1) Introduction

Kiva Flex offers a raised floor electrical system that is made up of Power Entry Feeds, Harnesses, Zone Distribution Boxes, Deep and Shallow Floor boxes, and Receptacles. Each component, with features and options, is described in Section 3.

The Raised Floor System is a 3 phase 208 /120V 8 wire system rated 20 A per circuit. The system is available with 4 hot, 2 neutral and two grounds for a 3+D or 2+2 system or with 3 hot, 3 neutral and 2 grounds for a 3-3-2 system. The systems can also be configured for use in a single phase 240 / 120V system.

All components of the raised floor electrical system are UL/CUL Listed per UL183 – Manufactured Wiring Systems, UL5 - Multi-Outlet Assemblies, or UL514A - Metallic Outlet Boxes and are completely compatible with all Byrne Electrical Specialists 8-Trac System components.

The Raised Floor System is approved for environmental air handling spaces other than ducts or plenums.

Taken together, all the components provide a high capacity, highly flexible raised floor electrical solution, suitable for any and all applications where raised floors are used.
2) Application Overview

The Kiva Flex modular wiring system for raised floor applications is based upon the Byrne 8-Trac 8-wire product line used worldwide for office furniture products and systems.

A typical raised floor system consists of Power Distribution Boxes, Harnesses, and Floor Boxes.

Power is distributed using Zone Distribution Boxes, which can be located up to two hundred feet from the power source (electrical panel). The Zone Distribution Boxes provide modular connectors for distributing power to Floor Boxes and/or transition harnesses to above-floor furniture systems.

Multiple modular connectors in the floor boxes allow for efficient use of modular harnesses to connect floor boxes.

Often the system layout requires multiple connections and/or connections to above-floor furniture systems. For these applications, additional components of the Byrne 8-Trac Electrical System are available to complete the power distribution system.

**Zone Distribution Boxes**

Zone Distribution Boxes are available as a wired box in lengths up to and including 200 feet. Zone Distribution Boxes have 3 feeds in lengths up to and including 125 feet and 2 feeds in lengths from 150 feet to 200 feet. Zone Distribution Boxes are also available as a field wired distribution box.

The Zone Distribution Boxes have 10 gage wire in lengths up to and including 125 feet and 8 gage wire in lengths from 150 feet to 200 feet and utilize 1 1/4 inch flexible conduit.
Deep Floor Boxes

The Deep Floor Boxes are available as a Modular Box, a Pre-Wired Box and a Field Wired Outlet Box. The Deep Floor Boxes are able to utilize 4 duplex receptacles.

The Deep Floor Boxes have two openings for telecommunication jacks that utilize TIA Standard Furniture Faceplates and also have knockouts in those openings for telecommunications jacks that utilize NEMA size brackets. Two blank faceplates are installed in each deep floor box. Two Adapter Plates and two Adapter Kits are provided with each Deep Floor Box.

The Deep Floor Box covers have 12 cable access notches, 6 per side on opposing sides and have cable managers to hold the cables in place while the cover is open. The covers are hinged on both sides perpendicular to the sides with the cable access notches. The covers can also be lifted off completely without the use of tools.

The Deep Floor Box fits into a 10 1/2 X 10 1/2 hole with a minimum of 4 3/8 inch depth.

Shallow Floor Boxes

The Shallow Floor Boxes are available as a Field Wired Outlet Box, a Pre-Wired Box and a Modular Box. The Shallow Floor Boxes are able to utilize 2 duplex receptacles.

The Shallow Floor Boxes have two openings for telecommunication jacks that utilize TIA Standard Furniture Faceplate. Two blank faceplates are installed in each Shallow Floor Box. Two Adapter Plates and two Adapter Kits are provided with each Shallow Floor Box.

The Shallow Floor Box covers are the same as the Deep Floor Box.

The Shallow Floor Box fits into a 10 1/2 X 10 1/2 hole with a minimum of 2 1/2 inch depth.
**Power Entry Feeds**

Power Entry Feeds are available in lengths up to and including 50 feet. The Power Entry Feeds are available in standard 12 / 10 gage construction or all 10 gage construction.

![Power Entry Feeds Image](image1)

**Jumpers**

Jumpers are available in lengths up to and including 50 feet. The Jumpers are available in standard 12 / 10 gage construction or all 10 gage construction.

![Jumpers Image](image2)

**Modular Receptacles**

Modular Receptacles are molded out of a special glass filled nylon. The receptacles are available in black only in 15 A and 20 A configurations.

![Modular Receptacles Image](image3)
3) Zone Distribution Boxes Part Number Configurations

2-Port Zone Distribution Box
KV08910-X-X-X
Keying
No. of Ports
Length

3-Port Zone Distribution Box
KV08914-X-X-X
Keying
No. of Ports
Length

Field-Wired 3-Port Zone Distribution Box
KV08913-X-X
Keying
No. of Ports

Deep Modular Floor Box
KV08902-X
Keying

Deep Pre-Wired Floor Box
KV08957-X-X-X-X-X
Keying
Duplex A
Duplex B
Duplex C
Duplex D

Deep Field-wired Floor Box
KV08955

Shallow Modular Floor Box
KV08905-X
Keying

Shallow Pre-Wired Floor Box
KV08928-X-X-X
Keying
Duplex A
Duplex B

Shallow Field-Wired Floor Box
KV08926
KVZDB(*) - Zone Distribution Box

Description:

14.125” x 8.25” x 17.75” H
Provides secondary consolidation of building circuits within designated floor plan zones. For distribution to Floor Boxes or System Conversion Modules.

3 input connections and 6 output connections
Requires use of 1 to 6 factory assembled XCS Cable Sets for out put and 1 to 3 KVZSC Zone Starte Cables for in put.

Up to 12 circuit capabilities using 4 circuit, 8 wire cabling.

Removable lid with four screws

9 female connectors

KVSCM(*) - System Conversion Module

Description:

KVSCM is used as the transition from KIVA Electrical sysytem to other manufactured electrical systems in modular furniture, movable wall products, and contractor installed access boxes in walls constructed on or adjacent to KIVA.

One female 8 - pin connector

One 1/2” or 3/4” combination knockout

KVILC - In-Line Connector

Description:

Connects two Cable Sets or Zone Starter Cable and Cable Set in-line.

Used primarily to create starter cable runs of any length, in 5 foot increments, to deliver power from building circuit panel to KVZDB Zone Distribution Box.

Two female (1 in / 1 out) 8 sleeve connectors.
M/M Non Adj. Jumper
(10/12 Gage)
KV08177-X-X
Keying ___
Length ___

Power Entry Feed
(10/12 Gage)
KV08092-X-X
Keying ___
Length ___

"H" Connector
KV08299-X
Keying ___

15 A Duplex Receptacle
KV08065-X-A-X-9E-EAH
Keying ___
Circuit ___

20 A Duplex Receptacle
KV08498-X-C-X-9E-EAH
Keying ___
Circuit ___

M/M Non Adj. Jumper
(10 Gage)
KV08965-X-X
Keying ___
Length ___

Power Entry Feed
(10 Gage)
KV08964-X-X
Keying ___
Length ___