



## FLX-PS24

### DESCRIPTION

The **FLX-PS24** power supply module is designed to deliver reliable and consistent output power to the Field Level eXpansion I/O modules. Additionally, the **FLX-PS24** can be used to extend the distance between the remote mounting of **FLX** I/O modules and Cylon's **CBXi** or **CBX** BACnet® field controllers. The power supply module can also be used to power field devices that require DC power when connected to the **CBXi** and **CBX** controllers.

The **FLX-PS24** carries inter-module communications from the **CBXi** to enable connection of additional **FLX** I/O modules, increasing the capacity of the **CBXi** to 96 points. It can also be used to facilitate remote locating of **FLX** I/O modules in a **CBXi** or **CBX** system. Each power supply module can deliver power for loads up to 20 W. The consumption of downstream **FLX** I/O modules and field devices can vary. The Power Consumption table can be used to calculate the consumption of the **FLX** I/O modules.

The power supply module facilitates flexible mounting of the **CBXi** or **CBX** and its associated **FLX** I/O modules either in a single row or multiple rows using the **FLX-RMC** Remote Module Connector.

#### Provides power to Field Level eXpansion I/O modules using simple bus connectors

24 V AC or DC input  
20 Watts / 1 Amp

#### Extends distance for remote mounting of FLX I/O modules

**FLX-PS24** unit can be used to supply power to field devices connected to the **CBXi** or **CBX** BACnet field controllers

#### Compact form factor to maximize enclosure space

DIN 43880 type-2 compatible

**Diagnostic LED** indicates status of main power and if the power supply output and unit temperature is within proper range

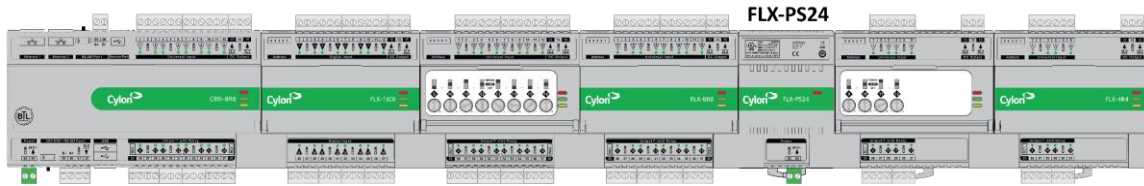
#### Built-in overload protection

#### Accessories

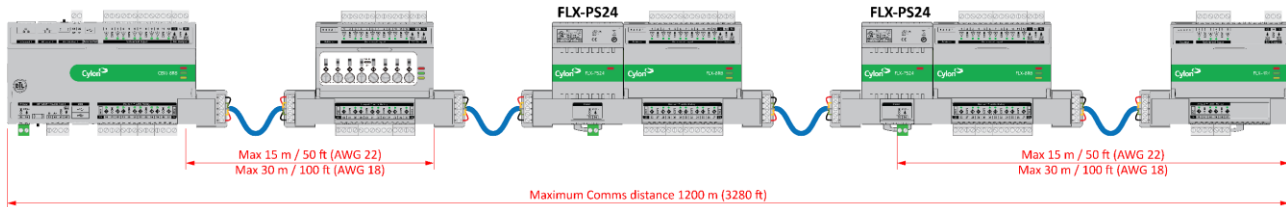
**FLX-RMC** Remote Module Connector includes two bus connectors with terminal strip to extend the **FLX** bus and for 20 V DC supply to power external field devices

## APPLICATION

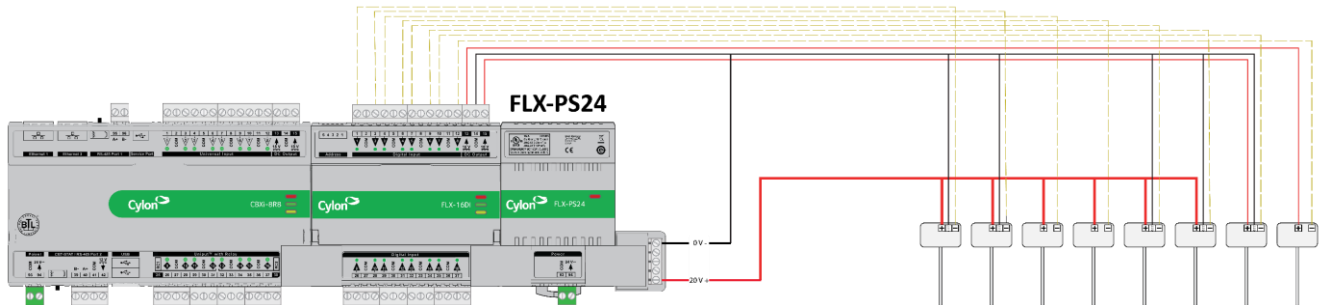
FLX-PS24 allows the CBXi trunk to be expanded beyond 3 FLX I/O modules to a maximum of 5:



FLX-PS24 facilitates remote connection of FLX I/O modules to CBXi or CBX to a maximum overall length of 1200 m (3280 ft). Each FLX-PS24 can power a bus segment of up to 30 m (100 ft):



FLX-PS24 can provide 20 V DC DIN rail-mounted power supply for external field devices using the FLX-RMC:



The number of FLX I/O modules that can be powered by a FLX-PS24 depends on the model and loading of the individual FLX I/O modules. Any combination where the total full-load power is less than 20 W can be used. The Power Consumption table below shows the power load of each FLX I/O module:

Part Number	Power consumption when fully loaded
FLX-4R4	3.8 W
FLX-4R4-H	3.9 W
FLX-8R8	4.9 W
FLX-8R8-H	5 W
FLX-16DI	3.2 W

Notes:

1. A maximum of 5 FLX I/O modules may be connected to a CBXi Series controller.
2. A maximum of 3 FLX I/O modules may be connected to a CBX Series controller.
3. If any FLX I/O module's Aux Power is not used, the budgeted 1.2 watts (20 V @ 60 mA) for that FLX will be available to allow additional field devices to be connected to the FLX-PS24.

## SPECIFICATIONS

### MECHANICAL

Size (excluding terminal plugs)	62.5 x 89.5 x 57 mm [2.5 x 3.5 x 2.24"]
Enclosure	Flame-Retardant ABS DIN 43880 type-2 compatible
Mounting	DIN rail

### CONNECTION

**Note:** Use Copper or Copper Clad Aluminum 70 °C (158 °F) conductors only.

Terminals	PCB mounted plug terminal connections
Conductor Area	Max: AWG 12 (3.31 mm <sup>2</sup> ) Min: AWG 22 (0.355 mm <sup>2</sup> )

### ELECTRICAL

Supply Requirements	24 V AC/DC ±20 % 50/60 Hz
Supply Rating	50 VA
Output	20 V DC @ 1 A (20 W)
FLX Power Connection	FLX bus connector provides power to connected FLX i?o modules, while passing through FLX bus communications between left and right connectors.

### COMMUNICATIONS

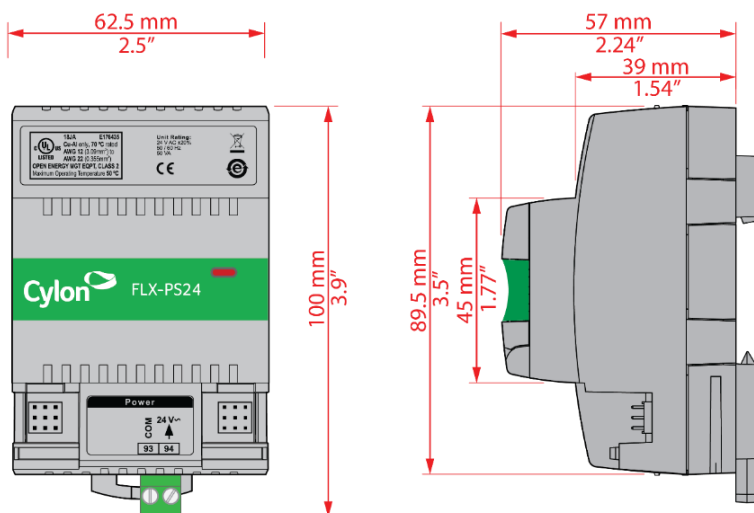
FLX bus	115.2K Baud (passed through FLX-PS24) Max bus length (including extension cables): 30 m / 100 ft. using 18 AWG conductors 15 m / 50 ft. using 22 AWG conductors
FLX bus Connection	FLX bus connector carries inter-module communications

### ENVIRONMENT

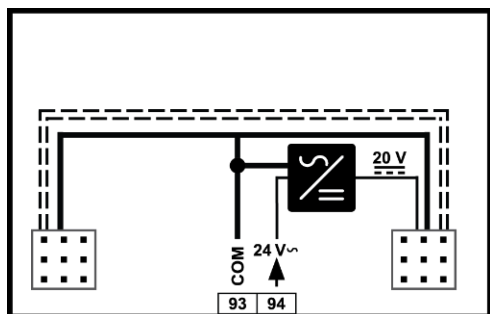
**Note:** This equipment is intended for field installation within an enclosure.

Ambient Temperature	-25 °C ... 50 °C (-13 °F ... 122 °F)
Ambient Humidity	0% ... 90% RH non-condensing
Storage Temperature	-30 °C ... +70 °C (-22 °F ... 158 °F)
EMC Immunity	EN 61326-1: 2013
EMC Emission	EN 61326-1: 2013 EN 61000-3-2: 2014 EN 61000-3-3: 2013
Approvals	UL Listed (CDN & US) UL916 Energy Management Equipment – File No. E176435
Safety	CE Approved

### DIMENSIONS



### WIRING



# SYSTEM ARCHITECTURE

