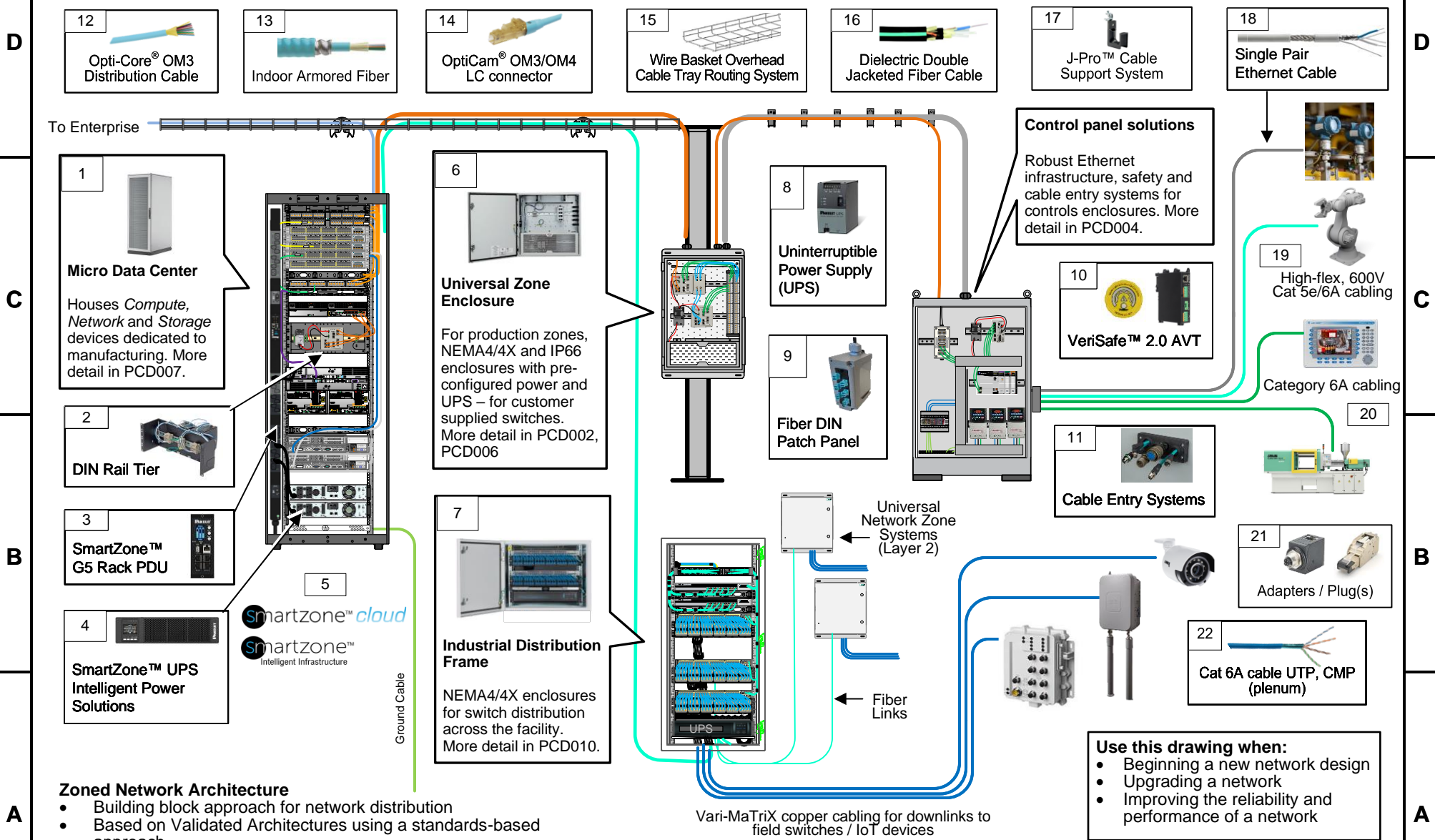


TYPICAL INDUSTRIAL NETWORK DEPLOYMENT

A switch can be deployed in a Micro Data Center, Zone Enclosure, Industrial Distribution Frame, Control Panel, or on a Machine



Control panel solutions
Robust Ethernet infrastructure, safety and cable entry systems for controls enclosures. More detail in PCD004.

Micro Data Center
Houses Compute, Network and Storage devices dedicated to manufacturing. More detail in PCD007.

Universal Zone Enclosure
For production zones, NEMA4/4X and IP66 enclosures with pre-configured power and UPS – for customer supplied switches. More detail in PCD002, PCD006

Industrial Distribution Frame
NEMA4/4X enclosures for switch distribution across the facility. More detail in PCD010.

SmartZone™ G5 Rack PDU

SmartZone™ UPS Intelligent Power Solutions

smartzone™ cloud
smartzone™ Intelligent Infrastructure

- Zoned Network Architecture**
- Building block approach for network distribution
 - Based on Validated Architectures using a standards-based approach
 - Reduces cable home runs back to TR or Data Center reducing cable sprawl
 - Improved scalability and future ready

Use this drawing when:

- Beginning a new network design
- Upgrading a network
- Improving the reliability and performance of a network

Bill of Materials

Ref.	Part Number	Description
Pre-Configured Micro Data Centers, SmartZone Intelligent Infrastructure, Cloud		
1	MDC82NN	NEMA Type 12 with 42 RU, two solid side panels, network cabling, patch panels, cable management, grounding, and casters. 82.1" (2085mm)
	MDC79	42 RU, two side panels, network cabling, patch panels, cable management, grounding, casters, and rack. 79.8" (2026mm)
2	ZDINS25	Pre-configured expansion tier for Universal Distribution Frame to hold two industrial switches. Includes 48-port patch panel, a 4RU DIN bracket, maintenance-free UPS, two power supplies AC to DC, terminal blocks, and wiring for 120 V AC input.
3	P24G01M	SmartZone™ G5 Monitored and Switched per Outlet PDU with 20 C13 and 4 C19 outlets; 30 amp, 208 V, single phase PDU with a NEMA L6-30P input plug and a 10-foot (3m) power cord.
4	U03N11V	SmartZone™ UPS, 3kVA, 2U, 120V, WRLA, Single Phase, Double-Conversion On-Line Power Protection with Intelligent Network Card & Rail Kit
5	SZC-PEIA1Y/3Y SZC-ITIA1Y/3Y	SmartZone™ Cloud Software, enterprise web-application hosted in the cloud for power and environment monitoring, asset and connectivity management and cabinet access control
Universal Network Zone System and Industrial Distribution Frame		
6	Z23U*	Universal network zone system. 24" x 36", mild steel enclosure
	Z22U*	Universal network zone system. 24" x 24", mild steel enclosure
7	ZDF48-RA	Pre-Configured industrial distribution frame enclosure. Accommodates three access and two distribution switches.
Control Panel		
8	UPS00100DC	Maintenance-free, No battery, 100 Watts, 24V DC Uninterruptible Power Supply (UPS)
9	FDPPSIG	IndustrialNet™ Fiber DIN Rail Patch Panel; standard, for use with fiber adapter panels
	FDPPEIG	IndustrialNet™ Fiber DIN Rail Patch Panel; extended, for use with fiber adapter panels and Opticom® Cassettes
10	VS2-AVT-1IF	VeriSafe™ 2.0 Absence of Voltage Tester Battery-Free Indicator Module; single phase faceplate and indicator module only.
	VS2-NET	VeriSafe™ 2.0 Absence of Voltage Tester Network Module Accessory.
11	CEST2-E12	Rectangular Terminated Cable Entry System, 2.28" (57.9 mm) W X 5.83" (165.6 mm) Long with 12 small grommet holes
Cabling, Connectors and Pathways		
12	FODRX12Y	50um OM3 12 Fiber Indoor Distribution Cable, Riser (OFNR), 900um buffered fibers
13	FOPPX12Y	50um OM3 12 Fiber Indoor Armored Fiber Cable, Plenum (OFCP)
14	FLCDMCXAQY	OptiCam® LC OM3/OM4 multimode duplex connector for 900um
15	PWB2X12BL	Wire Basket Cable Tray Routing System to route and manage copper, fiber optic, or power cables. Part listed: 2" H x 12" W
16	FOJDZ12**	OM4 fiber, Dielectric Double Jacketed (indoor/outdoor), Riser, Low Smoke Zero Halogen, Multimode, 12 fiber. **additional fiber counts available.
	FSJD912**	OS2 fiber, Dielectric Double Jacketed (indoor/outdoor), Riser, Low Smoke Zero Halogen, Singlemode, 12 fiber. **additional fiber counts available.
17	JP2CMB-L20	J-Pro™ cable support with ceiling mount bracket (various other styles also available)
18	SP-SFCS1IG-CEG	Single Pair Ethernet cable, 18/7 AWG, S/FTP, stranded twisted pair with two fillers, foil shield and braid shield and 24/7 copper ground wire
19	ISFCH5C02ATL-XG	Copper Cable, Industrial, Category 5e 2-pair, 24/7 AWG Stranded, SF/UTP, CMR, 600V rated, oil resistant, UV resistant, teal
	ISFCH6X04ATL-UG	Copper Cable, Industrial, Category 6A 4-pair, 24/7 AWG Stranded, SF/UTP, CMR, 600V rated, oil resistant, UV resistant, teal
	ISTPHCH1MTL	IndustrialNet™, Category 5e, shielded, 600V, RJ45 patch cord
	ISTPH6X1MTL	IndustrialNet™, Category 6A, shielded, 600V, RJ45 patch cord
20	IFRH6X04TL-UG	Industrial-rated solid conductor, Category 6A, 23/1 AWG, outdoor, F/UTP, PVC jacket - oil and sunlight resistant, flame retardant, teal color (TL)
21	ICAM12DRJS	Category 5e, M12 D-code to RJ45 industrial adapter, panel mount
	ICAM12XRJS	M12 X-Code Female to RJ45 Jack, industrial adapter, panel mount
	ISPS5E44MFA	IndustrialNet™, 4-position, M12 D-code plug
	ISPS6A88MFA	IndustrialNet™, 8-position, M12 X-Code plug
	FPS6X88MTG	TX6A Shielded Field Term RJ45 Plug is a simple-to-attach plug for field termination of 4-pair shielded twisted pair cable. Category 6A performance, compatible with 6 & 5e shielded systems.
	FP6X88MTG	TX6A UTP Field Term RJ45 Plug, 22-26 AWG, for field termination of 4-pair twisted pair cable. Category 6A performance, compatible with 6 & 5e systems.
22	PUP6AHD04BU-G	Vari-MaTriX HD Category 6A Copper Cable, Plenum (CMP), UTP, with 0.23" outside diameter

*Network Zone Enclosures available in mild steel, stainless steel in various configurations. For an expanded product offering visit the online catalog at panduit.com.

About this Configuration

Panduit offers a reliable end-to-end network physical layer infrastructure from the enterprise to the edge that simplifies network deployment in manufacturing environments.

Connecting Enterprise to the Plant Floor

The Micro Data Center (MDC) is the hub of a network deployment containing servers, switches, and other active gear.

- Preconfigured micro data center cabinet with cabling
- Different sized network/server racks and cabinets
- Patching and cable management
- Network physical security
- Identification and color coding
- Grounding and power

Distributing Ethernet Throughout the Plant Floor

Solutions and products to connect MDC, switches, controllers, and other active gear.

- Network Zone Enclosures
- Pre-configured Industrial Distribution Frame (IDF)
- Industrial pathways like J-Hooks and Wire Basket
- Full line of industrial copper and fiber cable

Connecting Machines and Devices to Plant Floor Architecture

A full set of products to accommodate any panel design for both new and retrofits, especially sensitive network cabling.

- Cable management and protection
- Connectors and terminals
- EMI protection
- Cable entry systems (IP rated)
- Networking
- VeriSafe™ Absence of Voltage Tester (AVT)

Deploying Ethernet on Machine

Products to manage cabling in a harsh environment.

- Network Zone Enclosures
- Harsh cable protection and bundling
- Harsh connectors and terminals
- Safety and identification

Strengthening the Network from the Ground Up

Products to distribute power and grounding, including safety and identification.

- Power terminals
- Ground distribution
- LOTO and labeling

For more information contact your local distributor, Panduit Sales Representative, or the Panduit Industrial Network Infrastructure team at networkinfrastructure@panduit.com.