

I/A SERIES® MICRONET MANAGER INTERFACE

Order Type:

MNN-MI-100 - MicroNet NCP Interface

The I/A Series MicroNet Manager Interface (MN MI) provides the network-level management functions for a network of MicroNet controllers and displays. An RS 232 port on the MN MI furnishes a single connection to a PC running the MicroNet Tech Tool or MicroNet View software or a Wide Area Network (WAN) for remote access. The MN MI features password protection to stop unauthorised computers from interrogating remote sites. It can connect up to 62 devices on a LonWorks network or 127 devices on an ARCNET network. When using LONMARK as a communications protocol, the MN MI holds an Embedded Network Management database (ENM), which contains a list of all the LONMARK devices on the network and the bindings between these devices. An MN MI features a built-in Realtime Clock that can be used for network synchronization.



FEATURES

- Autoanswer operation on modem sites
- Two types of alarms: Service alarms are autodialed every evening, while priority alarms are autodialed immediately
- Password protection
- Stores up to four phone numbers
- Retains telephone numbers and passwords in flash memory during a power failure
- Autodials in the event of a controller going off line
- Industry standard connector used for modem connection
- Easy to read LED Status display
- Realtime Clock
- Support LonWorks, ARCNET and NCP networks



DS 10.210A - Installation Instructions
 DS 10.200 - Micronet Tech Tool
 DS 10.201 - Micronet View Software



SPECIFICATION

Order Type	Description	Communication Protocol	On-board RTC
MNN-MI-100	MicroNet NCP Interface	NCP ^{a b}	Yes

^a. ARCNET communications protocol available with optional ARCNET plug-in card (MNA-COPT)

^b. LonWorks communications protocol is available with optional LonWorks plug-in card (MNL-C-ENM)

HARDWARE SPECIFICATIONS

Dimensions:	244 mm Height x 165 mm Width x 55 mm Depth
Enclosure:	Moulded polycarbonate plastic case. Fire resistant to UL94. IP40.
Power Supply Input:	24 Vac, 50/60 Hz supplied from a transformer conforming to EN 60742.
Maximum Power Consumption:	1.5 VA
Number and Type of PC Communication Ports:	1 Off RS-232
Maximum RS 232 Cable Length:	50 ft. (15m)
Available Flash Memory:	256Kb
Power Failure Reserve:	Non-rechargeable Lithium battery continues to run the clock and supports the unit's RAM thus preserving current logs and alarms in the Network Interface for up to 350 days.
Surge Immunity Compliance	IEC 1000-4-5 EN50082-1 ANSI C62.41 (IEEE-587, Category A & B)
Agency Listings:	FCC Class A CE Compliant UL Listed: UL916 UL Listed to Canadian Safety Standards
European Community – EMC Directive:	EN50081-1 (Emissions) EN50082-1 (Immunity)
Mounting:	Wall or 35 mm DIN rail.
Ambient Limits:	Operating Temperature: 0 to 50°C Shipping and Storage Temperature: -10 to 70°C Humidity: 5 to 95% RH, non-condensing.
Wiring Terminals:	1.5mm ² (AWG No. 16 to 24) wire.

SOFTWARE SPECIFICATIONS

The MicroNet Network Interface performs a broad range of network level functions. The types of network functionality and details are shown in Table 2

MICRONET MANAGER INTERFACE SOFTWARE SPECIFICATIONS

Functionality	Detail
Realtime Clock	<ul style="list-style-type: none"> • Can be designated as master for synchronization. • Programmable Daylight Savings Time.
Alarm handling	<ul style="list-style-type: none"> • Process and store any object alarm generated on the network. • Optional storage of upto 2500* alarms in non-volatile memory. • Service alarms. • Priority alarms.
Logging	<ul style="list-style-type: none"> • 2500 samples minimum capacity. • Data collection backed up in non-volatile memory.

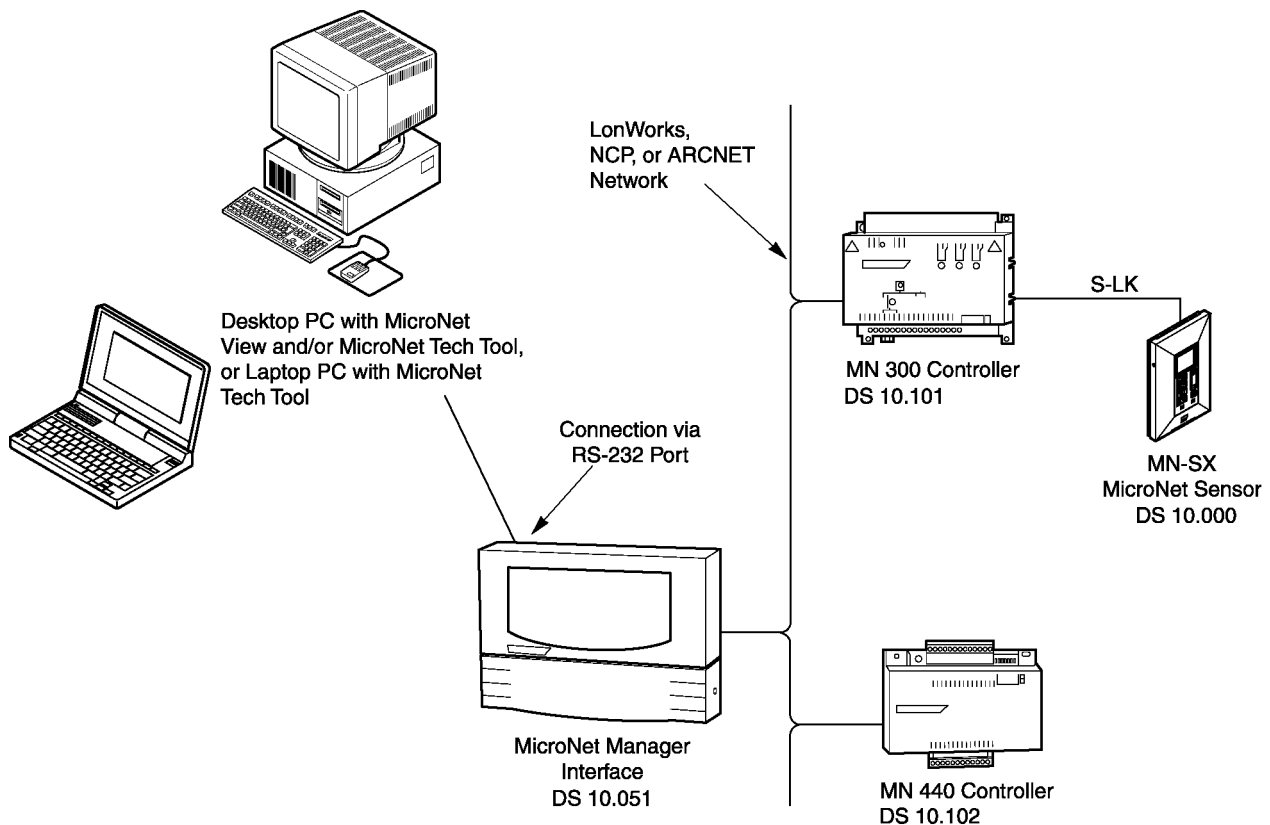
* The MI has 2500 locations for storing logs and alarms, therefore the more logs it stores, the less space is left available for alarms.

ACCESSORIES

LON-TERM 1	Single LON Terminator for FREE Topologies.
LON-TERM 2	Double LON Terminator for BUS Topologies (2 required)
MNA-C	ARCNET Communications Card
MNL-C-ENM	LonWorks Communications Card with Embedded Network Management
CBL-2	RS 232 D8/D9 cable from PC to MI

TYPICAL SYSTEM DIAGRAM

I/A SERIES MICRONET MANAGER INTERFACE



COMMUNICATIONS

LONWORKS® The MicroNet Manager Interface with ENM connects devices on a LONWORKS® FTT-10 Free Topology communications network to a PC running MicroNet View and/or the MicroNet Tech Tool. A LONWORKS network can host up to 62 devices communicating in a peer-to-peer fashion. The MNN-MI-100 with MNL-C-ENM plug-in card is configured from the MicroNet Tech Tool. A LONWORKS network has a communications speed of 78.8k baud.

NCP (Native Communications Protocol) In cases where an open communications standard is not required, an NCP network can be used. 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). An NCP network has a communications speed of 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 and MicroNet Manager (MNN-MI) on an NCP network. An ARCNET communications network can host up to 127 devices. Controllers on an ARCNET network can communicate with other controllers in a peer-to-peer fashion and connect to the MicroNet View graphical user interface and the MicroNet Tech Tool software via the MicroNet Manager (MNN-MI). An ARCNET network has a communications speed of 156k baud.

APPLICATIONS

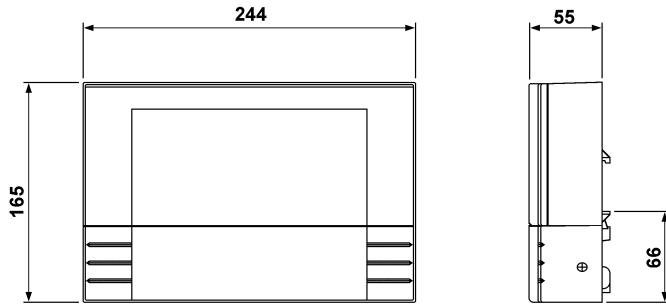
The I/A Series MicroNet Manager Interface provides the following functionality to a MicroNet Network:

- Trend Collection
- Alarm Management for MN 100, MN 200, MN 300, MN 440, MN 500, MN 620 and MN VAV Controllers

CONNECTIVITY

The MicroNet MN MI connects a PC running MicroNet View or the MicroNet Tech Tool software to a network, either a LONWORKS® FTT-10 Free Topology communications network, an NPC, or ARCNET communications network. When connected to a modem, the MN MI can allow modem access from MicroNet View or MicroNet Tech Tool.

DIMENSION DRAWING



Dimensions in mm

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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 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 Satchwell Service Office for details.