



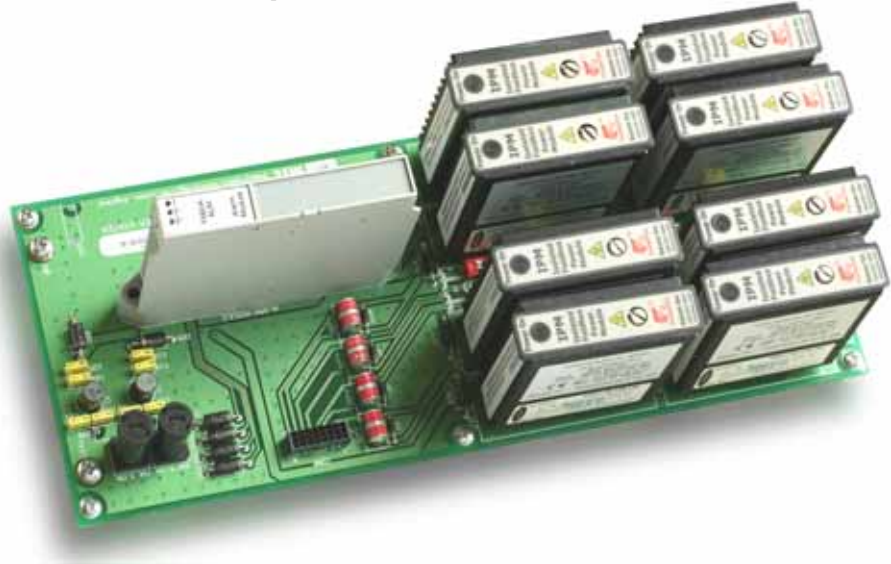
Relcom Inc.



Redundant power supply for use  
with Honeywell Experion  
"Series C" 4-link FIM

# F660A

redundant fieldbus power IOTA



- ◆ Size B IOTA format
- ◆ Redundant power for 4 fieldbus links
- ◆ Component failure alarms
- ◆ Integrated, switchable terminators
- ◆ Replace power modules without interrupting the fieldbus

**The F660A is designed** to provide redundant power for four H1 fieldbus links when used with Honeywell Experion "Series C" Fieldbus Interface Modules (FIMs). The module carrier complies with the mechanical and electrical requirements of Size B I/O Termination Panels (IOTAs), for direct fitting into Honeywell mounting channel. The F660A includes two FPS-IPM plug-in power modules for each of the four fieldbus links. These modules function as power conditioners, providing impedance between the input DC power supply and the fieldbus. A switchable fieldbus segment terminator is provided for each fieldbus link.

**MTL-Relcom redundant fieldbus** power supplies (FPS-Series) form the basis of the F660A and provide redundant power conditioning for the fieldbus network segments. The system is fully 'hot-swappable' meaning that individual power conditioning modules can be replaced without interrupting power or communication on the fieldbus segment.

**Each power module provides** galvanic isolation of 250V AC between the fieldbus segment and the input power supplies. Each segment is supplied with 350mA at 25V DC. This output is maintained, even if only one power module is installed per segment. This level of output power allows for construction of very long fieldbus segments with a large number of bus-powered transmitters.

**Power for the IOTA** is picked up via mounting screws from 24V DC busbars that are embedded in the mounting channel. Two separate 24V DC power trains are derived on the IOTA, each protected by a

replaceable fuse, to provide reliable bulk power to the redundant conditioning modules.

**A separate alarm module** monitors the state of each of the eight power conditioning modules and the 24V DC power input. In the event of a failed conditioning module, the FIM receives a signal indicating which segment is affected, and a red LED on the alarm module illuminates. Failure of either of the power supply fuses initiates an alarm across all four fieldbus segments. Green LEDs on each power module, and two input power supply LEDs on the alarm module give clear visual indication of the health of each system component.

**The F660A has a multi-pin connector** for direct connection to the FIM IOTA by means of a standard system cable, available from MTL. Different lengths are available to accommodate mounting of the F660A, and its respective FIM IOTA, in various locations within a Series C I/O cabinet. Field wiring is connected at the FIM IOTA.

**For fieldbus segments that do not require** the high availability provided by redundant power conditioning, the F660A-NR should be specified. Each segment of the F660A-NR is powered by a single IPM module. Unwanted alarm signals are suppressed by blanking modules that are installed in the unused module slots. Alternatively, individual segments of an F660A system may be operated in non-redundant mode by replacing one IPM per segment with a blanking module. These are obtainable in a pack of 10 as part number FPS-BLK10.



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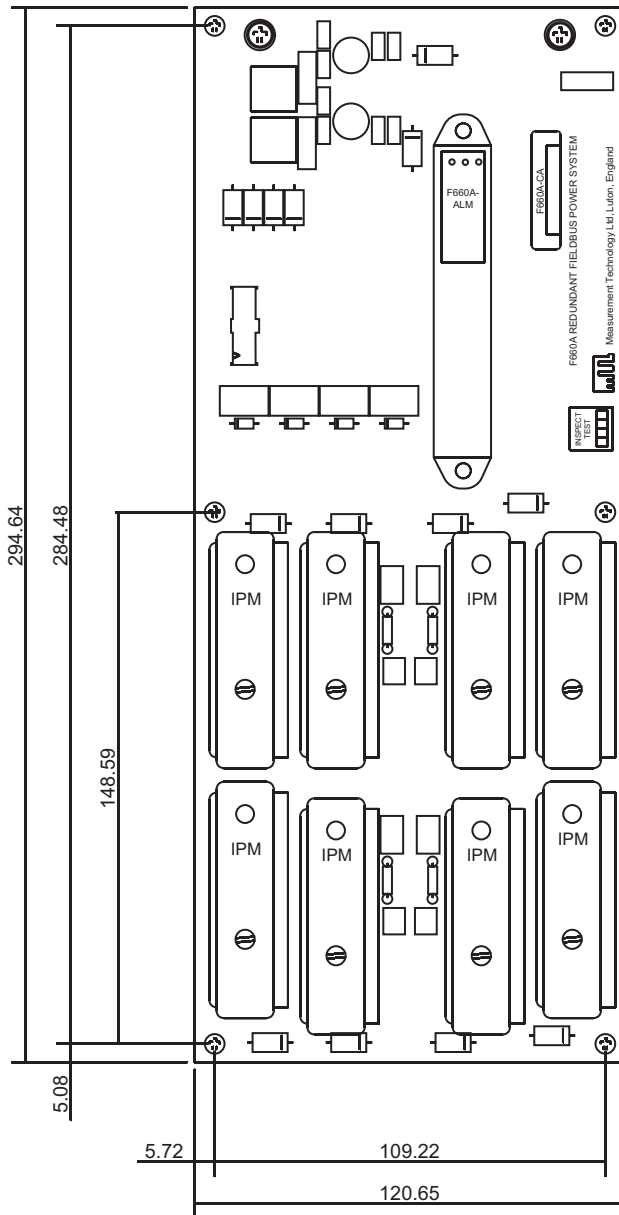
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# IOTA DIMENSIONS



## SPECIFICATION

### Location of equipment

- Safe area
- Zone 2, IIC T4 hazardous area (approval pending)
- Class I, Division 2, Gps A-D T4 hazardous area (approval pending)

### OUTPUT

#### Number of channels

Four

#### 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 (4 segments each with 350mA output load)

- 3.4A (typical) at 18V
- 2.4A (typical) at 24V
- 2.2A (typical) at 28V

### ALARMS

Failure alarm signal (per link) via system connector

### MECHANICAL

#### Mounting method

Standard Honeywell channel (size B)

#### Power Input Connections

Via mounting screws onto bus bar

#### Terminators

Switchable 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 IOTA 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 F660A Redundant fieldbus power supply IOTA includes the following component parts: (see component part numbers below):

- 8 off FPS-IPM
- 1 off F660A-ALM
- 1 off F660A-C

The F660A-NR Non-Redundant fieldbus power supply IOTA includes the following component parts: (see component part numbers below):

- 4 off FPS-IPM
- 1 off F660A-ALM
- 1 off F660A-C
- 4 off FPS-BLK

### COMPONENTS AND ACCESSORIES

Part No	Description
FPS-IPM	Power module
F660A-ALM	Alarm module
F660A-C	F660A IOTA, unpopulated
FPS-BLK10	Blanking module type FPS-BLK, pack of 10
FCAB-05	IOTA power cable, 30cm
FCAB-06	IOTA power cable, 1m
FCAB-07	IOTA power cable, 2m
FCAB-08	IOTA power cable, 4m

