

Integrated Network Zone System

PANDUIT®

SPECIFICATION SHEET

specifications

The integrated network zone system shall include Allen-Bradley® Stratix** Industrial Ethernet Switches, copper/fiber uplinks and downlinks and redundant power supplies with maintenance - free UPS. The enclosure shall be UL Type 4/12/4X and IP66 rated. A removable, pre-engineered back plate with DIN rails shall be incorporated in the enclosure. Pre-installed accessory side panels, fiber slack spool, and L rings shall be included for cable management. The door shall be secured with 3mm double bit or slotted latch drive feature. The door shall hinge on the right or left. Class 2 power circuits shall be pre-wired, labeled, and tested. A barrier shall be present to isolate IT personnel from high voltage power circuit.



technical information

Standards:	UL 508A Standard for Industrial Control Panels, UL Type 4/12 or 4X, IP66 Rated, CE
Dimensions:	Z23N: 36.0"H x 24.0"W x 11.7"D (914mm x 610mm x 297mm) Z22N: 24.0"H x 24.0"W x 11.7"D (610mm x 610mm x 297mm) Z11N: 14.0"H x 12.0"W x 9.7"D (356mm x 305mm x 247mm)
Color and material:	Enclosures: Gray, 14 gauge cold roll steel or 316 stainless steel Back panels: 14 gauge galvanized steel or 304 stainless steel
Thermal analysis:	Validated to 40°C ambient outside of enclosure or 60°C maximum within enclosure at up to 95% (non-condensing) humidity; Z11N systems rated up to 50°C ambient
Installation:	Wall mount with optional outside-mount flange

key features and benefits

Integrated solution:	Reduces time required for planning, designing, procurement, and installation, resulting in simpler specification and up to 75% faster implementation
Integrated Allen-Bradley® Stratix** switches:	Offer management and diagnostics from within IT and controls environments to optimize network traffic
Copper/fiber uplinks or patch field and copper/fiber connectivity:	Enables troubleshooting of network connections and verification of field terminations
Installed no battery, maintenance-free UPS:	Prevents rebooting of switch during short power outages and includes networked remote management which monitors Hold Time and Lifetime from the plant floor or office, saving time and money
Included redundant power supplies:	Minimize the risk of equipment failure for improved network reliability
Isolation barrier:	Segregates higher line voltage from lower voltage switch for increased safety
Bonding provisions and grounding bar:	Ensure path to ground to protect personnel and equipment
Gland plate:	Allows quick and easy access to machine ingress points into enclosure
Detailed installation guide:	Provides easy, repeatable design instructions assuring consistency and saving time on the job-site

applications

The Panduit Integrated Network Zone System is designed to rapidly deploy an EtherNet/IP*** network between the enterprise and plant floor. Integrated switches, connectivity and power features minimize engineering and installation time resulting in up to 75% faster implementation. The Integrated Network Zone System provides usability similar to IT switches for industrial switches on the plant floor. This ensures that management and control of the network does not get in the way of making the most effective use of available network data. With UL

Type 4/12/4X and IP66 ratings, the enclosures provide reliability and high performance, as an integral component of the end-to-end solution for Industrial Networks.

*Rockwell Automation and Allen-Bradley are registered by Rockwell Automation in the Patent and Trademark Office of the United States.

**Stratix, Stratix 8000, Stratix 5700 and Integrated Architecture are trademarks of Rockwell Automation.

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

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See part number table on pages 2-3

Related Products

PanZone® NEMA 4X Rated Compression Fittings

Cable diameters 0.115" – 0.250" :	PZNF1
Cable diameters 0.230" – 0.395" :	PZNF2
Cable diameters 0.170" – 0.450" :	PZNF3
Drain kit:	PZNDVK

IndustrialNet™ TX6™ Connectors

Category 6 UTP bulkhead connector:	IAEBH6
Category 6 STP bulkhead connector:	IAEBH6S

Fiber Uplink Accessories

Surface mount fiber box:	CBXF6BL-AY
LC OptiCam® connector:	FLCDMCXAQY
LC connector module:	CMDSAQLCBL
LC patch 10Gig patch cord:	FXE10-10M1Y
Opti-Core® Interlocking Armored Cable:	FOPRX12Y

DIN Rail Patching Accessories

Mini-Com® Copper 8-Port DIN Rail Patch Panel:	CDPP8RG
Mini-Com® Fiber 8-Port DIN Rail Patch Panel:	FDME8RG
Mini-Com® Single Port DIN Rail Mount Adapter:	CADIN1IG^

IndustrialNet™ TX6™ PLUS Patch Cords

UTP with dust cap:	IUTPSP3BL^^
UTP without dust cap Shielded with dust cap:	IUTPSPNC3BL^^
Shielded without dust cap:	ISTPSP1MBL^^^
Shielded without dust cap:	ISTPSPNC1MBL^^^

TX6500™ Copper Cable

Category 6, UTP: PUR6504BU-UY

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

^^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.

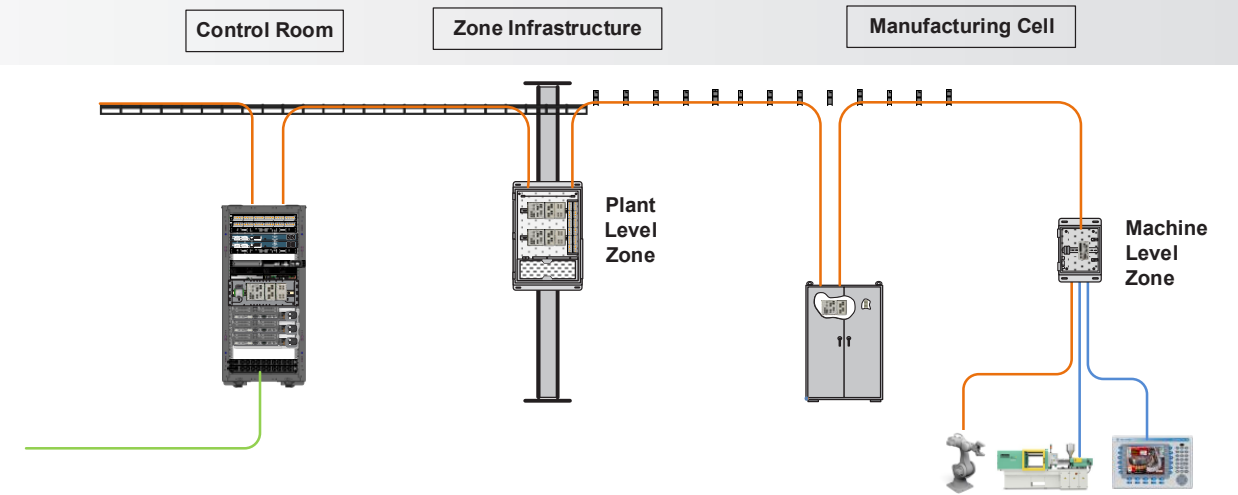
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Deploying Zone Network Topology

A highly effective way to deploy EtherNet/IP*** solutions in a plant floor environment is to follow the recommendations from Rockwell Automation* and Cisco**** in their Converged Plantwide Ethernet (CPwE) design and implementation guide. In this guide the use of zoned network topology is recommended as a best practice.

Using Panduit's Network Zone System integrated with Stratix** switches from Rockwell Automation* provides a platform for implementing small VLANs for Cell/Area Zones, as recommended in the CPwE to improve manageability and limit Layer 2 broadcast domains‡.

The zone enclosures allow all cables within a Cell/Area Zone to be managed and patched within a single enclosure. By using a zone cabling architecture approach, network cabling becomes easier to locate, manage, and maintain because each additional device is routed within the same pathways and enclosures. Managed cabling helps reduce the number of home runs throughout a facility and helps reduce abandoned cable in plenum spaces, helping make the workplace run more efficiently and safely.



Following a zone topology allows a highly scalable and flexible deployment using building blocks of the CPwE architecture.

Integrated Network Zone Systems - More options available at www.panduit.com/networkzone

Part number	Layout Image	Enclosure Type	Allen-Bradley* Stratix** Switch(es)	Expansion Module(s)	Downlink Port Connectivity Provided	Downlink Patch Field	Uplink Transceivers	Uplink Port Connectivity Provided	Panduit Industrial Network UPS	Power Input	Din Rail Mounting	Cable Management	Isolation Barrier	Gland Plate
Z23N-SBAAD5		4/12 Steel	1783-MS10T	None	(8) Cat 6 jacks and cords	19" 48-port patch panel CPP48 WBL Y	(2) 1783-SFP1GSX	(6) LC adaptors, (2) LC patch cords	No battery, maintenance-free UPS with remote management UPS00100DC; Estimated Hold Time = 1 minute typ. fully expanded with Load Sense Module UPS003LSM (one UPS and LSM per switch)	100-250 Vac	(3) 16.7 inch long DIN rails	7 inch deep strain relief bar and adjustable ring managers	Barrier to cover high voltage equipment on lower DIN rail	One removable machinable gland plate
Z23N-6BAAD5		4X 316 SS	1783-MS10T	None	(8) Cat 6 jacks and cords		(2) 1783-SFP1GSX	(6) LC adaptors, (2) LC patch cords						
Z23N-SBABD5		4/12 Steel	1783-MS10T	1783-MX08T	(16) Cat 6 jacks and cords		(2) 1783-SFP1GSX	(6) LC adaptors, (2) LC patch cords						
Z23N-SBACD5		4/12 Steel	1783-MS10T	(2) 1783-MX08T	(24) Cat 6 jacks and cords		(2) 1783-SFP1GSX	(6) LC adaptors, (2) LC patch cords						
Z23N-SBAGD5		4/12 Steel	1783-MS10T	1783-MX08F	(8) copper and (8) fiber cords		(2) 1783-SFP1GSX	(6) LC adaptors, (2) LC patch cords						
Z23N-SBBAD5		4/12 Steel	(2) 1783-MS10T	None	(16) Cat 6 jacks and cords		(4) 1783-SFP1GSX	(6) LC adaptors, (4) LC patch cords						
Z23N-SBBFD5		4/12 Steel	(2) 1783-MS10T	(4) 1783-MX08T	(48) Cat 6 jacks and cords		(4) 1783-SFP1GSX	(6) LC adaptors, (4) LC patch cords						
Z23N-SGABD5		4/12 Steel	1783-RMS10T	1783-MX08T	(16) Cat 6 jacks and cords		(2) 1783-SFP1GSX	(6) LC adaptors, (2) LC patch cords						
Z22N-SDAD5		4/12 Steel	1783-BMS10CGA	None	(8) Cat 6 jacks and cords	(1) 8-port patch panel CDP8RG	(2) 1783-SFP1GSX	(6) LC adaptors, (2) LC patch cords			(2) 16.7 inch long DIN rails			
Z22N-6DAD5		4X 316 SS	1783-BMS10CGA	None	(8) Cat 6 jacks and cords		(2) 1783-SFP1GSX	(6) LC adaptors, (2) LC patch cords						
Z22N-SDAA5		4/12 Steel	1783-BMS10CGA	None	(8) Cat 6 jacks and cords		none	(2) Cat 6 jacks, (2) Cat 6 patch cords						
Z22N-SEAD5		4/12 Steel	1783-BMS20CGP	None	(16) Cat 6 jacks and cords		(2) 8-port patch panel CDP8RG	(2) 1783-SFP1GSX						
Z22N-SHAD5	4/12 Steel	1783-BMS20CGN	None	(16) Cat 6 jacks and cords	(2) 1783-SFP1GSX	(6) LC adaptors, (2) LC patch cords								
Z11N-SDD		4/12 Steel	1783-BMS10CGA	None	copper connectivity specified by user	Application dependent	(2) 1783-SFP1GSX	(2) LC adaptors, (2) LC patch cords	N/A	24-48 Vdc	(1) 10.0 inch long DIN rail	Adjustable ring managers	Low voltage enclosure	
Z11N-SDA		4/12 Steel	1783-BMS10CGA	None			none	(2) Cat 6 jacks, (2) Cat 6 patch cords						
Z11N-SED		4/12 Steel	1783-BMS20CGP	None			(2) 1783-SFP1GSX	(2) LC adaptors, (2) LC patch cords						

*For additional reference see the Panduit Popular Configuration Drawing "Overview of Industrial Switch Deployment" PCD0001.

Leveraging the Rockwell Automation* Integrated Architecture** technology simplifies switch configuration and integration while providing machine-based diagnostics and troubleshooting tools. Stratix** Industrial Ethernet Switches also leverage the Cisco**** operating system, bringing the world's leading switching technology to the plant floor environment. Advanced switch feature sets include: STP/RSTP/MST, Resilient Ethernet Protocol (REP), Flexlinks, EtherChannel (link aggregation), QoS, IGMP snooping with querier, VLANs with trunking, IEEE 1588 PTP v2, IPv6 support, storm control with alarming, egress traffic shaping; compatible with Cisco**** Network Assistant (CNA) and CiscoWorks.

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configuration options

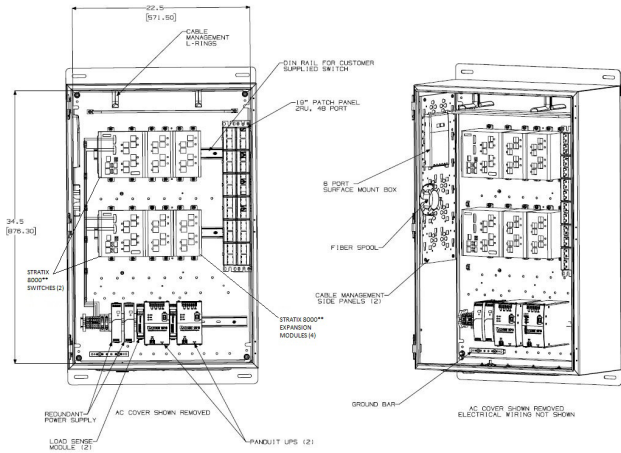
NEMA 4X enclosure: For 316 Stainless Steel: Substitute "S" with "6". For example: Z23N-6BAAD5.

Shielded connectivity: For deployments requiring shielded copper cabling, add an "S" to the end of the part number. For example: Z23N-SBAAD5S. These systems will include shielded Category 6 jacks and shielded patch cables.

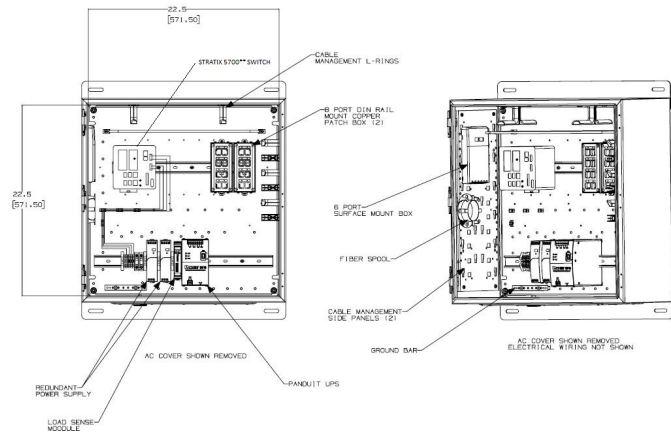
Singlemode Uplinks: For singlemode fiber optic uplinks substitute "D" for "E". For example: Z23N-SBAAE5. These systems will include two SM SFP transceivers (1783-SFP1GLX) and two SM fiber optic patch cables per switch.

UPS: For systems without a UPS, substitute the "5" in the part number to a "4". For example: Z23N-6BAAD5 without a UPS is Z23N-6BAAD4.

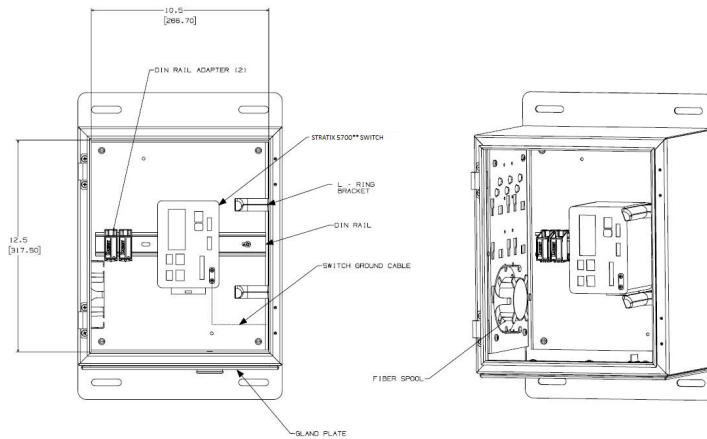
Z23N-SBBFD5



Z22N-SEAD5



Z11N-SDD



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