIN4</b>	Industrial automation bracket for standard EIA 19" wide rack or cabinet. Installs DIN rail mountable equipment. 4 RU high.	1

**Copper Connectivity Accessory**

<b>CADIN1IG</b>	Mini-Com® DIN Rail Mount Adapter mounts to standard 35mm DIN rail and accepts any single port Mini-Com® Module. Includes a label and label cover.	1
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**Fiber Uplink Accessories**

<b>CBXF6BL-AY</b>	Mini-Com® surface mount box accepts up to six Mini-Com® Modules. Includes built-in fiber spool that stores up to 24 meters of buffered fiber optic cable. Icon slots available for optional icons. Dimensions: 0.98"H x 4.70"W x 6.66"L (25.0mm x 119.4mm x 169.2mm)	1
<b>FLCDMCXAQY</b>	LC OptiCam® 10Gig™ 50/125µm OM3/OM4 Multimode Duplex Fiber Optic Connector for 900µm tight-buffered fiber installation.	1
<b>CMDSAQLCBL</b>	Module supplied with one LC Sr./Sr. 10Gig™ OM3/OM4 SFF Duplex Multimode Fiber Optic Adapter (AQ) with phosphor bronze split sleeves.	1
<b>FXE10-10M1Y</b>	LC to LC multimode duplex patch cord, 1.6mm jacketed cable (two duplex LC connectors on each end) – 10Gig™ 50/125µm.	1

**IndustrialNet™ 8-port DIN Rail Mount Patching Solutions**

<b>FDME8RG</b>	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 the enclosure.	1
<b>CDPP8RG</b>	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 in latches. Includes screws to attach faceplate and Ultimate ID labels and clear label covers.	1

### IndustrialNet™ TX6™ Connectors

- Bulkhead provides IP67/IP65 seal when mated with IP67/IP65 plug or patch cord
- Designed to exceed performance requirements of the ANSI/TIA-568-C.2 Category 6 and ISO 11801 2nd Edition Class E standards
- Meet industrial Ethernet specifications from ODVA, TIA, and IEC sealed RJ45 connectors
- Utilize Panduit patented enhanced Giga-TX™ Termination technique for consistent, reliable terminations
- Jack module terminates 4-pair 22 – 26 AWG solid and stranded twisted pair cable
- Gasket and seal made of inert, chemically resistant material
- Connector components are made of high temperature rated material
- Tethered caps maintain seal during unmated connection
- Compatible with leading switch manufacturers' equipment



IAEBH6S

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
<b>IndustrialNet™ TX6™ UTP Bulkhead Connector</b>			
IAEBH6	Category 6, RJ45, 8-position, 8-wire black industrial bulkhead connector with protective cover.	1	10
<b>IndustrialNet™ TX6™ Shielded Bulkhead Connector</b>			
IAEBH6S	Category 6, RJ45, 8-position, 8-wire shielded black industrial bulkhead connector with protective cover.	1	10

EGJT tool terminates enhanced Giga-TX™ Style Jack Modules, available on page B.92. Not suitable for direct UV applications.

### IndustrialNet™ TX6™ Coupler

- Provides convenient plug to plug connection point between the hardened switch and automation device
- Bulkhead provides IP67/IP65 seal when mated with IP67/IP65 plug or patch cord
- Designed to exceed performance requirements of the ANSI/TIA-568-C.2 Category 6 and ISO 11801 2nd Edition Class E standards
- Meet industrial Ethernet specifications from ODVA, TIA, and IEC sealed RJ45 connectors
- Meet requirements of IEEE 802.af and IEEE 802.3at for PoE applications
- Gasket and seal made of inert, chemically resistant material
- Connector components are made of high temperature rated material
- Tethered caps maintain seal during unmated connection
- Compatible with leading switch manufacturers' equipment



IAEBHC6

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
IAEBHC6	Category 6, RJ45, 8-position, 8-wire black industrial bulkhead coupler with protective cover.	1	10

Acts as one connecting hardware component in channel. Not suitable for direct UV applications.

**IndustrialNet™ TX6™ PLUS Patch Cords**

- Exceed ANSI/TIA-568-C.2 Category 6 and ISO 11801 Class E standards
- Meet requirements of IEEE 802.3af and IEEE 802.3at for PoE applications
- Each patch cord is 100% performance tested and wired to T568B
- Constructed of industrial Category 6, 24 AWG UTP or 26 AWG shielded stranded cable and modular plugs for superior performance

- Plug contacts plated with 50 microinches of gold for superior performance
- Plug meets all applicable ANSI/TIA/EIA-968-A requirements and exceeds IEC 60603-7 specifications
- Bulkhead provides IP67/IP65 seal when mated to an IP67/IP65, NEMA 6 or 6P bulkhead connector
- Patch cords are pre-terminated and provide IP67/IP65 seal when mated to IP67/IP65 bulkhead connectors
- Available with or without dust caps



IUTPSP\*BL



IUTPSPNC\*BL

Part Number	Part Description	Length		Std. Pkg. Qty.	Std. Ctn. Qty.
		Ft.	m		
<b>IndustrialNet™ TX6™ PLUS UTP Patch Cords</b>					
<b>IUTPSP3BL*</b>	Patch cord constructed of industrial grade UTP Category 6 stranded cable with modular plugs. Includes dust caps.	3	0.91	1	10
<b>IUTPSPNC3BL*</b>	Patch cord constructed of industrial grade UTP Category 6 stranded cable with modular plugs. Does not include dust caps.	3	0.91	1	10

<b>IndustrialNet™ TX6™ PLUS Shielded Patch Cords</b>					
<b>ISTPSP1MBL**</b>	Patch cord constructed of industrial grade shielded Category 6 stranded cable with shielded modular plugs. Includes dust caps.	3.28	1	1	10
<b>ISTPSPNC1MBL**</b>	Patch cord constructed of industrial grade shielded Category 6 stranded cable with shielded modular plugs. Does not include dust caps.	3.28	1	1	10

\*For lengths other than 3 feet (5, 7, 10, 15, or 20 feet) change the length designation in the part number to the desired length.

\*\*For lengths other than 1 meter (2, 3, or 5 meters) change the length designation in the part number to the desired length.

**IndustrialNet™ TX5e™ Connectors**

- Bulkhead provides IP67/IP65 seal when mated with IP67/IP65 plug or patch cord
- Exceed ANSI/TIA-568-C.2 Category 5e and ISO 11801 2nd Edition Class D standards
- Meet the industrial Ethernet specifications from ODVA, TIA, and IEC for sealed RJ45 connectors
- Utilize Panduit patented Giga-TX™ Termination technique for consistent, reliable terminations
- Terminate 4-pair 22 – 26 AWG solid and stranded twisted pair cable
- Gasket and seal made of inert, chemically resistant material
- High temperature rated material
- Tethered caps maintain seal during unmated connection



IAEBH5E

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
<b>IndustrialNet™ TX5e™ UTP Bulkhead Connector</b>			
<b>IAEBH5E</b>	Category 5e, 8-position, 8-wire industrial connector with protective cover.	1	10
<b>IndustrialNet™ TX5e™ Shielded Bulkhead Connector</b>			
<b>IAEBH5ES</b>	Category 5e, 8-position, 8-wire shielded industrial connector with protective cover.	1	10

EGJT tool terminates enhanced Giga-TX™ Style Jack Modules, available on page B.82. Not suitable for direct UV applications.

### IndustrialNet™ TX5e™ Coupler

- Provides convenient plug to plug connection point between the hardened switch and automation device
- Bulkhead provides IP67/IP65 seal when mated with IP67/IP65 plug or patch cord
- Designed to exceed performance requirements of the ANSI/TIA-568-C.2 Category 5e and ISO 11801 2nd Edition Class D standards
- Meets industrial Ethernet specifications from ODVA, TIA, and IEC sealed RJ45 connectors
- Gasket and seal made of inert, chemically resistant material
- Connector components are made of high temperature rated material
- Tethered caps maintain seal during unmated connection
- Compatible with leading switch manufacturers' equipment



IAEBHUSBAA

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
IAEBHC5E	Category 5e, RJ45, 8-position, 8-wire industrial black bulkhead coupler with protective cover.	1	10

Acts as one connecting hardware component in channel.  
Not suitable for direct UV applications.

### IndustrialNet™ USB Coupler

- Provides interface for transmitting data between devices such as scanners, digital cameras, printers, etc.
- Accepts USB 2.0 Patch Cords and is backwards compatible with USB 1.1 Patch Cords
- Supports cable lengths up to 15 feet between devices
- Bulkhead provides IP67/IP65 seal when mated with IP67/IP65 plug or patch cord
- Meets industrial Ethernet specifications from ODVA, TIA, and IEC sealed RJ45 connectors
- Gasket and seal made of inert, chemically resistant material
- Connector components are made of high temperature rated material
- Tethered caps maintain seal during unmated connection



IAEBHUSBAA

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
IAEBHUSBAA	IndustrialNet™ Mini-Com® USB 2.0 female A to female A coupler module.	1	10

### IndustrialNet™ TX5e™ Modular Plugs

- Bulkhead provides IP67/IP65 seal when mated with IP67/IP65 connector or coupler
- Exceed ANSI/TIA-568-C.2 Category 5e and ISO 11801 2nd Edition Class D standards
- Terminate 24 gauge, stranded or solid conductor with maximum conductor insulation diameter of .040"
- Gasket and seal made of inert, chemically resistant material
- Connector components are made of high temperature rated material
- Tethered caps maintain seal during unmated connection
- Compatible with leading switch manufacturers' equipment



MPI588T

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
<b>IndustrialNet™ TX5e™ UTP Modular Plug</b>			
MPI588T	Category 5e, RJ45 industrial plug with protective cover.	1	10
<b>IndustrialNet™ TX5e™ Shielded Modular Plug</b>			
MPSI588T	Category 5e, RJ45 shielded industrial plug with protective cover.	1	10

MPT5-8A crimp tool required for termination, available on page B.93.  
Not suitable for direct UV applications.

**IndustrialNet™ TX5e™ Patch Cords**

- Exceed ANSI/TIA-568-C.2 Category 5e and ISO 11801 Class D standards
- Meet requirements of IEEE 802.3af and IEEE 802.3at for PoE applications
- Each patch cord is 100% performance tested and wired to T568B
- Constructed of industrial Category 5e, 24 AWG UTP or 26 AWG shielded stranded cable and modular plugs for superior performance
- Plug contacts plated with 50 microinches of gold for superior performance
- Plug meets all applicable ANSI/TIA/EIA-968-A requirements and exceeds IEC 60603-7 specifications
- Bulkhead provides IP67/IP65 seal when mated to an IP67/IP65, NEMA 6 or 6P bulkhead connector
- Patch cords are pre-terminated and provide IP67/IP65 seal when mated to IP67/IP65 bulkhead connectors
- Available with or without dust caps

**IUTPCH\*BLY****IUTPCHNC\*BLY**

Part Number	Part Description	Length		Std. Pkg. Qty.	Std. Ctn. Qty.
		Ft.	m		

**IndustrialNet™ TX5e™ UTP Patch Cords**

<b>IUTPCH3BLY*</b>	Patch cord constructed of industrial grade UTP Category 5e stranded cable with modular plugs. Includes dust caps.	3	0.91	1	10
<b>IUTPCHNC3BLY*</b>	Patch cord constructed of industrial grade UTP Category 5e stranded cable with modular plugs. Does not include dust caps.	3	0.91	1	10

**IndustrialNet™ TX5e™ Shielded Patch Cords**

<b>ISTPCH1MBLY**</b>	Patch cord constructed of industrial grade shielded Category 5e stranded cable with shielded modular plugs. Includes dust caps.	3.28	1	1	10
<b>ISTPCHNC1MBLY**</b>	Patch cord constructed of industrial grade shielded Category 5e stranded cable with shielded modular plugs. Does not include dust caps.	3.28	1	1	10

\*For lengths other than 3 feet (5, 7, 10, 15, or 20 feet) change the length designation in the part number to the desired length.

\*\*For lengths other than 1 meter (2, 3, or 5 meters) change the length designation in the part number to the desired length.

**IndustrialNet™ LC Fiber Optic Bulkhead Adapter and Patch Cords**

- IndustrialNet™ Patch Cords are pre-terminated and provide IP67 seal when mated to IP67 bulkhead adapters
- Patch cords built with 62.5µm multimode duplex industrial-grade jacketed fiber cable
- Ideal for daisy-chaining hardened industrial switches between IP66 rated enclosures
- Pigtailed are ideal for routing fiber through conduit
- Patch cords are 100% factory tested for insertion loss
- Insertion loss data is recorded for every multimode patch cord, providing lifetime traceability to a QC number, labeled on each patch cord

**IAEF7JMA****IAEF617P-7PM1**

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
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**IndustrialNet™ LC Fiber Optic Bulkhead Adapter**

<b>IAEF7JMA‡</b>	Industrial LC fiber bulkhead adapter.	1	10
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**IndustrialNet™ LC Fiber Optic Patch Cord and Pigtail**

<b>IAEF617P-7PM1*</b>	Industrial duplex multimode 62.5µm LC to LC patch cord.	1	10
<b>IAEF617P-NM1**</b>	Industrial duplex multimode 62.5µm LC to pigtail.	1	10

‡Bulkhead includes duplex multimode LC adapter with phosphor bronze split sleeves.

\*For lengths other than one meter (2, 3, 10, 20, and 30 meter lengths) change the length description in the part number to the desired lengths.

\*\*Contact Panduit Customer Service for pigtail lengths and/or discrete length patch cords with LC fiber interface.



### IndustrialNet™ Data Access Port

- Provides a safe and secure means to maintain and monitor performance of PLC's, VFD, and industrial networks
- Integrated security features prevent access to critical devices by unauthorized personnel
- Allows access by non-arc flash certified personnel reducing cost, increasing efficiencies, and promoting overall safety
- NEMA 4X rating; constructed of aluminum casted base with clear, plastic, impact resistant cover, and modular faceplate



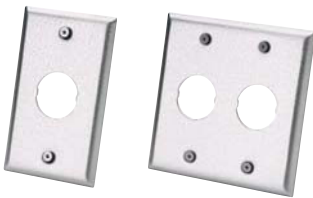
IAPNG5EWH

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
IAPNG5EWH	Data access port with GFCI and TX5e™ Coupler Module.	1	10
IAPNGWH	Data access port with GFCI.	1	10
IAPNWH	Empty data access port.	1	10



### IndustrialNet™ Stainless Steel Faceplates

- Accept IndustrialNet™ Connectors and Adapters
- Impact resistant for light industrial environments
- Rear gasket provides tight seal



IAEFP1

IAEFP2-2G

Part Number	Part Description	No. of Module Spaces	Std. Pkg. Qty.	Std. Ctn. Qty.
IAEFP1	Vertical faceplate accepts one IndustrialNet™ Bulkhead Connector or Adapter.	1	1	10
IAEFP2-2G	Double gang, vertical faceplate accepts two IndustrialNet™ Bulkhead Connectors or Adapters.	2	1	10

All faceplates include mounting screws.

### Component Labels for IndustrialNet™ Stainless Steel Faceplates



#### Suggested Label Solutions for TIA/EIA-606-A Compliance

Faceplate Part Number	Laser/Ink Jet Desktop Printer Label	TDP43ME Thermal Transfer Desktop Printer Label	PanTher™ LS8E Hand-Held Printer Label	Cougar™ LS9 Hand-Held Printer Label
IAEFP1	C061X030FJJ	C061X030YPT	C061X030FJC	T031X000FJC-BK
IAEFP2-2G	2 – C061X030FJJ	2 – C061X030YPT	2 – C061X030FJC	T031X000FJC-BK

For complete labeling solutions and product information, reference charts on pages O.1 – O.22.