# Universal Network Zone System

## specifications

The universal network zone system shall include copper/fiber uplinks and downlinks optimized for industrial Ethernet switches. System shall incorporate redundant power supplies and optional UPS and PoE power supply. The enclosure shall be UL 508A, UL Type 4/12/4X, IP66 rated and CE. 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:** | **Z23U:** 36.0"H x 24.0"W x 11.7"D (914mm x 610mm x 297mm) <br> **Z22U:** 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 <br> 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 up to 75% faster implementation |
| **Universal design:** | Works with most DIN mount industrial Ethernet switches, providing design flexibility |
| **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 |
| **Included redundant power supplies:** | Minimize the risk of equipment failure for improved network reliability |
| **Optional maintenance-free UPS:** | Prevents rebooting of switch and loss of network during power outages |
| **Optional PoE:** | Provides 48Vdc power to the switch for PoE devices to simplify PoE capable deployments and save money on the purchase of PoE injectors |
| **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 |
| **Detailed installation guide:** | Provides easy, repeatable design instructions assuring consistency and saving time on the job-site |

## applications

The Panduit Universal Network Zone System is designed to rapidly deploy an industrial Ethernet network between the enterprise and plant floor. Copper/fiber connectivity and power features minimize engineering and installation time resulting in faster implementation. The Universal Network Zone System provides usability similar to IT switches for any customer owned industrial switch to be deployed on the plant floor. This ensures that management and control of the network does not impede effective network data usage. With UL Type 4/12/4X, IP66 rating and CE, the enclosures provide reliability and high performance, as an integral component of the end-to-end solution for Industrial Networks.

**www.panduit.com/networkzone**

---

### Universal Network Zone System

| | |
|---|---|
| **24" x 36": Z23U** | See part table on page 2 |
| **24" x 24": Z22U** | See part table on page 3 |

### Related Products

**PanZone® NEMA 4X Rated Drain Kit**

| | |
|---|---|
| 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: | CMDJAQLCZBL |
| LC OM3 patch cord: | FX2ERLNLNSNM001 |
| Opti-Core® Interlocking Armored Cable: | FOPRX12Y |

### DIN Rail Patching Accessories

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

### Copper Connectivity

| | |
|---|---|
| UTP patch cord: | UTP28SP3 |
| UTP Mini-Com® Jack: | CJ688TGIW |
| STP patch cord: | STP28X1MIG |
| STP Mini-Com® Jack: | CJS6X88TGY |

### 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).

## Universal Network Zone System 24" x 36"

More options available at www.panduit.com/networkzone
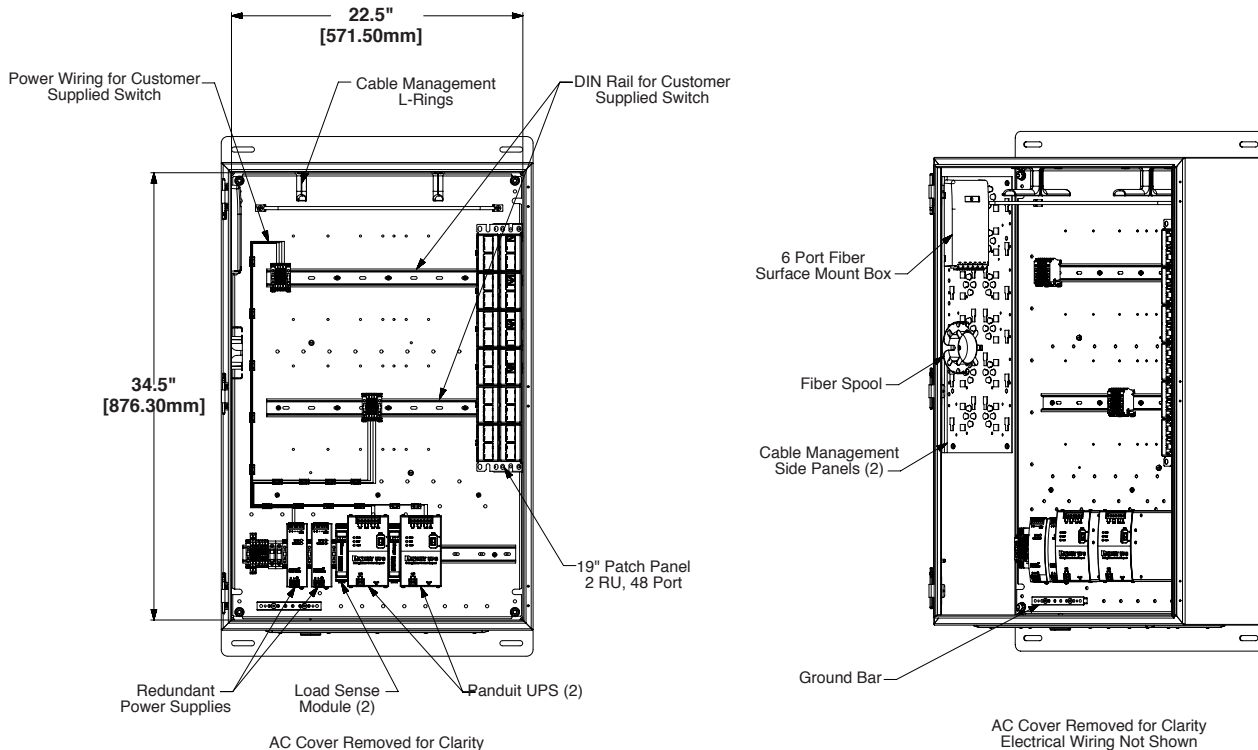
**Provided with Z23U Enclosures:**

- Downlink Port Connectivity – sixteen Category 6 UTP jacks and patch cords
- Downlink Patch Field – 19" 48-port patch panel (CPP48WBLY)
- Uplink Port Connectivity – six LC adaptors, four LC OM3 patch cords
- Power Infrastructure – redundant 24Vdc power supplies and optional UPS, PoE
- Power Input – 100 – 250 Vac single phase
- DIN Rail Mounting – three 16.7" long DIN rails
- Cable Management – 7" deep strain relief bar and adjustable ring managers
- Isolation barrier to cover high voltage equipment on lower DIN rail

**Customer Supplied:** accepts up to two user-defined industrial DIN mount switches with max dissipation of 42 watts at 24Vdc

| Part Number | Enclosure Type | Power Options |
|---|---|---|
| Z23U-S24 | 4/12 Steel | Redundant power supplies |
| Z23U-624 | 4X 316 SS | Redundant power supplies |
| Z23U-S25 | 4/12 Steel | Redundant power supplies and two maintenance-free UPSs |
| Z23U-S25S | 4/12 Steel | Redundant power supplies and two maintenance-free UPSs |
| Z23U-625 | 4X 316 SS | Redundant power supplies and two maintenance-free UPSs |
| Z23U-625S | 4X 316 SS | Redundant power supplies and two maintenance-free UPSs |
| Z23U-S15 | 4/12 Steel | Redundant power supplies and one maintenance-free UPS |
| Z23U-S15S | 4/12 Steel | Redundant power supplies and one maintenance-free UPS |
| Z23U-615 | 4X 316 SS | Redundant power supplies and one maintenance-free UPS |
| Z23U-615S | 4X 316 SS | Redundant power supplies and one maintenance-free UPS |

For systems with STP Category 6A patch cords and jacks, add an "S" to the end of the part number, for example Z23U-S24 includes UTP copper connectivity, while Z23U-S24S includes STP copper connectivity.

## Elevation Example: Z23U-S25



22.5"
[571.50mm]

Power Wiring for Customer Supplied Switch

Cable Management L-Rings

DIN Rail for Customer Supplied Switch

34.5"
[876.30mm]

19" Patch Panel 2 RU, 48 Port

Redundant Power Supplies

Load Sense Module (2)

Panduit UPS (2)

AC Cover Removed for Clarity

6 Port Fiber Surface Mount Box

Fiber Spool

Cable Management Side Panels (2)

Ground Bar

AC Cover Removed for Clarity
Electrical Wiring Not Shown

# Universal Network Zone System

## Universal Network Zone System 24" x 24"

More options available at www.panduit.com/networkzone
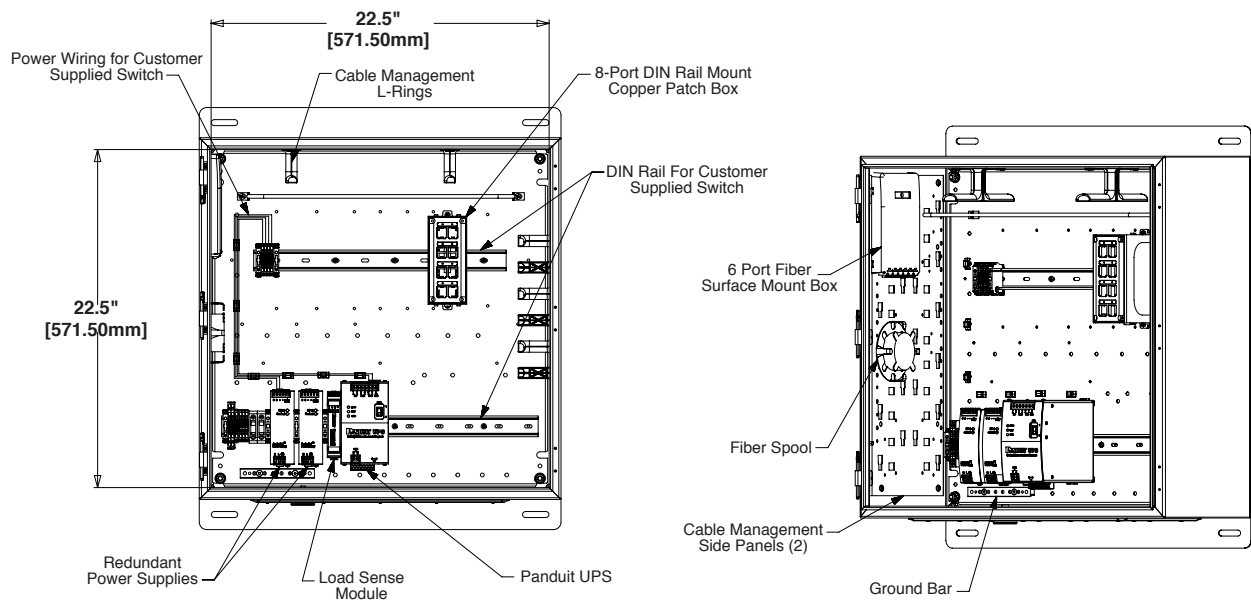
**Provided with Z22U Enclosures:**

- Downlink Port Connectivity – eight Category 6 UTP jacks and patch cords
- Downlink Patch Field – one 8-port patch panel (CDPP8RG)
- Uplink Port Connectivity – six LC adaptors, two LC OM3 patch cords
- Power Infrastructure – redundant 24Vdc power supplies and optional UPS, PoE
- Power Input – 100 – 250 Vac single phase
- DIN Rail Mounting – two 16.7" long DIN rails
- Cable Management – 7" deep strain relief bar and adjustable ring managers
- Isolation barrier to cover high voltage equipment on lower DIN rail

**Customer Supplied:** accepts one user-defined industrial DIN mount switch with max dissipation of 42 watts at 24Vdc

| Part Number | Enclosure Type | Power Options |
|---|---|---|
| Z22U-S14 | 4/12 Steel | Redundant power supplies |
| Z22U-614 | 4X 316 SS | Redundant power supplies |
| Z22U-S15 | 4/12 Steel | Redundant power supplies and one maintenance-free UPS |
| Z22U-S15S | 4/12 Steel | Redundant power supplies and one maintenance-free UPS |
| Z22U-615 | 4X 316 SS | Redundant power supplies and one maintenance-free UPS |
| Z22U-615S | 4X 316 SS | Redundant power supplies and one maintenance-free UPS |

For systems with STP Category 6A patch cords and jacks, add an "S" to the end of the part number, for example Z22U-S14 includes UTP copper connectivity, while Z22U-S14S includes STP copper connectivity.
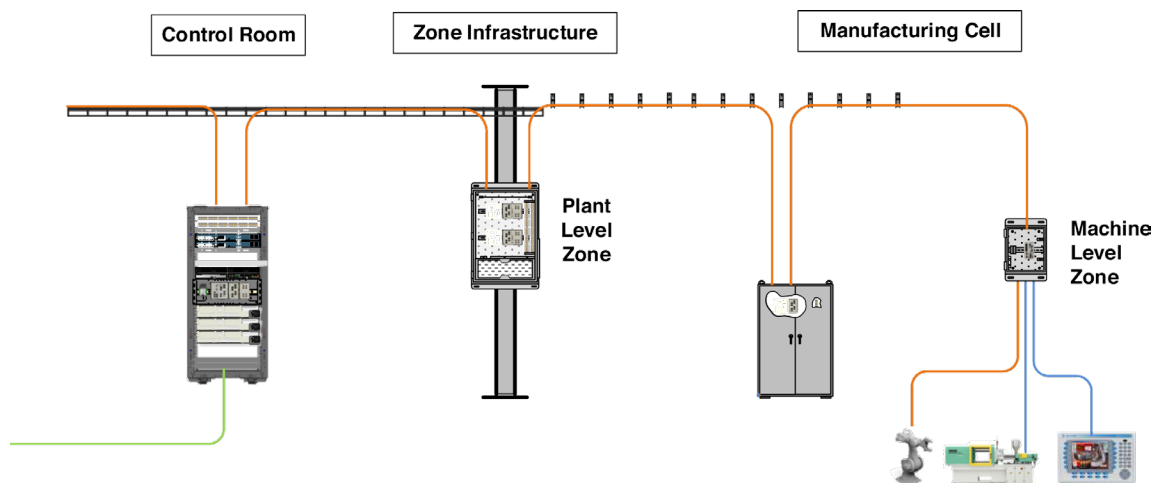
## Elevation Example: Z22U-S15



AC Cover Removed for Clarity

AC Cover Removed for Clarity
Electrical Wiring Not Shown

## Deploying Zone Network Topology

The Panduit® building block architecture for industrial networks is a highly effective way to deploy industrial Ethernet solutions in a plant floor environment. Panduit's network zone systems building block helps to deploy industrial switches and provide a platform to improve manageability, localize network traffic, and limit Layer 2 broadcast domains‡. The network zone systems allow all cables within a cell/area zone to be managed and patched within a single enclosure. By using a zone cabling architecture, network cabling becomes easier to locate, manage, and maintain because each additional device is routed within the same pathways and enclosure. Managed cabling decreases the number of home runs throughout a facility and reduces abandoned cable in plenum spaces, to make the workplace run more efficiently and safely.



*Following a zone topology with the Panduit building block architecture creates a highly scalable and flexible network deployment.*

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

**Visit us at www.panduit.com/networkzone**

iai@panduit.com