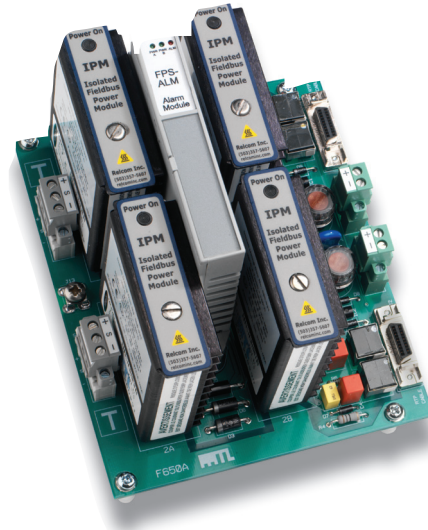




# F650A

redundant power system for use with Honeywell Experion PKS FIM

- Integrated redundant fieldbus power system for Honeywell control systems
- Replace power modules without interrupting the fieldbus
- High power output
- Two levels of power redundancy
- Component failure alarm
- Integrated fieldbus terminators



**The F650A is designed to provide redundant fieldbus power conditioners** for the Honeywell Experion PKS Fieldbus Interface Module (FIM), supporting two H1 fieldbus segments. Each F650A includes two FPS-IPM plug-in power modules for each of the fieldbus segments. These modules function as power conditioners, providing impedance between the input DC power supply and the fieldbus. This impedance is necessary to prevent the input DC power supply from degrading the digital fieldbus signal. One fieldbus segment terminator is permanently connected in each segment.

**A separate alarm module** monitors the state of each of the four power conditioning modules and the redundant power inputs. If a fault is detected on any of these components,

a red alarm LED provides visual indication of the fault and an alarm signal is sent to the Honeywell control system via the multi-way connectors. This allows failed components to be replaced so that power system integrity is maintained. The alarm circuitry is galvanically isolated from the fieldbus segments and input power supplies. Green LEDs on each power module and two input power supply LEDs on the alarm module give clear visual indication that components are functioning properly.

**The F650A has the same dimensions** as a size A Honeywell Remote Termination Panel (RTP), and is suitable for the standard mounting channel. Alternatively, the panel may be mounted on DIN rail using the DMK-HONA mounting plate, available from MTL.

**The F650A provides connections** to redundant Honeywell Experion PKS FIM's using standard Remote Termination Panel cables from Honeywell (type TC-FFC0XX). Field connections are via pluggable screw terminal connectors. For redundant operation, two separate DC power supplies should be connected to each F650A. A separate terminal is also provided to connect the fieldbus and host cable screens to a common point, such as the local cabinet ground.

## SPECIFICATION

**Location of equipment**  
Safe area

### OUTPUT

**Number of channels**  
Two

**Voltage**  
Minimum 25.0V DC

**Current**  
0 to 350mA

**Output ripple**  
Complies with clause 22.6.2 of the fieldbus standard

**Minimum load**  
No load

**Isolation**  
Fieldbus to power supply: 250V AC rms withstand

### INPUT

**Input voltage**  
19.2 - 30V DC

**Current consumption (2 segments each with 350mA output load)**  
1.7A (typical) at 18V  
1.2A (typical) at 24V  
1.1A (typical) at 28V

**Power dissipation (2 segments each with 350mA output load)**  
10.7W (typical)

### ALARMS

**Alarm threshold:**  
Either 24V DC input <18V DC  
Either IPM output to fieldbus <22V DC  
Alarm signalled to Honeywell control system via RTP cables.  
(No separate alarm wiring necessary)

### MECHANICAL

**Mounting method**  
Standard Honeywell channel (size A) or DIN rail using  
DMK-HONA mounting plate

**DIN-rail types**  
'Top hat', 35mm x 7.5mm or 35mm x 15mm to EN50022

**Alarm Contact Terminals**  
Fixed rising cage clamp screw terminals  
Conductor size: 0.14 to 2.5mm<sup>2</sup>

**Fieldbus Terminals**  
Two-part pluggable connector with fixed rising cage clamp screw  
terminals  
Conductor size: 0.14 to 2.5mm<sup>2</sup>

**Power Input Connections**  
Standard Honeywell FTA power connectors

**System Connections**  
Redundant Connections: standard cables to Experion Fieldbus  
Interface Module.  
Screen Ground: to connect all fieldbus cable screens  
to a common point (cabinet earth).

**Terminators**  
Fixed terminator for each fieldbus segment

## ENVIRONMENTAL

**Ambient temp**  
**Operating, optimum orientation\***  
-40°C to +65°C

**Storage**  
-40°C to +85°C

**Ingress Protection**  
IP20 to BS EN 60529 (Additional protection by means of  
enclosure)  
\*Optimum orientation is when the RTP is mounted on a vertical  
surface with the IPM modules in a vertical orientation

## ELECTRICAL

**EMC compliance**  
To EN61326:1998 Electrical equipment for measurement, control  
and laboratory use - EMC requirements

## PHYSICAL NETWORKS

IEC61158-2  
Foundation™ Fieldbus H1

## ORDERING INFORMATION

The F650A-LS Redundant fieldbus power supply system includes the  
following component parts: (see component part numbers below):

4 x **FPS-IPM**  
1 x **FPS-ALM**  
1 x **F650A-CL-PS**

## COMPONENTS AND ACCESSORIES

PART No	DESCRIPTION
FPS-IPM	Power Module
FPS-ALM	Alarm Module
F650A-CL-PS	F650A Carrier, Screw Terminals
DMK-HONA	Size A FTA mounting plate
FPS-BLK10	Blanking Module (pack of 10)

The given data is only intended as a product description and should not be regarded as a legal warranty of properties or guarantee. In the interest of further technical developments, we reserve the right to make design changes.



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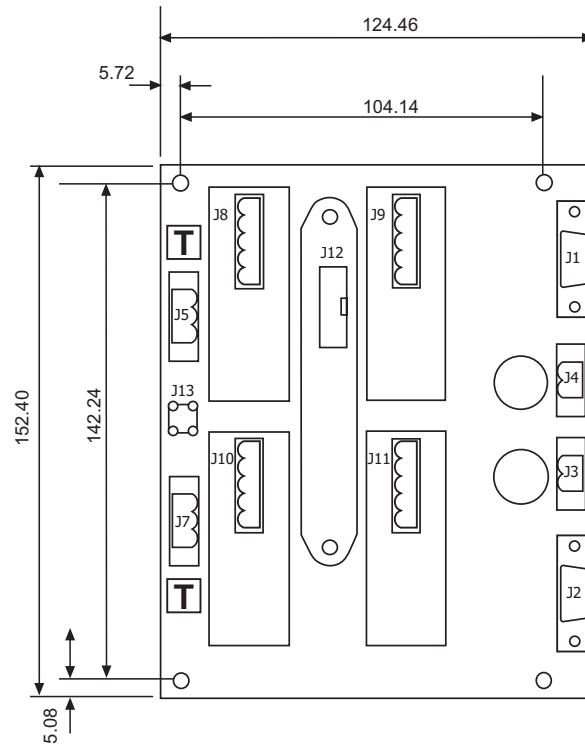
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EPS-F650A Rev1 090410

# F650A REDUNDANT POWER SYSTEM

## F650A DIMENSIONS (mm)



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