

I/A SERIES[®] MICRONET TOUCH SCREEN DISPLAY

Order Type:

- MNN-TS-100 - MicroNet NCP Touch Screen Display
- MNN-TSP-100 - MicroNet NCP Touch Screen Display (Panel Mounting)

The I/A Series[®] MicroNet Touch Screen Display is a graphic LCD display that allows a user to monitor and configure parameters for multiple controllers on a LonWorks[®] FTT-10 Free Topology, NCP (Native Communications Protocol), or ARCNET communications network. The Touch Screen features continuous alarm polling and data passing to all connected controllers on a network or sub-network. The MicroNet Tech Tool is used to configure the Touch Screen for parameter monitoring and alarm functions. The Touch Screen can then perform these functions after the Tech Tool is removed. The MN TS can be mounted directly to the MNN-50 and MNN-62 controller used on an NCP network. Other touch screen models can be mounted in a self-contained panel and connected to a controller or connected directly to a compatible network.

The Touch Screen features a built-in Realtime Clock powered separately by a Lithium battery that can be configured to be a master timekeeper for a network. The touch-sensitive key-pad works easily with the screen's intuitive graphic representation of common control parameters. The display shows the user 16 menu items, each of which gives access to 16 separate controller parameters.



FEATURES

- LonWorks, NCP, ARCNET Communications Options
- Back-lighted graphic LCD Interface
- Wall Mounting Kit available
- Easy direct mounting to MNN-50 and MNN-62 controllers used on an NCP network
- Intuitive, graphics-based menu system
- Battery backed up, built-in Realtime Clock
- Secure password protection
- Can be connected directly to a network
- Screen configuration is saved on EEPROM, providing parameter protection from power cuts



DS 10.050A - Installation Instructions
 DS 10.103 - MN 500 Controllers
 DS 10.104 - MN 620 Controllers
 DS 10.200 - Micronet Tech Tool
 DS 10.201 - Micronet View Software



SPECIFICATION

Order Type	Description	Communications Protocol	Direct Controller Mounting
MNN-TS-100	MicroNet NCP Touch Screen Display	NCP ^{a b}	Yes (Only NCP)
MNN-TSP-100	MicroNet NCP Touch Screen Display (Panel Mounting)	NCP ^{a b}	No

a. ARCNET communications is available by connecting optional ARCNET Plug-in Card (MNA-C).

b. LonWorks communications available with optional LonWorks plug-in card (MNL-C).

HARDWARE SPECIFICATIONS

Dimensions:	244 mm width x 108 mm height x 6 mm depth
Enclosure:	Moulded polycarbonate plastic case. Fire resistant to UL94 VO. Wall Mounted = IP20 Panel Mounted = IP40
Communications Ports:	2 Serial RS485 ports.
Power Supply Input:	24 Vac, powered from the host unit (either MNN-50 or 62 series controller) or by direct 24Vac wiring. Realtime Clock has Lithium battery (350 days life at continuous discharge).
Maximum Power Consumption:	MNN-TS-100 5VA MNN-TS-100 with MNA-C 6.5VA MNN-TS-100 with MNL-C 8VA
Surge Immunity Compliance:	EN50082-1
European Community – EMC Directive:	EN50081-1 (Emissions) EN50082-1 (Immunity)
Agency Listings:	FCC, Class A Canadian Department of Communications, Class A UL Listed - UL916 UL Listed to Canadian Safety Standards
Wiring Terminals:	Eight (8) Plug-in Screw Terminals (Panel Mounting) Accepts max. conductor size Ø1mm (18 AWG)
Mounting:	Direct to controller, panel-mounted or wall mounted using MN-DK.
Ambient Limits:	Operating Temperature: 0 to 40°C Shipping and Storage Temperature: -20 to 55°C Humidity: 0 to 95% RH, non-condensing.
Accessories:	MN-DK, Wall Mounting Kit for Touch Screen available for MNN-TS. MNA-C, ARCNET Plug-in Card available for MNN-TS & MNN-TSP. MNL-C, LonWorks Plug-in Card available for MNN-TS & MNN-TSP.

SOFTWARE SPECIFICATIONS

The MicroNet Touch Screen displays and allows configuration of controller parameters. The table below lists some of these parameters and details their use.

MicroNet Touch Screen Menu Options

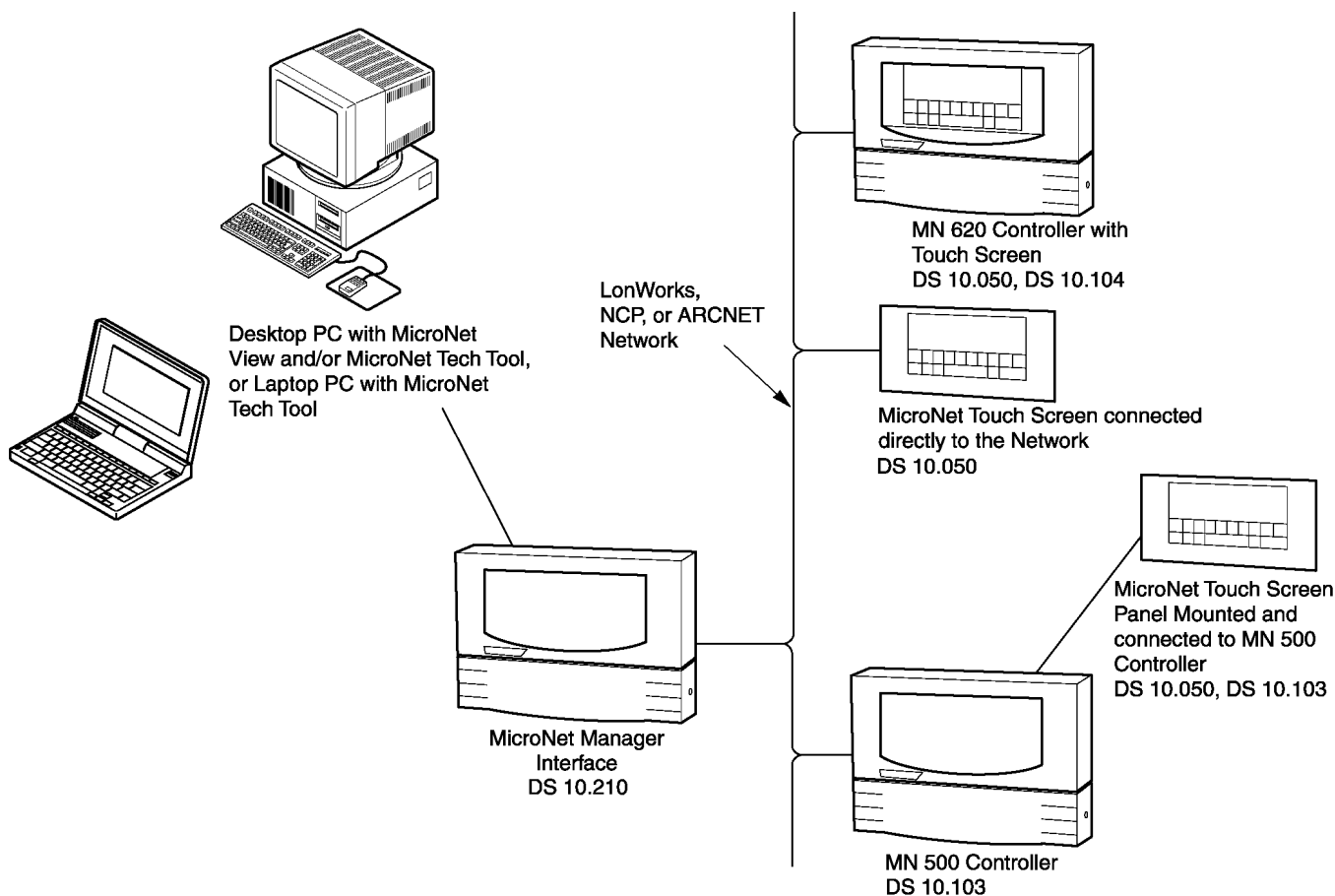
Menu Option	Details
Change an Analogue Value	• User can increase or decrease the parameter values within a specified range.
Change Digital Parameters	• User can choose ON, OFF, or NONE (Auto) for the chosen parameter.
Change/Set a Time Schedule	• Date, hour, and minutes are selectable by the user.
Change/Set a Holiday Schedule	• Start/end holiday, date is selectable by the user.
View an Optimiser Histogram/Log	• User can view a histogram (graph) and log of start times for optimiser mode.
Review Alarms	• User can see all parameters with alarm attributes attached.
Acknowledge Alarms	• User can view and acknowledge alarms.
View Logging Graph Trends	• User can specify and view logged trend data in a graph.

ACCESSORIES

LON-TERM 1	Single LON Terminator for free topologies
LON-TERM 2	Double LON Terminator for BUS topologies (2 required).
MN-DK	Display Wall Mounting Kit.
MNA-C	ARCNET Communications Card
MNL-C	MicroNet LonWorks Communications Card
MNN-MI	Micronet Manager Interface

TYPICAL SYSTEM DIAGRAM

I/A SERIES® MICRONET TOUCH SCREEN DISPLAY



COMMUNICATIONS

NCP (Native Communications Protocol)* In cases where an open communications standard is not required, an NCP network can be used as a cost effective solution. An NCP network can host up to 20 sub-networks with 63 devices each communicating in a polled-response fashion. Controllers on an NCP network connect to MicroNet View and the MicroNet Tech Tool via the MicroNet Manager Interface (MNN-MI-100). An NCP network has a communications speed of up to 9.6k baud.

ARCNET® * If an open communications standard is not necessary, but peer-to-peer communications is required, the high-performance ARCNET network option may be implemented. This network is created by fitting the optional ARCNET card on each controller, Touch Screen, and MicroNet Manager Interface (MNN-MI-100) on an NCP network. An ARCNET communications network can host up to 128 devices. Controllers on an ARCNET network can communicate with other controllers in a peer-to-peer fashion and connect to MicroNet View and the MicroNet Tech Tool software via the MicroNet Manager Interface (MNN-MI-100). An ARCNET network has a communications speed of 156k baud.

Note:

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LONWORKS® A communications network using an FTT-10 Free Topology configuration can host up to 62 devices. Controllers on a LONWORKS network can communicate with other controllers in a peer-to-peer fashion and connect to MicroNet View and the MicroNet Tech Tool via the MicroNet Manager Interface. This network option is created by fitting the optional LonWorks Card on each controller and MicroNet manager. The MNN-MI-100 with LonWorks card supports an ENM (Embedded Network Management) database with a complete listing of all devices on the network and the connections (bindings) between them. MicroNet View provides alarm management and dynamic and historical logging for the network. A LONWORKS network has a communications speed of up to 78.8k baud.

*Note:

In the initial release the NCP and ARCNET products are configured using the MicroSat Tool.

APPLICATIONS

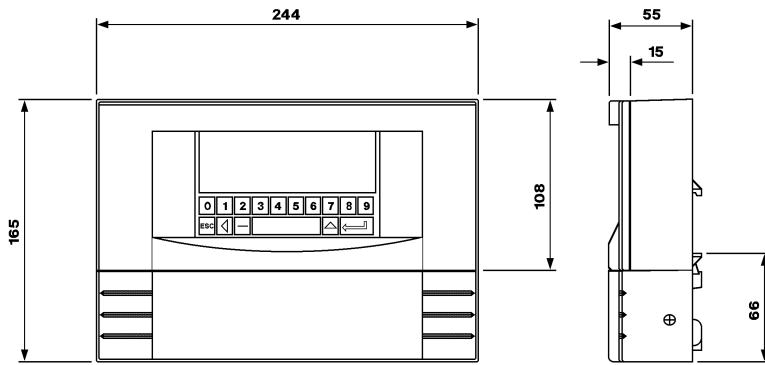
The I/A Series® MicroNet Touch Screen Display provides the following functionality to a MicroNet Network:

- **Controller Scheduling**
- **Alarm Viewing and Management**
- **Alarm and Parameter Polling of devices on a network**
- **Setpoint Monitoring**
- **Trending**

CONNECTIVITY

The MicroNet Touch Screen Display is connected to a compatible controller or can be installed directly on a network, either a LONWORKS®, an NCP, or an ARCNET network. It connects to a PC with MicroNet Tech Tool via the MicroNet Manager Interface.

DIMENSION DIAGRAM



Dimensions in mm

Satchwell

Satchwell Control Systems Limited

Farnham Road
Slough
Berkshire SL1 4UH
United Kingdom

Telephone +44 (0)1753 550550

Facsimile +44 (0)1753 824078

A Siebe Group Company

CAUTION

- 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 60742.
- The RTC board contains a Lithium Chloride battery which is completely safe whilst in normal use. The battery must be disposed of in an authorised ground fill site.
- Do not exceed the maximum ambient temperature.
- Interference with parts under sealed covers invalidates guarantee.
- The design and performance of Satchwell equipment is subject to continual improvement and therefore liable to alteration without notice.
- Information is given for guidance only and Satchwell do not accept responsibility for the selection and installation of it products unless information has been given by the Company, in writing, relating to a specific application.
- A periodic check of the Building Management System is recommended. Please contact your local Satchwell Service Office for details.