

### MICRONET LCD DISPLAY

#### Order Types:

- MN50-LCD - MicroNet LCD Display
- MN50-LCDP - MicroNet LCD Display (Panel Mounting)

The MicroNet LCD is a menu driven LCD display that allows a user to monitor and configure parameters of an MN350, MN450, MN550 or an MN650 controller. The LCD is fully programmable using the VisiSat Configuration Tool.

The LCD can be used to interrogate and alter temperature inputs, plant conditions, plant overrides, time and holiday schedules that reside on MicroNet controllers. Up to 246 lines of data can be displayed.

The MN50-LCDP can be mounted on a control panel and connected to a controller. The MN50-LCD and MN50-LCDP models can be housed in a wall mounting unit, remotely from the controller, and can also be mounted on an MN550 or an MN650 controller.

When the LCD is mounted remotely, it may be connected to an MN350-NCP, MN450-NCP, MN550-NCP or MN650-NCP controller operating in stand-alone mode. In addition, the LCD can be connected to an MN550-ARC or MN650-ARC (for ARCNET networks) or an MN550-XCOM or MN650-XCOM (for NCP networks).

The LCD can be mounted on any MN550 or MN650 controller using the supplied ribbon cable. The LCD features a built-in Real Time Clock, powered separately by a Lithium battery to provide complete stand-alone operation.



### FEATURES

- Clear, high contrast LCD Display
- Wall Mounting and Panel mounting versions available
- Intuitive, text based menu system
- Fully programmable with VisiSat Configuration Tool
- Automatic upload of the configuration from the controller - 'Plug and Play'
- Built-in Real Time Clock with battery back-up
- Can be directly mounted on an MN550 or an MN650
- Can be remotely mounted and connected to an MN350, MN450, MN550 or MN650
- Screen configuration is saved on EEPROM, providing parameter protection from power cuts



#### Data Sheets

DS 10.060A - Wiring and Commissioning Information  
DS 10.153 - MN550 Controllers  
DS 10.154 - MN650 Controllers  
DS 10.201 - MicroNet View Software  
DS 10.202 - VisiSat Configuration Tool  
DS 10.217 - MicroNet Manager Interface

#### Multi-Lingual Instructions

MLI 10.060 - Installation Instructions



## SPECIFICATION

Order Type	Description	Communications Protocol	Direct Controller Mounting
MN50-LCD	MicroNet LCD Display (Controller or Wall Mounting)	Point-to-Point NCP	Yes (Stand-alone)
MN50-LCDP	MicroNet LCD Display (Panel Mounting)	Point-to-Point NCP	No

## HARDWARE SPECIFICATIONS

<b>Dimensions:</b>	244mm width x 108mm height x approx. 43mm depth
<b>Enclosure:</b>	Moulded polycarbonate plastic case. Fire resistant to UL94 VO. Wall or Panel Mounted IP 20
<b>Communications Ports:</b>	1 Serial RS 485 port.
<b>Power Supply Input:</b>	24Vac, powered from the host unit (MN550-NCP/ARC or MN650-NCP/ARC controller) or by direct 24Vac wiring. Lithium battery, 350 days life at continuous discharge.
<b>Power Supply Limits:</b>	24Vac, 50/60Hz. 4VA
<b>EMC Compliance:</b>	EN55022 (Emissions) (Class A) EN50082-1 (Immunity)
<b>Compliance:</b>	FCC Class A and CE Compliant
<b>Wiring Terminals:</b>	Eight (8) Plug-in Screw Terminals (Panel Mounting) Accepts max. conductor size Ø1mm (18 AWG)
<b>Mounting:</b>	Direct to controller, panel-mounted or wall mounted using MN-DK.
<b>Ambient Limits:</b>	<b>Operating Temperature:</b> 0 to 50°C <b>Shipping and Storage Temperature:</b> -40 to 70°C <b>Humidity:</b> 0 to 95%rh, non-condensing.

## SOFTWARE SPECIFICATIONS

The MicroNet LCD shows and allows configuration of controller parameters. The table below lists some of these parameters and details their use.

### MicroNet LCD Menu Options

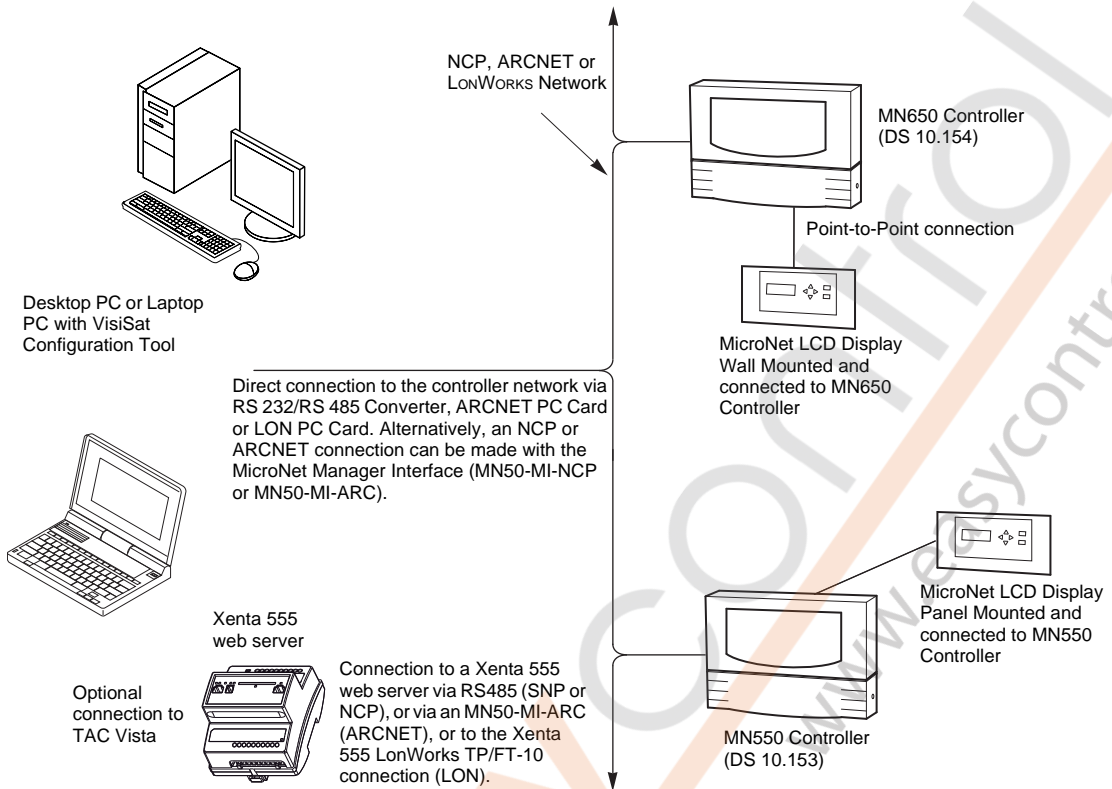
Menu Option	Details
Default Screen	The default screen can be programmed to display time and plant operating condition.
Change an Analogue Value	User can increase or decrease the parameter values within a specified range.
Change Digital Parameters	User can choose ON or OFF.
Change/Set a Time Schedule	Date, hour, and minutes are selectable by the user.
Change/Set a Holiday Schedule	Start/end holiday, date is selectable by the user.

## ACCESSORIES

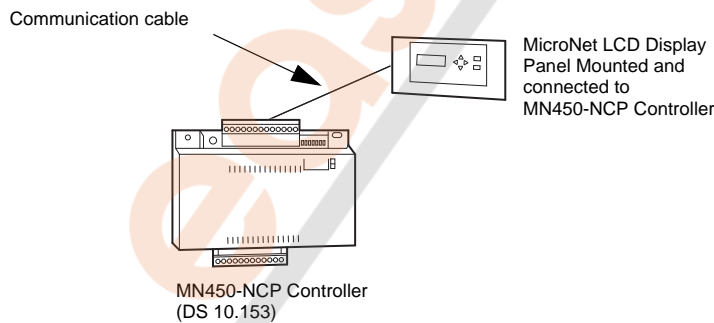
MN-DK	Display Wall Mounting Kit for LCD display, available for MN50-LCD
MN550-NCP	MicroNet MN550 NCP Controller
MN550-ARC	MicroNet MN550 ARCNET Controller
MN550-LON	MicroNet MN550 LON Controller
MN650-NCP	MicroNet MN650 NCP Controller
MN650-ARC	MicroNet MN650 ARCNET Controller
MN650-LON	MicroNet MN650 LON Controller

## TYPICAL SYSTEM DIAGRAMS

### NETWORKED MICRONET LCD DISPLAY



### STAND-ALONE MICRONET LCD DISPLAY



## COMMUNICATIONS

**Point-to-Point Protocol** The LCD communicates to the MN550 or MN650 controller using a point-to-point protocol. The communication speed is 9600 baud. The point-to-point protocol allows the display to be connected remotely from the controller, up to maximum of 10m.

The display automatically uploads its configuration from a MN550 or MN650 controller once the connection is established. If the LCD configuration is modified on the controller, it is automatically updated.

If the LCD is installed on an NCP network, the XCOM variant of the relevant controller (MN550-XCOM or MN650-XCOM) must be used to enable the controller to communicate on the NCP network.

**LonWorks and ARCNET Networks** The MN50-LCD can access parameters from LON and ARCNET networks by binding the parameters to the MN550 or MN650 controllers.

**Stand-alone Operation** In stand-alone mode, the NCP MN350 & MN450 controllers and the MN550 and MN650 controllers can also be used with a remotely connected MN LCD.

## APPLICATIONS

The LCD provides the following functionality:

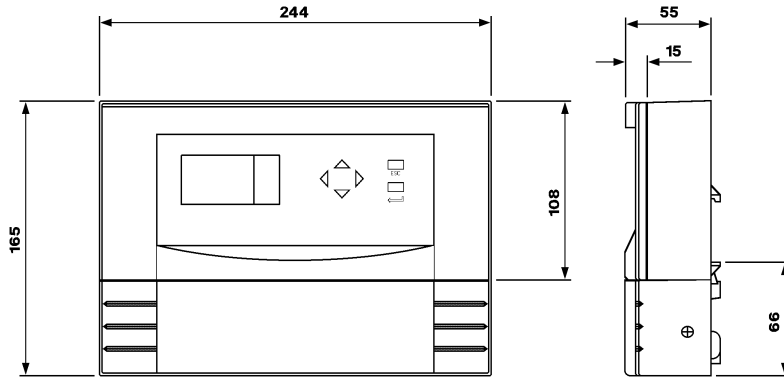
- Time Scheduling
- Holiday Scheduling
- Temperature and Control Output Monitoring
- Setpoint Monitoring
- Plant status Monitoring

## CONNECTIVITY

The LCD is connected to a MN550 or MN650 controller (networked). The display configuration is downloaded via the MN MI to the MN550 or MN650 controller, from where it is automatically uploaded to the LCD display.

A remotely mounted LCD can also be connected to an NCP MN350 or an NCP MN450 controller (in stand-alone mode) or to any MN550 and MN650 controller (in stand-alone mode); the display configuration in the controller is automatically uploaded to the LCD display.

## DIMENSION DIAGRAM



Dimensions in mm

Weight:  
MN50-LCD 443g  
Ribbon Cable 10g

### WARNING -

THE LCD CONTAINS A LITHIUM CHLORIDE BATTERY WHICH IS COMPLETELY SAFE WHILST IN NORMAL USE. THE BATTERY MUST BE DISPOSED OF IN ACCORDANCE WITH LOCAL WASTE REGULATIONS.

### Cautions

- Do not apply any voltages until a qualified technician has checked the system and the commissioning procedures have been completed.
- This is a 24Vac device. Do not exceed rated voltage. Local wiring regulations and usual safety precautions apply.
- 24Vac must be supplied by a transformer conforming to EN 61558.
- If any equipment covers have to be removed during the installation of this equipment, ensure that they are refitted after installation to comply with UL and CE safety requirements.
- Do not exceed the maximum ambient temperature.
- Interference with parts under sealed covers invalidates guarantee.
- The design and performance of TAC equipment is subject to improvement and therefore liable to alteration without notice.
- Information is given for guidance only and TAC does not accept responsibility for the selection or installation of its products unless information is given by the Company in writing relating to a specific application.
- A periodic system and tuning check of the control system is recommended. Please contact your local sales office for details.

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Electric

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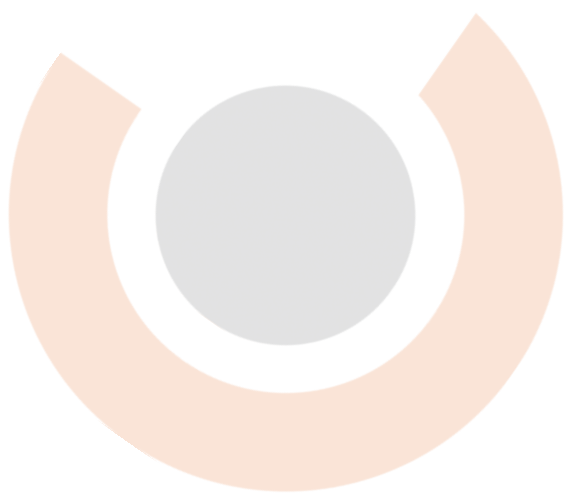
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