SPECIFICATIONS

HARDWARE

Enclosure
Conforms to NEMA-1. UL-916 rated.

Power Supply Input
20.4 to 30.0 Vac, 50/60 Hz.

Maximum Power Consumption
20 VA at 50/60 Hz.

Transient Compliance Tests
ANSI C62.41 (IEEE 587), Categories A and B.

Electrostatic Discharge Test
±15 kV to case, ±5 kV to field wiring terminals.

AMBIENT LIMITS

Operating Temperature
UKKL Smoke Control
77 °F (25 °C) nominal.

PAZX Energy Management
-40 to 140 °F (-40 to 60 °C).

Shipping and Storage Temperature
-40 to 140 °F (-40 to 60 °C).

Humidity
5 to 95% RH, non-condensing.

Microprocessor
80C198, 7 MHz clock speed, 16-bit word size.

Memory
64 KB of EPROM, 2 KB of EEPROM, 8 KB of RAM.

Wiring Terminals
See figure.

Battery Backup - Clock and RAM
30 days (replaceable lithium battery).

Battery Backed-up Time Clock
Accuracy ±150 sec./mo at 77 °F (25 °C).

MICROZONE II Direct Digital Controllers

MICROZONE II Controllers MZ2A Series
The NETWORK 8000 MICROZONE II™ (MZII) is a fully programmable controller that enhances the NETWORK 8000 Facility Management System family offering. The MZII has the ability to employ custom block programs and run them in a stand-alone mode. The MZII block programming language provides the system operator with 100% flexibility for creation of new and unique control strategies.

MICROZONE II is easily applied to a wide variety of mechanical equipment including those that are application specific. Through the Personal System Interface (PSI) and Xtended Personal System Interface (XPSI), control programs can be downloaded to all devices requiring the sequence of operation. With the MZII, the NETWORK 8000 provides the best of both worlds; full programmability for easy creation and modification of custom control strategies, and easy duplication of controller databases for mechanical equipment containing similar or identical control strategies.

The MZII utilizes state-of-the-art, surface mount technology which helps reduce the size and cost of the product while providing powerful product features. Modularity of hardware along with the networking capabilities allow easy expandability as the needs of the facility change in the future. As with all other programmable NETWORK 8000 controllers, the MZII utilizes non-volatile EEPROM memory to store application control programs. EEPROM memory allows an owner to modify existing control sequences or create new ones through the Personal System Interface (PSI).

Analog To Digital Conversion Resolution
10 bit.

Digital To Analog Conversion Resolution
10 bit.

Input to Output Response Time
0.5 seconds maximum.

UNIVERSAL INPUTS

Quantity
8.

Thermistor Input
20 to 140 °F (-6.67 to 60 °C) range. Barber-Colman TS-5700-850 series or equivalent.

Continued on next page.
FEATURES

- Complete user creation of custom control strategies through block programming structure adapts MZII to virtually any HVAC control sequence or mechanical system.

- Models with battery backed-up time clock provide true stand-alone direct digital control with optimum start stop, scheduling functions, and battery backed-up random access memory (RAM).

- Input/output auto trending with adjustable sample rates continually accumulate and time stamp last 48 analog values and last 10 digital changes of state.

- Satellite point command capability from global controllers eliminates “waste” of unused points.

- “Fast” half (0.5) second input to output response times make MZII directly applicable to static pressure, fume hood and laboratory pressurization applications.

COMMUNICATIONS

Ports
RS-485 asynchronous at 19,200 baud (adjustable) to global controller. Modular jack provided for local connection of the Personal System Interface.

Local Terminal (PSI)
PSI can monitor all device parameters and has access to all program blocks and attributes for complete program editing and creation. Provides up/download capability for system maintenance.

Network Device Access
PSI connected at one device has access to all network-wide devices on an ASD communication bus. Connection of PSI will not disrupt the network communications between the MZII controller and other devices on the bus.

NETWORK 8000
Up to 127 MZIIs per Global Control Module. Shared network data includes all physical input/output points plus capability of WINDO and EMS blocks which are program definable.

MODELS

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Battery Backed-up Time Clock</th>
</tr>
</thead>
<tbody>
<tr>
<td>MZ2A-101</td>
<td>Controller card only</td>
<td>No</td>
</tr>
<tr>
<td>MZ2A-102</td>
<td>Controller card only</td>
<td>Yes</td>
</tr>
</tbody>
</table>
SOFTWARE SPECIFICATIONS

CONTROL FUNCTIONS

MICROZONE II Block Library

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AQ</td>
<td>Analog Output</td>
</tr>
<tr>
<td>DO</td>
<td>Digital Output</td>
</tr>
<tr>
<td>EMS</td>
<td>GCM™ Input</td>
</tr>
<tr>
<td>HOLID</td>
<td>Holiday Schedule</td>
</tr>
<tr>
<td>LOOP</td>
<td>Complex PID Loops</td>
</tr>
<tr>
<td>OSS</td>
<td>Optimum Start/Stop</td>
</tr>
<tr>
<td>RESET</td>
<td>Setpoint Reset</td>
</tr>
<tr>
<td>RGRP</td>
<td>Receive Global Group Data</td>
</tr>
<tr>
<td>SCHED</td>
<td>Weekly/Daily Schedule</td>
</tr>
<tr>
<td>SEQ</td>
<td>Linear/Binary Sequencer</td>
</tr>
<tr>
<td>UI</td>
<td>Universal Input</td>
</tr>
<tr>
<td>UTIL</td>
<td>Utility: Counter, Drive, Flow Detect, Limit, Logic, Math, Stop/Start, Process Alarm, Switch, High/Low, Pulse Width Modulation, Thermostat, Status, Timer</td>
</tr>
<tr>
<td>WINDO</td>
<td>Window Output to GCM</td>
</tr>
</tbody>
</table>

TERMINAL CONNECTIONS AND LED INDICATORS

- ASD Bus Communications Wiring
- 5.1 V Source (20 mA)
- Universal Input or High Speed (10 per second)
- Pulse Counting Input
- Reset Button
- Status (Red)
- Address Switch
- Personal System Interface Receptacle
- Digital Outputs
- DO Status (Red)
- 24 Vac Power Supply Wiring

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1-888-444-1311
www.schneider-electric.com/buildings

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ACCESSORIES

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD-8969-101</td>
<td>10 k ohm shunt resistor kit for high speed count input</td>
</tr>
<tr>
<td>AD-8969-202</td>
<td>250 ohm shunt resistor kit for 4 to 20 mA analog input</td>
</tr>
<tr>
<td>AD-8969-206</td>
<td>11 k ohm shunt resistor kit for 10 k thermistor sensor (non-850 series)</td>
</tr>
<tr>
<td>AD-8961-220</td>
<td>Voltage divider (converts 1 to 11 Vdc signal to 0.5 to 5 Vdc signal)</td>
</tr>
<tr>
<td>AE-690</td>
<td>Accessory outboard gear panel</td>
</tr>
<tr>
<td></td>
<td>10-7/8 H x 8-1/2 W x 4-1/4 D in. (276 x 216 x 108 mm) for direct nipple connection to MZ2-1E and MZ2-1CE</td>
</tr>
<tr>
<td>ENCL-MZ800-PAN</td>
<td>Enclosure, panel mount</td>
</tr>
<tr>
<td></td>
<td>10-5/8 H x 8-1/2 W x 4-1/8 D in. (270 x 216 x 105)</td>
</tr>
<tr>
<td>ENCL-MZ800-WAL</td>
<td>Enclosure, wall mount</td>
</tr>
<tr>
<td></td>
<td>10-7/8 H x 8-1/2 W x 4-1/4 D in. (276 x 216 x 108 mm)</td>
</tr>
<tr>
<td>LAPT-80800-PSI</td>
<td>Personal System Interface software (see F-24317)</td>
</tr>
<tr>
<td>LAPT-80800-EPS-I</td>
<td>X tended Personal System Interface software (see F-24317)</td>
</tr>
</tbody>
</table>

MZII CONTROL SCHEMATIC OF A TYPICAL FAN TRACKING VAV AIR HANDLING SYSTEM

Note: All field wiring shall be twisted, shielded pairs.

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