

PSM01

POWER MANAGEMENT MODULE

DS-001 Issue 04



Thank you for your interest in Zitel - we are a UK based manufacturer of PAGA and Intercom products. Our systems are mainly designed for use in the Hazardous Oil, Gas and Petrochemical industries.

PSM01 Power Manager allows bridging of two DC supply inputs to enable continued secure power supply in a high integrity PAGA application.

On board fusing reduces host panel discreet wiring and improves reliability and simplifies maintenance.

An optional remote LED status panel facility speeds fault location in event of power system trouble

ZITTEL PSM-01

Solid-state no-break autonomy – Eliminates relay changeover contacts

On board fuse protection – Simplifies cubicle wiring

Optional Remote LED status control – Simplifies service

Background

A Zitel PAGA can be energized from an A.C. mains supply, in this execution an A.C. to D.C. conversion subsystem is embedded in the central rack. The A.C. to D.C. convertor package is selected to suit the power requirements of the target audio power amplifier consumers.

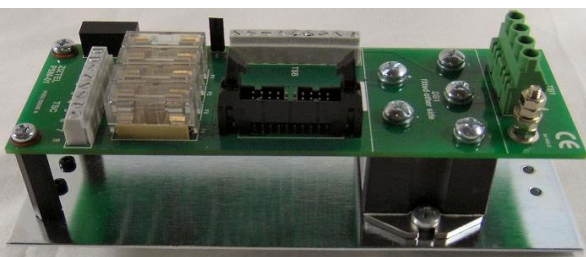
Zitel compact power unit type GFR1KS convertor is employed for systems with relatively modest power requirements and is selected for a rack fitted with up to three amplifier modules type 350A.

Zitel ZAPSU-01 is a 1U 19 inch rack linear power supply module that is capable of energising up to four amplifier modules type 350A and incorporates a no break battery input.

Zitel ZAPSU-02 is a 1.5U 19 inch rack linear power supply module that is capable of energising up to eight amplifier modules type 350A and incorporates a no break battery input.

Power management module PSM-01

The Zitel PSM-01 Power Management module is designed to allow supervised bridging of multiple DC mains supply inputs and is used in conjunction with the compact power supply option thereby enabling either a) dual compact power supply configuration or b) no break battery autonomy. The PSM-01 also carries critical path monitoring



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and fused output distribution to rack power consumers: - example a 350A power amplifier sub rack.

When used in conjunction with a battery supply input (as the secondary supply) the PSM-01 also allows connection of the monitoring facility from the Ziztel PB600-48 charger.

An optional separate LED status indicator board is available to enable convenient viewing of each power supply input / output extended from the PSM-01.

PSM-01 termination I/O

There are two DC power supply inputs permitted and these are landed on TB1 terminal block. (A third DC input can be landed directly on to the bridge rectifier pile for project specific applications.)

TB1 assignment

- 1 +Ve Supply 1 (A.C. derived) - Input
- 2 0V Supply 1 (A.C derived) – Input
- 3 +Ve Supply 2 (Battery or A.C. derived) – Input
- 4 0V Supply 2 (Battery derived or A.C. derived) – Input

TSB assignment

TSB is a 9 way which provides a) a volt free fault report contact and b) accepts monitoring inputs from the charger and compact power supply unit

- 1 AC healthy
- 2 AC / DC healthy
- 3 AC / DC trouble
- 4 Charging OK
- 5 Battery system output healthy
- 6 0V reference
- 7 Fault report contact wiper
- 8 Fault report contact normally closed
- 9 Fault report contact normally open

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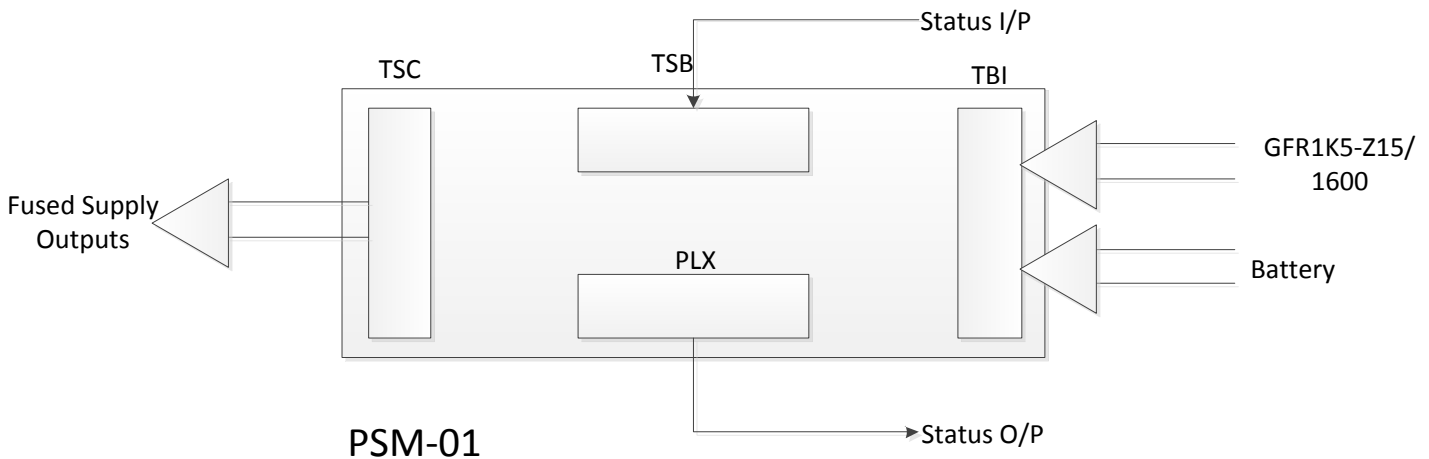
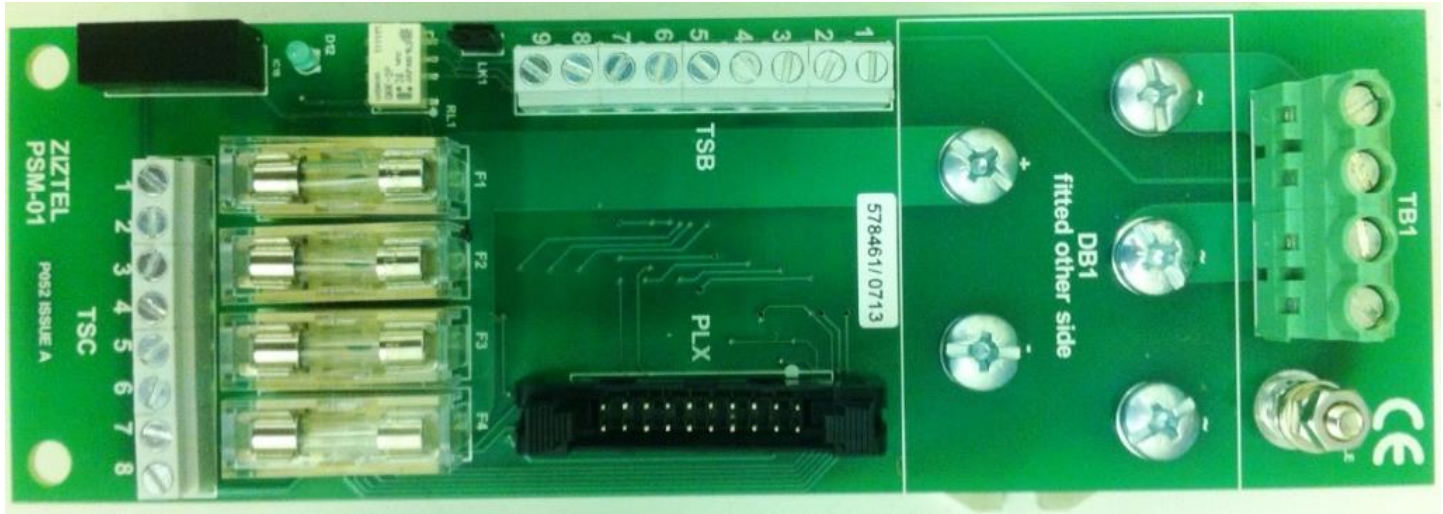
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TSC assignment

There are *four* DC power outputs and these are available on TSC terminal block.

- | | |
|---|---|
| <input type="radio"/> 1 +Ve Supply 1 – Output | <input type="radio"/> 5 +Ve Supply 3 – Output |
| <input type="radio"/> 2 0V Supply 1 – Output | <input type="radio"/> 6 0V Supply 3 - Output |
| <input type="radio"/> 3 +Ve Supply 2 – Output | <input type="radio"/> 7 +Ve Supply 4 - Output |
| <input type="radio"/> 4 0V Supply 2 – Output | <input type="radio"/> 8 0V Supply 4 - Output |



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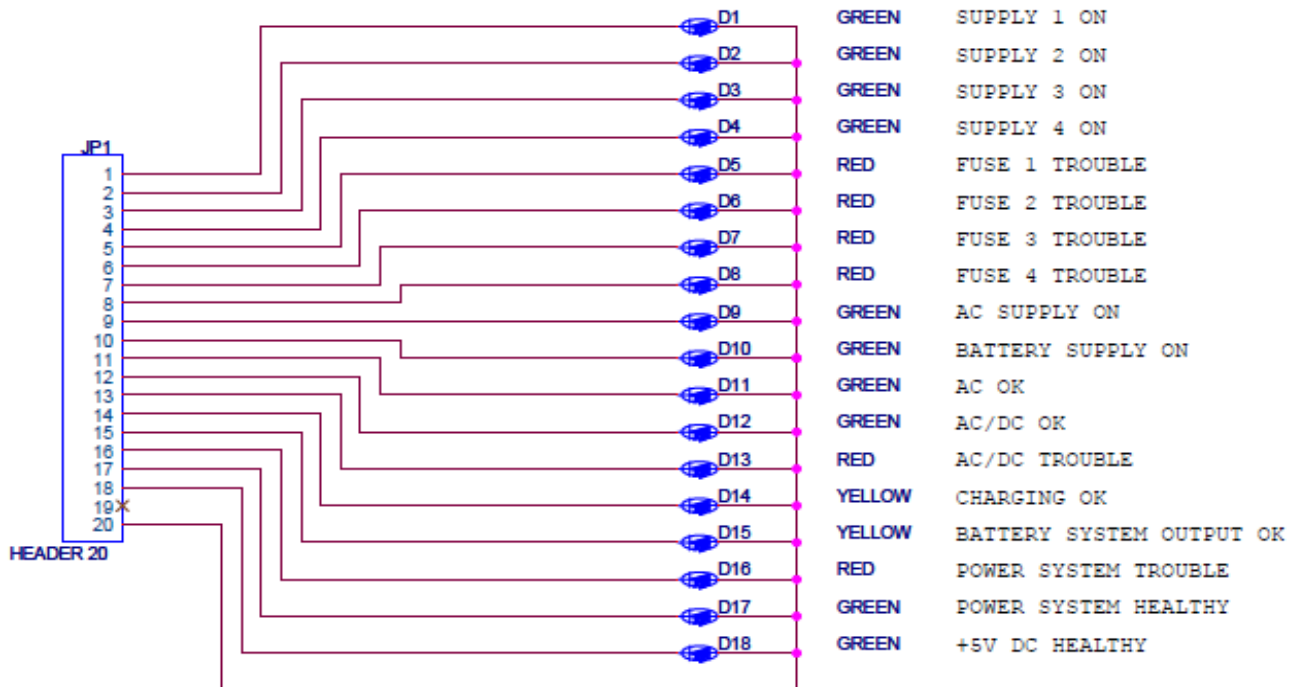
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PSM-01 display panel option

The PSM-01 is fitted with a 20 Way Ribbon Header allowing optional LED indications to be extended:-



Photo shows the PSM-01 optional display panel, 1 U high 19 inch rack mount, depth 30 mm.



Technical Specification

Supply	48V _{DC}
Outputs	4 channels
Output Rating / Channel	12 Amperes / total rating maximum is 32 Amperes.
Mounting	DIN rail mount
Termination	Up to 6mm conductors supply input, Output up to 2.5mm ² conductors.
Location	Safe Area
Temperature Range	-25 °C to +80 °C

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