MODE LIGHTING

e D I N

www.edincontrols.com

*The DIN-rail mounting modular lighting control solution from Mode Lighting.*

CONTENTS:
- Network Processor Unit
- 300mm Data-Bus Link Cable
- User Manual CD-ROM

INSTALLATION GUIDE:
Network Processor Unit DIN-NPU-00-01

The Network Processor Unit is a control hub for the operation of multiple eDIN modules. It is an advanced network gateway that allows an eDIN system to be controlled and configured remotely through a web browser.

◼ SPECIFICATION & MOUNTING
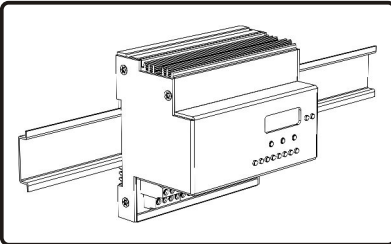
Modules must be installed within a suitable surface mount enclosure with integral DIN rail. Installation must be carried out by a qualified electrician in accordance with National Wiring Regulations and other applicable regulations. Compliance to EC EMC and Low Voltage Directives may be invalidated if not used or installed according to the published specification.

eDIN modules are designed to attach to a standard 35mm wide DIN rail *(EN 50022, BS 5584)*. To install, simply hook the module from the top, push down and click into place (see diagram).

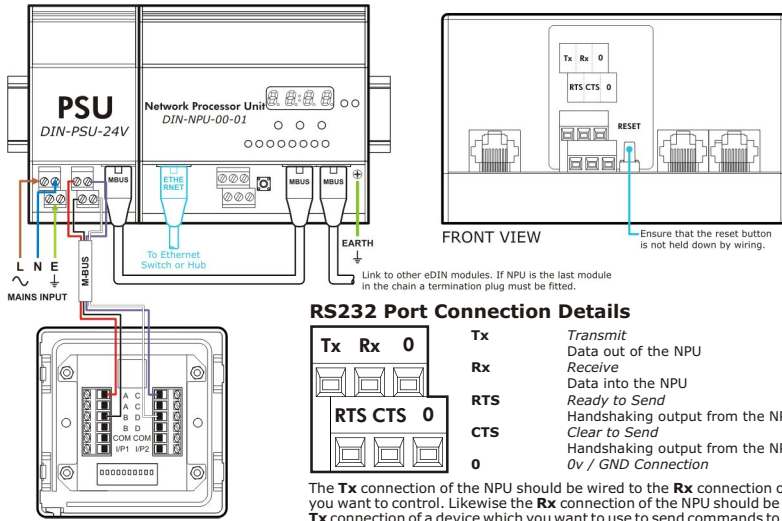All eDIN modules must be earthed. Modules contain no user serviceable parts and should not be opened.
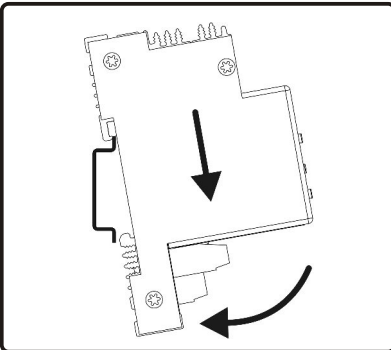
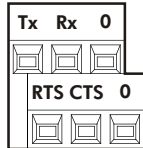|	
Module Size:	6M, L 106mm x W 100mm x H 64mm
Power Input:	24V DC, 250 mA max. from data bus
Max. Wire Size:	1.5mm²
Control Input:	Mode M-BUS
M-BUS Connection:	2 x RJ-45 (in and out)
Network Connection:	Ethernet - 100 Base-T, RJ-45
ta Max:	40°C
tc Max:	60°C
Standards:	(CE EMC & LVD) EN55015, EN61547, EN6100-3-2, EN61000-3-3 & EN60669-2-1

CE

WIRING

IMPORTANT:
- Mains input to power supply must be protected by a suitably rated MCB.
- Correctly certified cables must be used for all mains and extra low voltage MBUS connections in accordance with National Wiring Regulations and other applicable regulations.
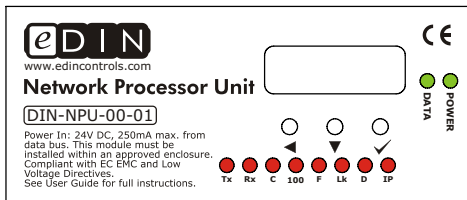

PSU
DIN-PSU-24V

Network Processor Unit
DIN-NPU-00-01

MBUS | ETHERNET | MBUS | MBUS | EARTH

L N E
MAINS INPUT
M-BUS

To Ethernet Switch or Hub

Link to other eDIN modules. If NPU is the last module in the chain a termination plug must be fitted.

FRONT VIEW

Ensure that the reset button is not held down by wiring.

RS232 Port Connection Details

Tx Rx 0

RTS CTS 0

Tx	*Transmit* Data out of the NPU
Rx	*Receive* Data into the NPU
RTS	*Ready to Send* Handshaking output from the NPU
CTS	*Clear to Send* Handshaking output from the NPU
0	*0v / GND Connection*

The **Tx** connection of the NPU should be wired to the **Rx** connection of the device you want to control. Likewise the **Rx** connection of the NPU should be wired to the **Tx** connection of a device which you want to use to send commands to the NPU.

TOP PANEL LED FUNCTIONS

eDIN
www.edincontrols.com
Network Processor Unit
DIN-NPU-00-01
Power In: 24V DC, 250mA max. from data bus. This module must be installed within an approved enclosure. Compliant with EC EMC and Low Voltage Directives. See User Guide for full instructions.

Tx Rx C 100 F Lk D IP

DATA POWER

POWER
24v Power from MBUS

DATA
MBUS message received or transmitted

LED	Communication Port	Meaning
Tx	RS232	Data is being transmitted from the NPU
Rx	RS232	Data is being received by the NPU
C	Ethernet	Collision - If this LED flashes continually then check your network cables and connectors.
100	Ethernet	Unit is operating in 100Mbits mode when illuminated. Unit is operating on 10Mbits mode when not illuminated.
F	Ethernet	Full duplex mode. This LED would normally be on.
Lk	Ethernet	Link - LED flashes whilst a link is being established. Illuminated continually when the physical Ethernet connection is working, flashing off when data is passed.
D	Ethernet	The NPU is configured to use a DHCP server, and is not a fixed IP address.
IP	Ethernet	The NPU has an IP address

ONBOARD MENU STRUCTURE

Screen on front of module

Set the Address, Ethernet settings, Clock and RS232 settings.

See Next Page

Setup

Check Debug Level, RS232, MBUS and Firmware Version

See Below

Diagnostics

LOCK the modules control panel

Lock

RESTORE all settings to factory default

Restore

Whilst not in a menu option, the display scrolls showing the address, date & time.
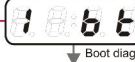
ONBOARD MENU - DIAGNOSTICS

Diagnostics

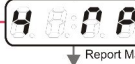Debug Level through RS232 port

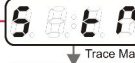No diagnostic messages

Boot diagnostic messages

Error Messages Only
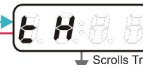
Warning Messages Only

Report Main Operations

Trace Main Operations

Print Everything

RS-232

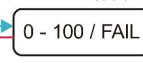Scrolls Transmitted Test Message

Scrolls Received Test Message

0 - 100 / FAIL

MBUS

Scrolls Firmware Version

■ ONBOARD MENU - SETUP

StUP — Setup

Addr — M-BUS Address → Select address 1-511 using left/right to select digit to edit and down to select value.

EtHn — Ethernet

- **IP** — IP Address → Set IP Address 000.000.000.000
- **dHCP** — DHCP → ON / OFF
- **HttP** — HTTP → ON / OFF
- **tLnt** — TelNet → ON / OFF
- **FtP** — FTP → ON / OFF
- **SntP** — Internet Time Sync → ON / OFF
- **UbUS** — Virtual BUS → ON / OFF
- **dISC** — Discovery → ON / OFF
- **rtE** — Remote → ON / OFF
- **SubM** — SubNet → Set Subnet Mask 000.000.000.000
- **gAtE** — Gate → Set Gateway Address 000.000.000.000
- **dnS** — DNS → Set DNS Server Address 000.000.000.000

CLOC — Clock

- **tInE** — Time → Set Time HH.MM.SS
- **dAtE** — Date → Set Date DD.MM.YYYY

232 — RS-232

- **bAUd** — Baud Rate → 9600, 19200, 38400, 57600, 115200 baud
- **dAtA** — Data bits → 7 / 8
- **StOP** — Stop bits → 1 / 2
- **PAr** — Parity → NONE / ODD / EVEN
- **hAnd** — RTS / CTS Handshaking → ON / OFF

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