This high speed data collector and manager for automatic ID networks can poll up to 50 devices including scanners, decoders, and bar-code label printers over an RS-485 multidrop network. Like all of Microscan's products, the MS-5000 multidrop concentrator offers simple, menu-driven configuration firmware making it simple to integrate with a host computer, PLC, or other I/O device. A superb controller of network data, the MS-5000 can handle data flow transmission rates up to 38.4K baud. If needed, several MS-5000 concentrators can be cascaded to poll more than 50 devices. The MS-5000 is the ideal data flow manager for any multidrop application using scanners, decoders, printers, or other devices.

MS-5000   CONCENTRATOR

High speed communication: The MS-5000 concentrator can transfer data over the multidrop network, including communication with the host computer, at rates of up to 38.4K baud.

Direct, continual polling of the device network: The MS-5000's RS-485 multidrop protocol allows for uninterrupted communication between the concentrator and the device network.

Simple integration with the host computer: Easy-to-set, built-in software makes the MS-5000 concentrator simple to configure with menus that are accessible through the host system, a PC, or

Direct terminal hookup through auxiliary port: The auxiliary port allows you to conveniently access the configuration menus to change parameters or review the current status of devices on the network.

Battery-backed RAM: A total of 18K of battery-backed RAM manages data for first-in, first-out transmission to the host and safeguards the MS-5000 concentrator against momentary power fluctuations.

Multicolored status LEDs: Three LEDs indicate the concentrator's status. Indicator 1 flashes green when data is sent to the host. Indicator 2 illuminates red when the concentrator is in a ready state or is polling the networked devices. The power LED illuminates red while power is on.

Service options:
• Installation assistance program
• Service agreements
• Training
• On-site service

an ASCII terminal. RS-232, RS-422, and RS-485 communication parameters can be quickly established between the concentrator and host. Furthermore, the MS-5000 offers a wide selection of communication interfaces and protocols with standard and user-defined options available.
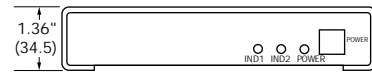
MICROSCAN®

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MS-5000 CONCENTRATOR
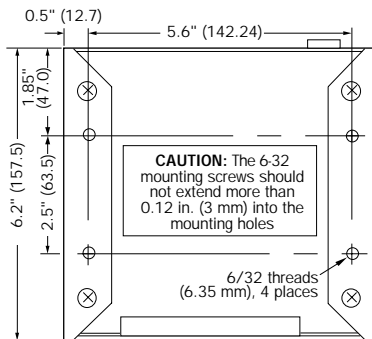## Specifications

MECHANICAL
Length: 6.20 in. (15.75 cm)
Width: 6.61 in. (16.79 cm)
Height: 1.36 in. (3.45 cm)
Weight: 16 oz. (453 grams)

Front Inches (mm)

1.36"
(34.5)

IND1 IND2 POWER

POWER

Bottom

0.5" (12.7)
5.6" (142.24)
1.85" (47.0)
2.5" (63.5)
6.2" (157.5)

CAUTION: The 6-32 mounting screws should not extend more than 0.12 in. (3 mm) into the mounting holes

6/32 threads
(6.35 mm), 4 places

Top

6.61" (167.9)
0.030" (7.62)
5.2" (132.08)
6.2" (157.5)
3.8" (96.52)
0.160" (4.06) DIA
(4 places)
4.5" (114.3)
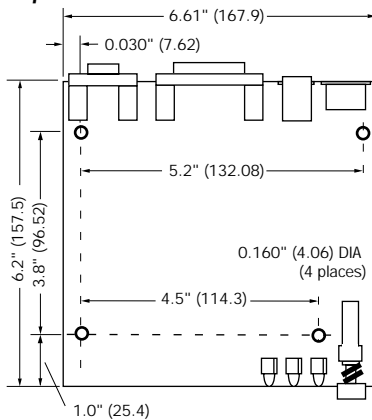1.0" (25.4)
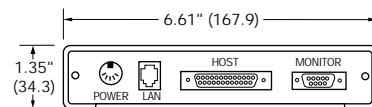
Back

6.61" (167.9)
1.35" (34.3)
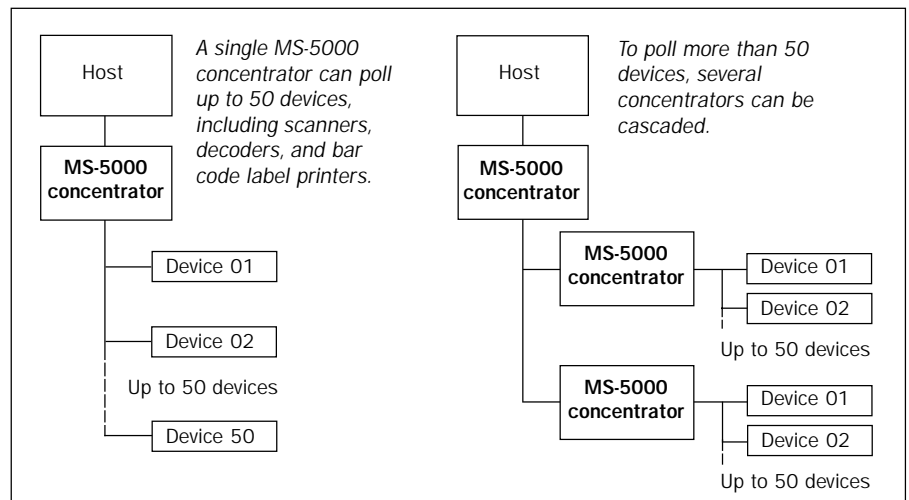POWER LAN HOST MONITOR

COMMUNICATION
Host
Port: 25-pin D sub socket wired as DTE
Interfaces: RS-232, RS-422, and RS-485 multidrop
ASCII format: 7 or 8 data bits
Stop bits: 1 or 2
Baud rates: 600, 1200, 2400, 4800, 9600, 19.2K, or 38.4K
Selectable parity: odd, even, or none
Protocols: point-to-point, polling mode D, multidrop, user defined, and user defined multidrop

TYPICAL NETWORKS

Host

MS-5000 concentrator

A single MS-5000 concentrator can poll up to 50 devices, including scanners, decoders, and bar code label printers.

Device 01

Device 02

Up to 50 devices

Device 50

Host

MS-5000 concentrator

To poll more than 50 devices, several concentrators can be cascaded.

MS-5000 concentrator

Device 01

Device 02

Up to 50 devices

MS-5000 concentrator

Device 01

Device 02

Up to 50 devices

LAN *(to polled devices)*
Port: RJ-11 6-pin modular socket
Interface: 4-wire RS-485, RS-422
ASCII format: 7 or 8 data bits
Stop bits: 1 or 2
Baud rate: 600, 1200, 2400, 4800, 9600, 19.2K, or 38.4K
Protocols: multidrop, user defined multidrop (up to 50 devices per concentrator)

Auxiliary *(to terminal or monitor)*
Port: 9-pin D sub plug
Interface: RS-232
ASCII format: 7 or 8 data bits
Stop bits: 1 or 2
Baud rate: 2,400, 4800, 9600, 19.2K, or 38.4K
Protocol: point-to-point

Memory buffer
18K of battery-backed RAM for first-in-first-out data management

STATUS LIGHTS

LED	Color	Condition
Power LED	Red	Illuminates on power-on
IND1	Green	Flashes each time data is sent to the host
IND2	Red	Illuminates whenever the concentrator is in a ready state or is polling the connected devices. When this light goes off, a data-buffer-full condition exists and the concentrator is no longer polling the devices.

ELECTRICAL
Power requirements:
+ 12 VDC @ 40 mA maximum, 20 mV p-p max. allowed ripple
–12 VDC @ 40 mA maximum, 20 mV p-p max. allowed ripple
+5 VDC @ 300 mA maximum, 200 mV p-p max. allowed ripple

ENVIRONMENTAL
Operating temperature
32° to 113°F (0° to 45°C)
Storage temperature
–58° to 158°F (–50° to 70°C)
Humidity: up to 95% (non-condensing)

ISO 9001/Cert. No. US96/0465

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