Power Solutions

Power distribution providing facility-wide monitoring, management and control.

WHETHER YOU ARE MAINTAINING SYSTEM VIABILITY IN BROADCAST OR IT INFRASTRUCTURE TSL PRODUCTS DELIVERS A RANGE OF SOLUTIONS THAT HELP YOU MONITOR AND MANAGE CONNECTED EQUIPMENT TO MAXIMISE UP TIME AND ACHIEVE ENERGY SAVINGS.

TSL Products

Why Choose TSL's Power Products

TSL Products are world leaders in the broadcast market with a number of class leading solutions for Audio Monitoring, Control and Integrated Display Systems. Our solutions are in operation twenty four hours a day throughout the world.

Systems managers are increasingly faced with guaranteed up-time targets across diversely located equipment facilities. In today's cost-conscious and environmentally sensitive world, they may now also be required both to streamline maintenance and support teams, and to minimise energy consumption.

These challenges call for a comprehensive solution that – working remotely over wide or local area networks – can provide both monitoring and control of systems, and effective power management.

Intelligent Power Distribution Units from TSL Products provide just such system management and power distribution capabilities. Intelligent, intuitive and already well proven in the global market, TSL's PDU enable systems managers to monitor and control all rack-mounted equipment anywhere in the world and to manage power requirements while reducing overall costs.

TSL Products' PDU are the result of the long experience in the field of TSL's System Integration business, which over 30 years has established an enviable reputation with numerous prestigious installations worldwide

Our Power Management Solutions are suitable for a range of applications:

BROADCAST

MEDICAL

DCIM

INDUSTRIAL

TSL Products support operations throughout the whole broadcast chain

OUTSIDE BROADCAST

MASTER CONTROL

QUALITY CONTROL

PLAYOUT

TRANSMISSION

STUDIO

POST PRODUCTION SOUND

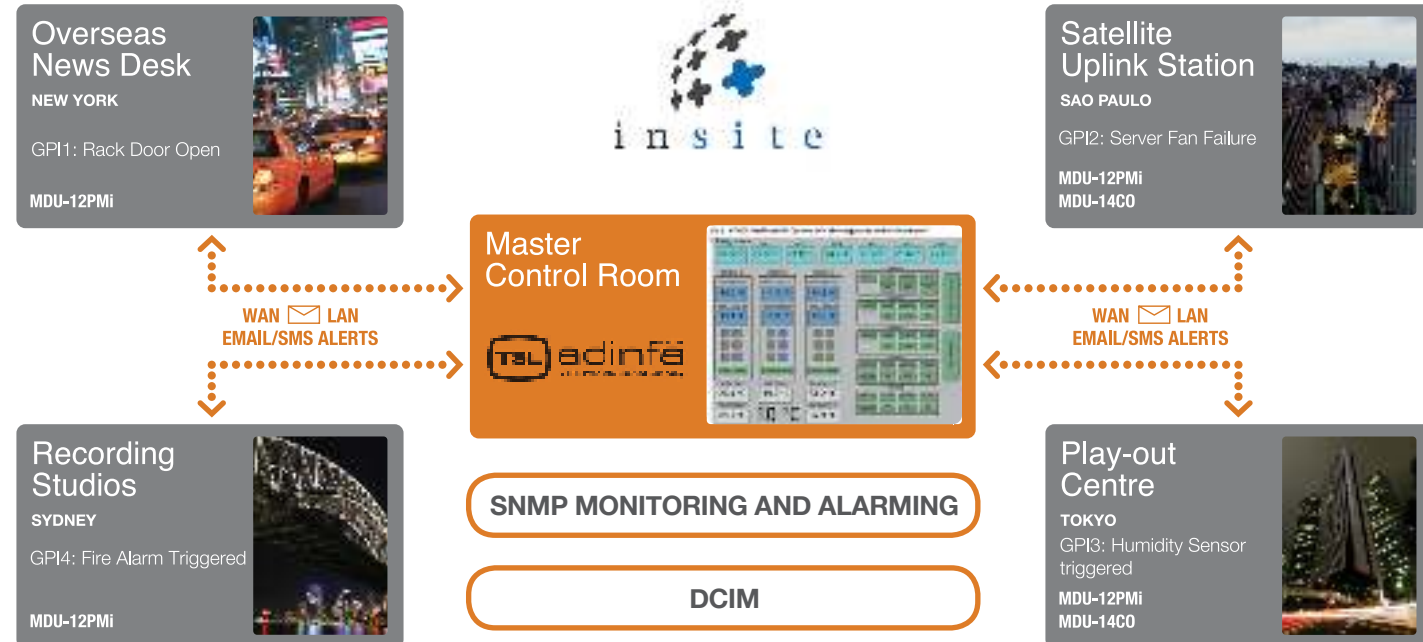POST PRODUCTION EDIT

SATELLITE NEWS GATHERING

Flexible solutions that address modern workflow challenges

Any facility that has rack-mounted equipment, be it a TV station, IT/Data Centre, Hospital or Oil Rig, can benefit from implementing an effective Power Management system. In fact, the results of metering and monitoring can generate significant power savings and improve up-time.

Whilst systems have to keep up with the ever-increasing amount of data being created, searched, retrieved and archived, the hardware and software technology behind them is being developed constantly to improve reliability, increase automation and reduce power consumption, globally.

Overseas News Desk
NEW YORK

GPI1: Rack Door Open

MDU-12PMi

Satellite Uplink Station
SAO PAULO

GPI2: Server Fan Failure

MDU-12PMi
MDU-14CO

Master Control Room

WAN LAN
EMAIL/SMS ALERTS

WAN LAN
EMAIL/SMS ALERTS

Recording Studios
SYDNEY

GPI4: Fire Alarm Triggered

MDU-12PMi

SNMP MONITORING AND ALARMING

DCIM

Play-out Centre
TOKYO
GPI3: Humidity Sensor triggered

MDU-12PMi
MDU-14CO

Our Power Management family has been designed to address the challenges faced by systems managers to effectively maintain system viability, control critical power infrastructures – over local or international networks – to meet targets and increase ROI.

Control Multiple Remote Actions
- Re-boot individual equipment, rack, or complete facility
- Alert local maintenance, accurately describing fault and rack position
- React to equipment failure by re-routing signals
- Manage and track energy consumption
- React to power outage
- Centrally power down facility for out of hours working
- Configure PMUs

Conduct Monitoring
- Equipment fuse status
- Power consumption by outlet
- Rack equipment GPIs
- Rack temperature
- Rack input voltage
- Total power consumption
- Power source, main or backup

Collect Comprehensive Information
- Email and SMS alerts for system failures or in case any pre-set variable is breached
- Real-time status information
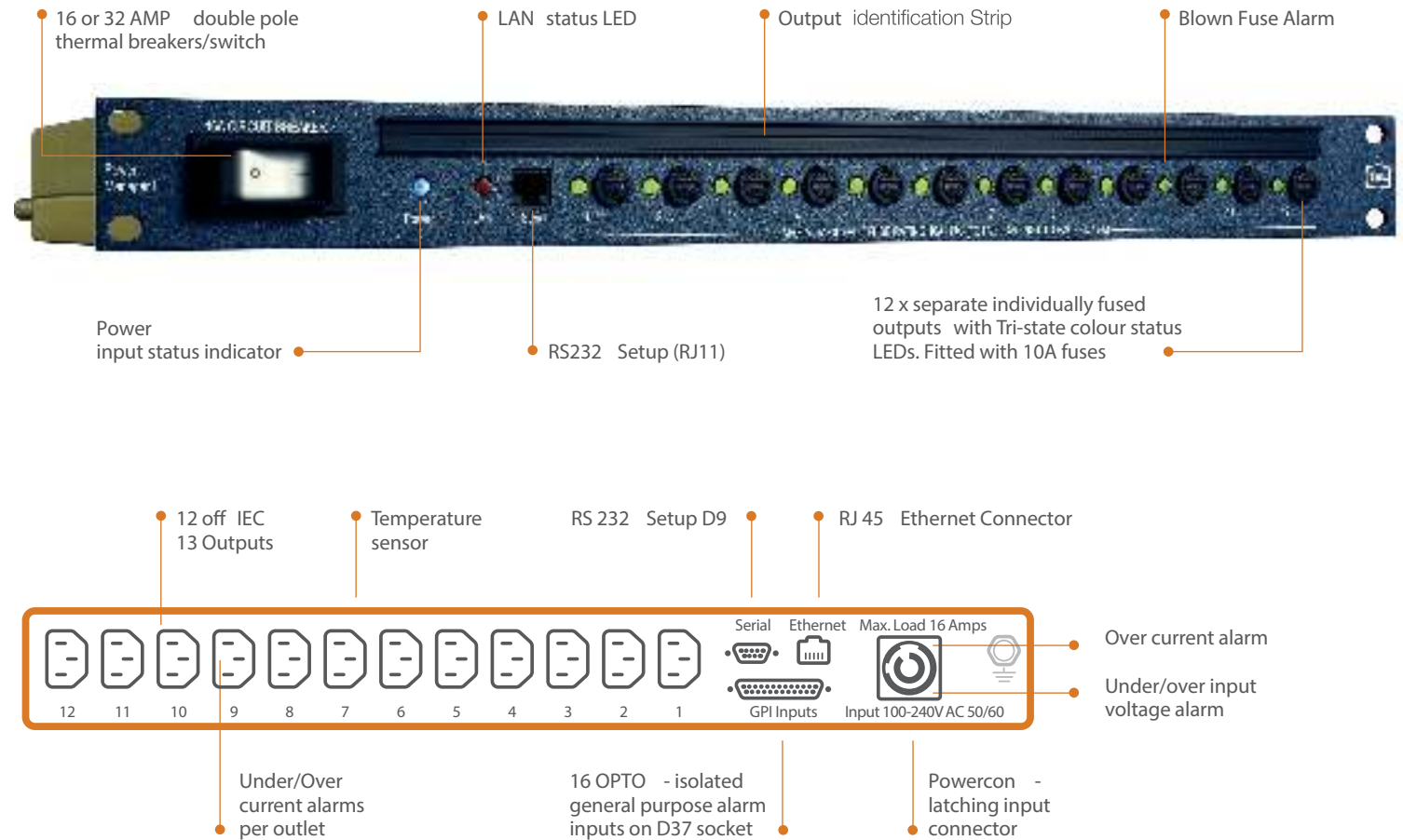- Industry standard SNMP alarm protocol

MDU Horizontal Product Range

Products	Number of Fused Outlets	Resettable Over Current Switch	Input Power Fail Alarm	Current and Voltage Measurement	Switched Outputs	Programmable Power up/down Sequencing	GPI x 16	Temp Sense	Ethernet Connectivity Reporting and Config	SMNP Alarms and Email Alerts	Over Current Protection	Auto Changeover	Operating Voltage
MDU-12PMi	12	16Amp	•	•	•	•	•	•	•	•	•	•		110/240v
MDU-12PMi-32A	12	32Amp	•	•	•	•	•	•	•	•	•	•		110/240v
MDU-12PM	12	16Amp	•		•	•	•	•	•	•	•	•		110/240v
MDU-12PMi-32A	12	32Amp	•		•	•	•	•	•	•	•	•		110/240v
MDU-12PAi	12	16Amp	•	•				•	•	•	•	•		110/240v
MDU-12PAi-32A	12	32Amp	•	•				•	•	•	•	•		110/240v
MDU-12PA	12	16Amp	•					•	•	•	•	•		110/240v
MDU-12PA-32A	12	32Amp	•					•	•	•	•	•		110/240v
MDU-14CO	14	16Amp										•	•	110/240v
MDU-14B	14	16Amp										•		110/240v
MDU-14B-32A	14	32Amp	•									•		110/240v
MDU-2CO	2	16Amp	•									•	•	110/240v

Intelligent Power Distribution

TSL Products' premium Power distribution Units (PDU), the MDU-12PMi, provides complete rack-health visibility whilst monitoring status and providing alerts if pre-set limits are exceeded.

16 or 32 AMP   double pole thermal breakers/switch

LAN status LED

Output identification Strip

Blown Fuse Alarm

Power input status indicator

RS232   Setup (RJ11)

12 x separate individually fused outputs   with Tri-state colour status LEDs. Fitted with 10A fuses

12 off IEC 13 Outputs

Temperature sensor

RS 232   Setup D9

RJ 45   Ethernet Connector

Serial   Ethernet   Max. Load 16 Amps

GPI Inputs   Input 100-240V AC 50/60

12   11   10   9   8   7   6   5   4   3   2   1

Over current alarm

Under/over input voltage alarm

Under/Over current alarms per outlet

16 OPTO   - isolated general purpose alarm inputs on D37 socket

Powercon   - latching input connector

Features

- Encrypted web browser access
- Ethernet control of each of the 12 individually fused outputs using latching relays and secure web browser (PM versions only)
- Current, voltage and power factor measurement for each outlet plus the unit total
- Input voltage measurement
- Sequential, immediate, or user configured delayed output start up
- 16 Opto-isolated GPI alarm inputs
- Returns to last configuration once power up sequence has completed should a complete power failure occur
- RS232 and Ethernet setup
- Ethernet SNMP alarms and email and SMS alerts – Power input fail alarm – Internal temperature sensor with adjustable limits – Over/under current alarm for each outlet – Fuse failure – 16 x GPI triggers

Benefits of system integration with Power Manager PMUs

- Tri-colour front panel using status LEDs for rapid failure identification
- Intuitive Graphic User Interface (GUI) for ease of set-up
- Self contained operation with all software and hardware functions
- 16 Amp or 32 Amp over current resettable switch with trip-free resettable action for efficient local maintenance and safety
- 110/240vfor worldwide operation

Intuitive User Interface

The MDU-12PMi/PM and non output switched versions MDU-12PAi/PA have a built-in web based configuration tool with intelligent GUI that enables full configuration and status reporting. User defined username and password offer secure web browser access.
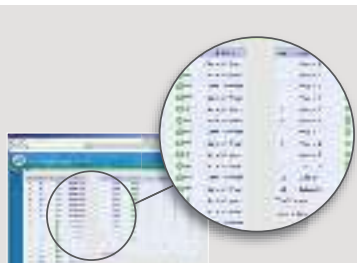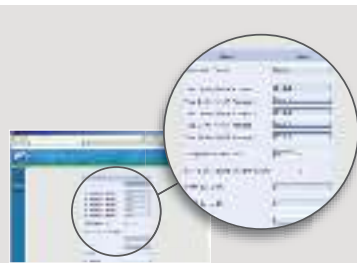
Status Page

Shows all internet and output alarm states, Current, VA, and Power Factor for each output and total shown for the whole unit.
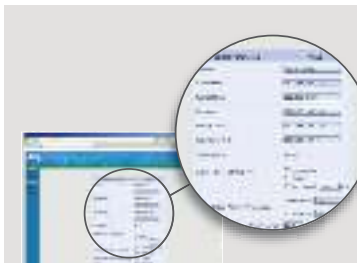
SNMP Page

This is for setting the SNMP alarm trap IP address, email alert settings, and Temperature alarm settings.

Input Page

Naming the GPI alarms and determining if they are normally open or closed.

Systems Page

Entering the IP addresses and details of the MDU.

Power Management for demanding applications

Our entry level Power Distribution Units feature 16 and 32A versions suitable for basic power configurations where high reliability is required.

MDU14-32B or MDU14-16B
32A total capability in a 1U basic unit.

32A Double
Pole Breaker

32A Powercon -
latching input
connector.

Rounded tie bar to
hold cables without
damaging them

Vertical Power Distribution Units

Building on the success of our horizontal PDUs, used by major broadcasters worldwide,
TSL Products introduces a range of vertical power distribution units (VDPUs).

Save Space and Money
The new vertical design utilises unique individually fused IEC Connectors to provide the highest density available, allowing you to save valuable rack space. The design also features low energy consumption for a leaner, greener and more space efficient rack room.

The new VPDU has dual 32A inlets, with each inlet powering twenty individually fused C13 outlets.

● Dual 32A Neutrik Powercon Inlets.

● Each Outlet is individually fused and has its own status LED meaning failure will not affect the entire rack.

● A and B Outlets are easily identifiable through the colour coding of status LEDs.

● High density means the overall unit is only 1767mm high, 55mm wide and 64mm deep.

You can use changeovers to power dual power equipment and save cost of the second power supply.

09

Change-over solutions for complete protection and system viability

Our MDU change over products are designed to work in any system where reliable switching is needed between the main and secondary power supplies.

Designed to meet the challenging safety specification BS-EN-62040-1-1:2003 which governs Uninterruptible Power Supply (UPS) products, the MDU-14CO offers reliable and programmable safety of main and backup supplies to 14 IEC outlets.

The MDU-2CO works in tandem with either the MDU-12PMi or PAi to have complete protection and system visibility. Fast switching relays offer reliable operation and cool running.
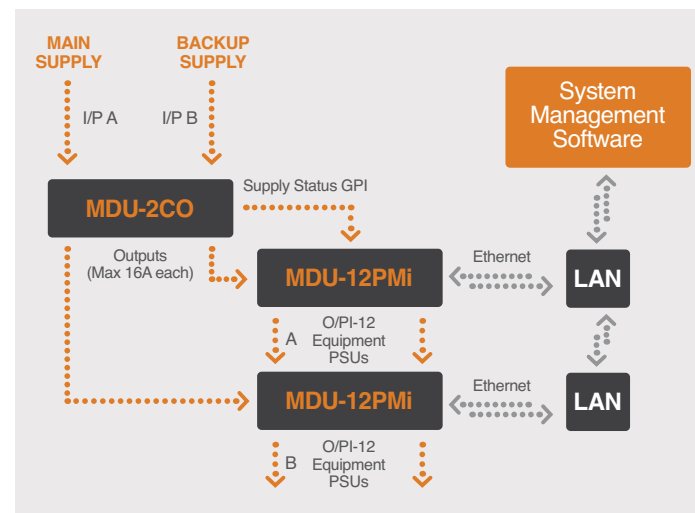
MDU-14CO

MDU-2CO

InSite – Bringing the power of DCIM to broadcast

Our powerful InSite software suite easily manages the health of a system's infrastructure by monitoring, reporting and alarming on the performance of deployed devices, power consumption and environmental information.

Facilities are generating ever more data, and although this information is readily available from individual devices, it is cumbersome to access and report on when using numerous manufacturer specific portals. Real-time data is hugely beneficial in the daily running of any facility – minimising down-time and decreasing power consumption - as long as it is accessible from a single point where it can be analysed as a whole, rather than having to access and report from individual manufacturer-specific portals.

InSite is a vendor independent solution that brings all of this information together into a single system using industry standard protocols such as SNMP and Modbus.

It can be hosted on premises or in the cloud and will work with a broad range of third party manufacturer of sensor and data centre equipment - in fact any manufacturer who produces object identifier (OID) information.
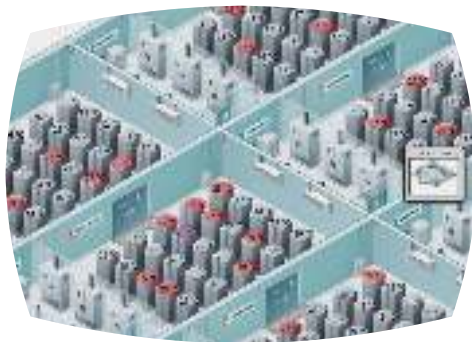
insite

InSite provides well-designed dashboards enabling you to represent data in a user friendly way. Fully configurable, they are accessible from any web browser anywhere in the world, providing an interactive live feed.

InSite's smart reporting tool, simplifies the creation of reports on any data range, making it easier for the user to provide detailed analysis on key operational variables. Reports can be visualised whilst selecting the data, in real-time and can be scheduled to appear in the relevant inbox automatically at set intervals.

InSite's scalable and configurable dashboard design allows businesses to manage their own system from start to finish. This minimises the cost traditionally associated with the initial configuration and on going maintenance and development.

Contact our international team

In addition to the Power Management range, TSL Products also specialise in Audio Monitoring & Processing and Broadcast Control Systems - thousands of which are in operation across the globe.

For further details about our product range and where to buy please visit:

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E-mail: enquiries@tslproducts.com

TSL Products