# M-NET Mimic Driver System

The principal of the M-Net mimic driver system is to "Plug in" a complete mosaic mimic panel assembly in at site with just 2 cables, as if it were a computer screen.

- Cost effective
- Modular - easy system integration
- Various industrial protocols
- Integrated cable management
- Installation and test software
- Simple connectivity for mosaic
- Network LEDs, switches and instruments
- In-built mosaic functionality, e.g. lamp test
- Synchronisation of flashing
- Comms failure alarm
- Compatible with M-Net instrument tiles
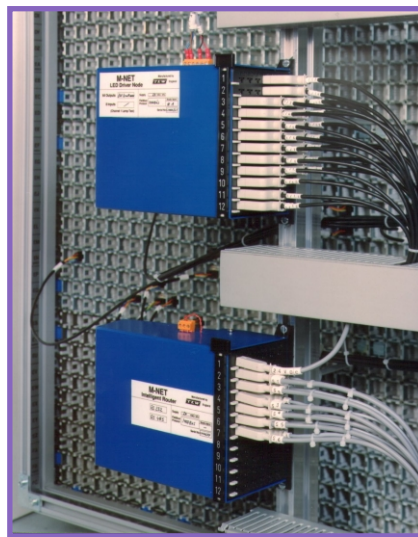
LEDs or LED modules - connect to the M-Net LED driver node using standard plug and cable sets. These cables can provide either single or multi-function/colour LED connections.

M-Net instrument tiles - plug into an M-Net instrument node which, for serial data, replaces the usual M-Net analogue signal conditioning module.

Simple instruments, such as moving coil meters, can be connected to local M-Net analogue instrument nodes. Each can operate up to 4 simple instruments.

Switch contacts - connect either to the 8 inputs of each M-Net LED driver or to separate input modules.

The standard communication protocol is Modbus RTU, but overall solutions interfacing to other PLC and fieldbus protocols such as Profibus can be provided.

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Ref: 080808

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M-NET Mimic Driver System
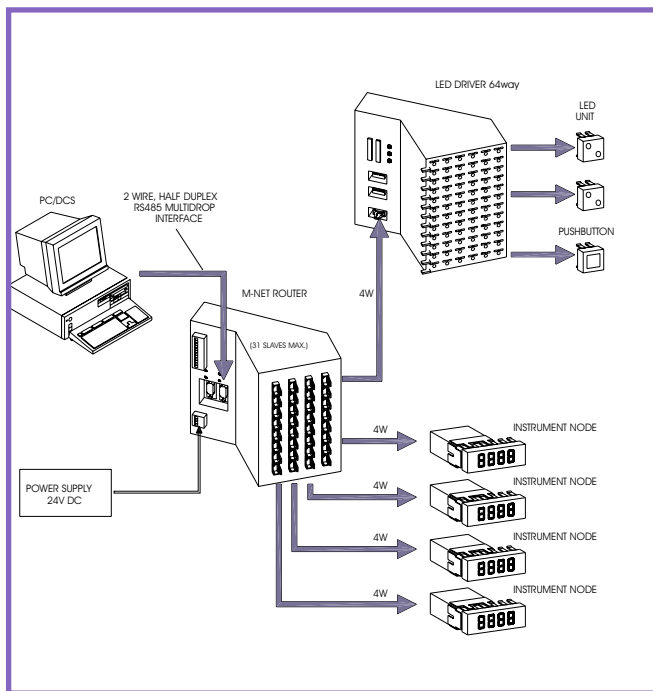
Application configuration

Within the mimic

LEDs are connected to M-Net LED driver nodes using standard cable sets. M-Net instrument tiles or simple instruments are plugged into appropriate M-Net instrument modules.

When a large number of instrument nodes are installed these nodes each connect via a standard cable set to an intelligent router, which provides power and network connections.

Mimic communicating with PLC, DCS or computer

Wherever possible the Modbus RTU protocol is used as standard. When this is not possible generally a programmable "gateway" is used, e.g. DH+, Profibus, etc. Often the programmer can address the mimic as if it were native I/O blocks.

Mimic panel not connected to a PLC or computer

For applications where the mimic panel receives its inputs from plant level sensors around a site with distributed I/O modules strategically located to reduce site cabling.

M-Net components

Gateway

The mimic in linked via a gateway to a host system. Most PLCs, DCS and computer systems can be interfaced to M-Net. Supported protocols include Allen-Bradley DH & DH+, Siemens L2 Profibus and Modbus, for which a direct connection is possible without the need for a gateway.

Intelligent router

Provides power and network data to nodes and can impart standard and application-specific mimic functionality to the system.
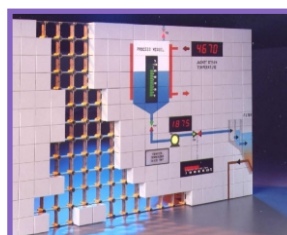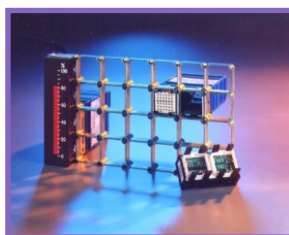
M-Net LED driver node

For connection to up to 64 LEDs via standard cable sets. Each node includes 8 input channels.

M-Net instrument node

Each node module will accept any of the M-Net instrument tiles to be interfaced directly to M-Net. The range of M-Net instrument tiles includes LED bargraphs and 4-digit DPMs in a range of tile sizes.

M-Net analogue instrument node

Each node drives 4 moving coil meters or low cost instruments.

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