Switch Ready Network Zone System

specifications

The switch ready network zone system shall include copper/fiber uplinks and downlinks optimized for industrial Ethernet switches. System shall incorporate 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:	**Z23R:** 36.0"H x 24.0"W x 11.7"D (914mm x 610mm x 297mm) **Z22R:** 24.0"H x 24.0"W x 11.7"D (610mm x 610mm x 297mm)
Color and material:	Enclosures: Gray, 14 gauge cold roll steel or 316 stainless steel Back panels: 14 gauge galvannealed 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
Installation:	Wall mount with optional outside-mount flange

key features and benefits

Switch ready solution	Reduces time required for planning, designing, procurement, and installation, resulting in simpler specification and faster implementation
Designed to accept customer supplied industrial 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 Switch Ready Network Zone System is designed to rapidly deploy an EtherNet/IP*** network between the enterprise and plant floor. Copper/fiber connectivity and power features minimize engineering and installation time resulting in faster implementation. The Switch Ready 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.

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**Stratix, Stratix 8000, Stratix 5700 and Integrated Architecture are trademarks of Rockwell Automation.
***EtherNet/IP is a trademark of ODVA.

www.panduit.com/networkzone

Switch Ready Network Zone System
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:	CMDSAQLCZBL
LC patch 10Gig patch cord:	FX2ERLNLNSNM001
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	IUTPSPNC3BL^^
Shielded with dust cap:	ISTPSP1MBL^^^
Shielded without dust cap:	ISTPSPNC1MBL^^^

TX6500™ Copper Cable

Category 6, UTP:	PUR6504BU-UY

Suggested Allen-Bradley* Stratix products, available from Rockwell Automation***

1783-MS10T Stratix 8000** switch
1783-MX08T Stratix 8000 copper expansion module
1783-MX08F Stratix 8000 fiber expansion module
1783-BMS10CGN Stratix 5700** 10-port switch with Network Address Translation (NAT)
1783-BMS20CGN Stratix 5700 20-port switch with NAT

^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.
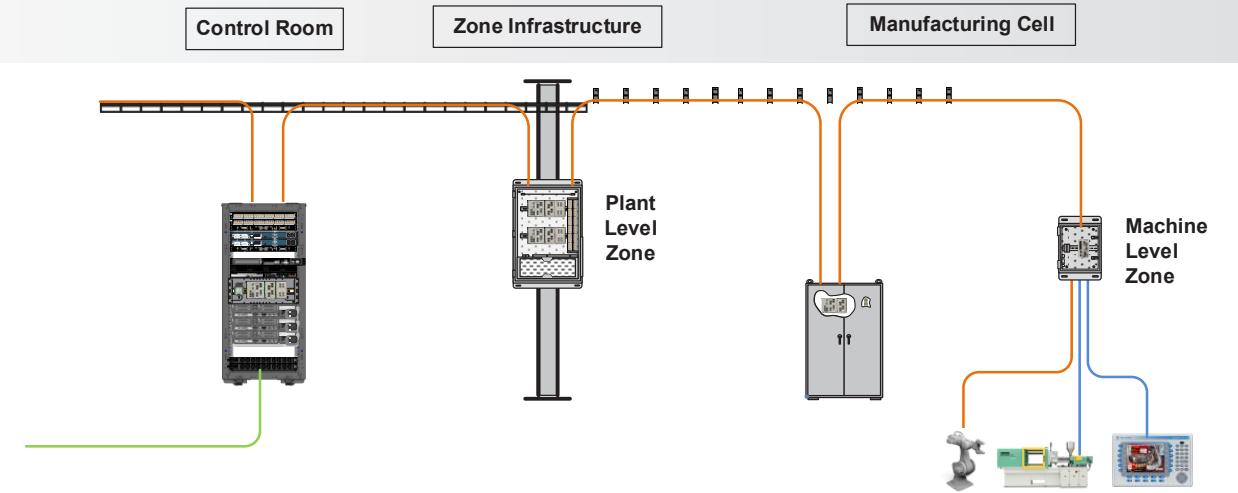
Switch Ready Network Zone System

Control Room   Zone Infrastructure   Manufacturing Cell

Plant Level Zone

Machine Level Zone

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.

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

Part number	Layout Image	Enclosure Type	Industrial Switch(es)	Downlink Port Connectivity Provided	Downlink Patch Field	Uplink Port Connectivity Provided	Panduit Industrial Network UPS	Power Input	Din Rail Mounting	Cable Management	Isolation Barrier	Gland Plate
Z23R-S15		4/12 Steel		(16) Cat 6 UTP jacks and cords		(6) LC adaptors, (2) LC patch cords						
Z23R-S15S		4/12 Steel	(1) user defined industrial switch with max power of 42 watts at 24 Vdc	(16) Cat 6 STP jacks and cords		(6) LC adaptors, (2) LC patch cords						
Z23R-615		4X 316 SS		(16) Cat 6 UTP jacks and cords		(6) LC adaptors, (2) LC patch cords						
Z23R-615S		4X 316 SS		(16) Cat 6 STP jacks and cords	19" 48-port patch panel CPP48WBLY	(6) LC adaptors, (2) LC patch cords			(3) 16.7 inch long DIN rails			
Z23R-S25		4/12 Steel		(16) Cat 6 UTP jacks and cords		(6) LC adaptors, (4) LC patch cords						
Z23R-S25S		4/12 Steel	(2) user defined industrial switches with max power of 42 watts at 24 Vdc	(16) Cat 6 STP jacks and cords		(6) LC adaptors, (4) LC patch cords						
Z23R-625		4X 316 SS		(16) Cat 6 UTP jacks and cords		(6) LC adaptors, (4) LC patch cords						
Z23R-625S		4X 316 SS		(16) Cat 6 STP jacks and cords		(6) LC adaptors, (4) 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 Single Phase		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
Z22R-S15		4/12 Steel		(8) Cat 6 UTP jacks and cords		(6) LC adaptors, (2) LC patch cords						
Z22R-S15S		4/12 Steel	(1) user defined industrial switch with max power of 42 watts at 24 Vdc	(8) Cat 6 STP jacks and cords	(1) 8-port patch panel CDPP8RG	(6) LC adaptors, (2) LC patch cords						
Z22R-615		4X 316 SS		(8) Cat 6 UTP jacks and cords		(6) LC adaptors, (2) LC patch cords						
Z22R-615S		4X 316 SS		(8) Cat 6 STP jacks and cords		(6) LC adaptors, (2) LC patch cords			(2) 16.7 inch long DIN rails			
Z22R-S25		4/12 Steel		(16) Cat 6 UTP jacks and cords		(6) LC adaptors, (4) LC patch cords						
Z22R-S25S		4/12 Steel	(2) user defined industrial switches with max power of 42 watts at 24 Vdc	(16) Cat 6 STP jacks and cords	(2) 8-port patch panels CDPP8RG	(6) LC adaptors, (4) LC patch cords						
Z22R-625		4X 316 SS		(16) Cat 6 UTP jacks and cords		(6) LC adaptors, (4) LC patch cords						
Z22R-625S		4X 316 SS		(16) Cat 6 STP jacks and cords		(6) LC adaptors, (4) 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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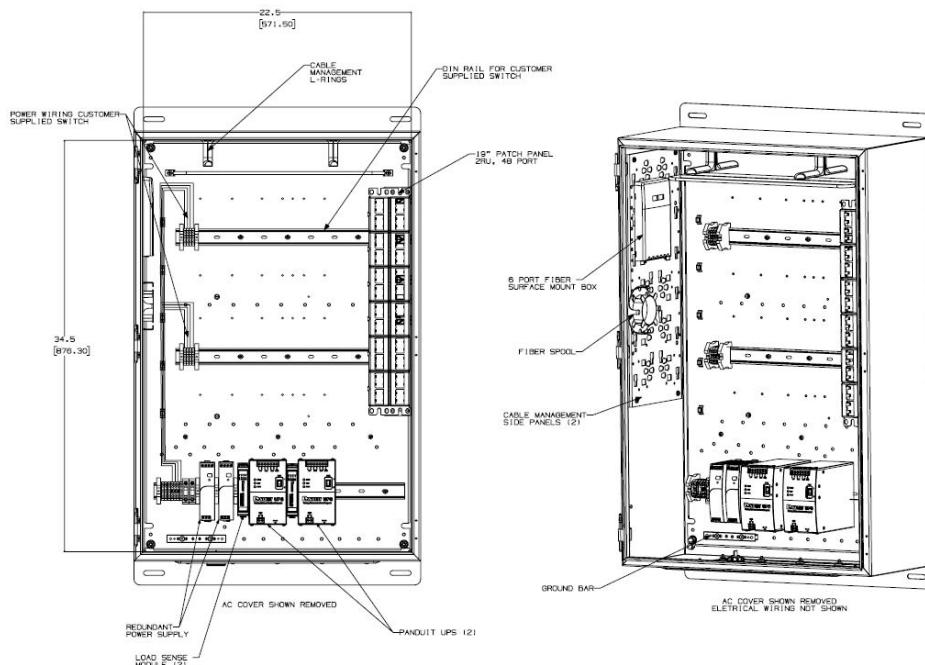**Stratix, Stratix 8000, Stratix 5700 and Integrated Architecture are trademarks of Rockwell Automation. ***EtherNet/IP is a trademark of ODVA. ****Cisco is a registered trademark of Cisco Technology Inc.
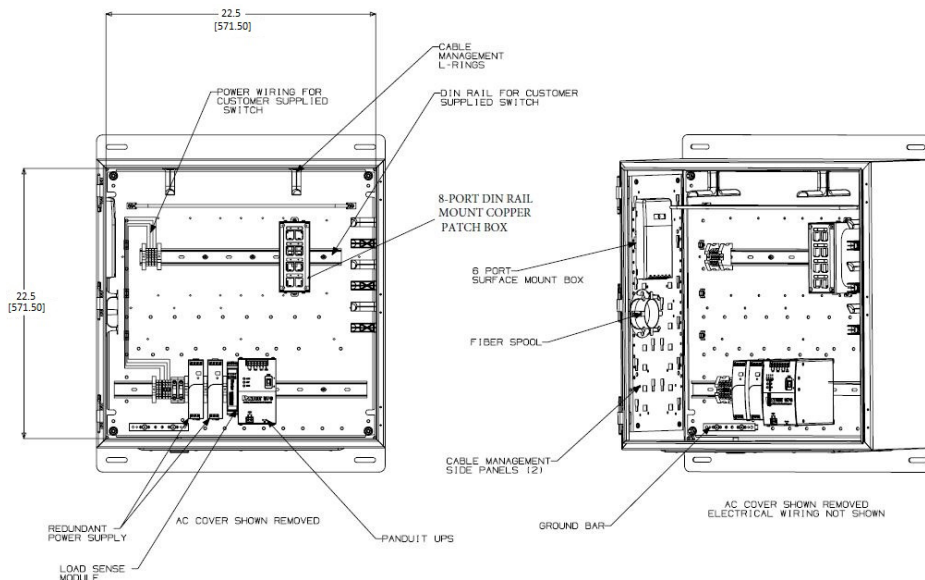
Switch Ready Network Zone System

configuration options

UPS: For systems without a UPS, substitute the "5" in the part number to a "4".
For example: Z23R-S15 without a UPS is Z23R-S14

Z23R-S25

Z22R-S15

Dimensions are in inches. [Dimensions in brackets are metric.]

Rockwell Automation
Strategic Alliance

For a copy of Panduit product warranties, log on to www.panduit.com/warranty

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or by phone: 800.777.3300

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