



**Powerflex Xcel™**  
*Modular Electrical System*

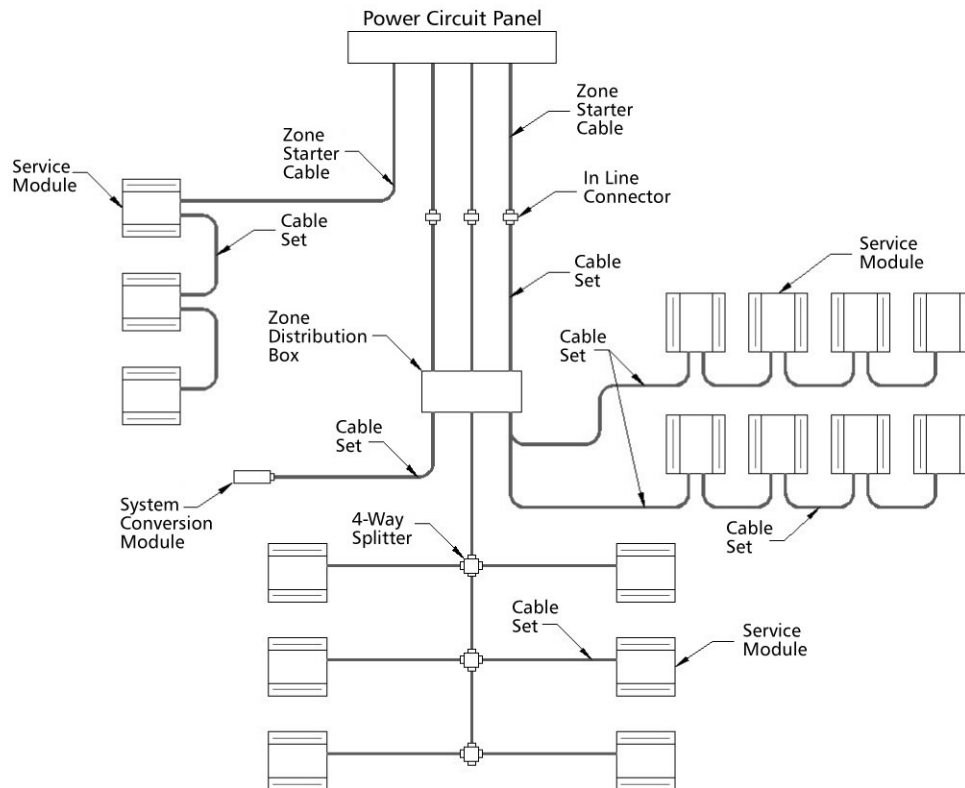
**System Summary**

Each floor plan utilizing Cablefloor and Powerflex Xcel is divided into zones that are serviced by Zone Distribution Boxes. Up to 12 circuits are distributed with Zone Distribution Starter Cables, Circuit Cable Sets and In-Line Connectors from the building circuit panel to the Zone Distribution Boxes. The circuits are then distributed from each Zone Distribution Box via Circuit Cable Sets and Circuit Cable Splitters to service access locations within each zone. Service Locations can be:



- Powerflex Xcel Service Modules
- Constructed wall, hard wired receptacles
- Electrified modular furniture or modular wall systems

The Powerflex Xcel quick connect or “plug and play” method of electrical power distribution facilitates fast, efficient installation and even great efficiency for future moves, additions, and changes. Coupled with documentation of all under floor system components provided by Cablematrix Planning, it is a simple matter for users to identify required changes or additions within any zone, and complete them within a fraction of the time and cost associated with traditional wiring and power distribution methods.

**Powerflex Xcel Component Relationships**



## Powerflex Xcel Component Description and Application

All components of the Powerflex Xcel Modular Electrical System are UL/CUL listed per UL183 – Manufactured Wiring Systems, UL5 – Multi-Outlet Assemblies, or UL514A – Metallic Outlet Boxes and are approved for environmental air handling spaces other than ducts or plenums.  

### Zone Starter Cables

- Hardwired to building circuit panel to begin circuit distribution to Zone Distribution Boxes
- Combined with Circuit Cable Sets and In-Line connectors to create Zone Distribution Cables of any length in 5 foot increments
- Manufactured cabling components assembled with 5/8 In. AFO flexible oval conduit; a 6 or 8 – pin male connector on one end and a 6 or 8-wire pigtail on the opposite end
- Contains six or eight wires and two, three, or four circuits
- Available in 5ft, 10ft, 15ft, 20ft, 25ft and 50ft lengths

### Zone Distribution Box

- Central component in a modular zone power distribution system
- Fully quick connect utilizing both Zone Distribution Starter Cables, Circuit Cable Sets and In-Line Cable Connectors to receive power from building supply and Circuit Cable Sets to distribute to Service Modules or Conversion Modules
- 4, 8 or 12 circuits are delivered to a Zone Distribution Box and routed within a designated floor plan zone with 4, 3 or 2 Circuit Cable Sets and Circuit Cable Splitters

### Circuit Cable Sets

- Combine with Zone Starter Cables and In-Line Connectors to deliver building circuits from circuit panel to Zone Distribution Boxes.
- Distribute circuits from Zone Distribution Box to Modular Service Access Components
- Pre-manufactured cabling components with 5/8 AFO flexible oval conduit and an 8-pin male connector on both ends
- Contains six or eight wires and two, three, or four circuits
- Available in 5ft, 10ft, 15ft, 20ft, 25ft and 50ft lengths (**50ft Cable Sets are for use in Modular Zone Distribution Cable Runs only**)

### Circuit Cable Splitter

- Interconnects up to four Circuit Cable Sets
- Used to add multiple service access locations to individual Circuit Cable runs originating at the Zone Distribution Box

### In-Line Cable Connector

- Used to interconnect Circuit Cable Sets and Zone Starter Cables to create continuous Zone Cable runs between 25ft and 50ft in length and over 50ft in length from building circuit panel to Zone Distribution Boxes.

### System Conversion Module

- Provides hardwire interface between Powerflex Xcel system and other 6 and 8 wire systems in modular furniture and walls or hardwired receptacles in walls constructed on top of Cablefloor

### Service Modules

- Provides protected in-floor service access for power, data, voice and video terminations
- Utilizes universal faceplate system for mounting power outlets and network access devices
- Specifically engineered for compatibility with the Cablefloor system
- Prewired modules have internal 6 or 8-wire in and out connectors and programmable outlets designating access to either circuit number I, II, III or IV within the Powerflex Xcel System.

**Powerflex Xcel System Options**

The ultimate in fast and easy installations, additions or reconfigurations, Powerflex Xcel systems have oversize, 10 gauge neutrals, and both isolated and system grounds. Four-circuit, three-circuit and two-circuit electrical system options provide maximum flexibility.

Components are rated for 20 amp circuits and factory tested to 600 volts. Zone distribution, up to 12 circuits, provides additional capacity and flexibility for future requirements.

<b>Three 8-wire and one 6-wire, 20 AMP electrical systems are offered</b>					
<b>Electrical System</b>	<b>Circuitry</b>	<b>Receptacle Designation</b>			
<b>Configuration A</b> Four – circuit 4 Hot / 2 Neutral / 2 Ground (10 gauge neutral wires)	3 + 1	Common Circuit - 1	Common Circuit - 2	Common Circuit - 3	Iso/Dedicated Circuit - 4
	2 + 2	Common Circuit - 1	Common Circuit - 2	Dedicated Circuit - 3	Dedicated Circuit - 4
<b>Configuration B</b> Three – circuit 3 Hot / 3 Neutral / 2 Ground (12 gauge wires)	2 + 1	Common Circuit - 1	Common Circuit - 2	Iso/Dedicated Circuit - 3	N/A
<b>Configuration D</b> Two – circuit 2 Hot / 2 Neutral / 2 Ground (12 gauge wires)	1 + 1	Isolated Circuit - 1	Iso/Dedicated Circuit - 2	N/A	N/A

**NOTE:**

- System A & B cannot be connected to C or D. Nor can C or D be interconnected.
- Components of the three systems are keyed differently to prevent components of one system being connected to components of another system.
- Powerflex Xcel catalog numbers and wiring configurations are displayed on labels.
- Outlets are modular and field installed in Flush Lid Service Modules (XFLMP). Outlets are labeled I, II, III, IV indicating access to circuit one, two, three or four in Powerflex Xcel Modular System.

