



# MS-CTLPNL MicroScan Control Panel

## VARIETY OF CONTROLS

Controls are designed by an experienced project designer in response to the field determined control requirements.

## INTEGRATED CONTROL

Can accommodate up to three MicroScan UNV Controllers that can be connected to the building control system network via one of several available methods.

## UNIQUE DESIGN

Provides a termination point for most field located devices which makes troubleshooting convenient and easy .



The MicroScan Control Panel is comprised of a NEMA 1 enclosure containing up to three MicroScan Universal (UNV) controllers and other application specific design features. The control panel is designed as a standard product with application specific accommodations made for the specific controlled environment. The controls are designed by an experienced project designer in response to the field determined control requirements. Inside the panel provisions are made for mounting of all components, including control relays and safety circuits. The back panel is pre-wired at the factory for output controls (per the design drawings), communications, and power for the controllers(s). Additional controllers may be added to any available position in the panel.

Control panels include a main power switch and a power indicator lamp in addition to the 24 VAC power source for the MicroScan Controller card(s). A total of approximately 170 VA is available for the card(s). An additional 170 VA power source provides power for sensors and controls as well.

- Convenient and Rugged Mechanical Design
- Variety of Controls Supported
- Integrated Safety Circuits for Equipment
- Standard AC and Optional Communication Surge Protection
- Pre-Wired Outputs for Control Devices
- Design Customized to Application



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## TECHNICAL SPECIFICATIONS

### Physical

**Size:** 24"H x 20"W x 6"D (1-card model)

**Size:** 36"H x 30"W x 6"D (3-card model)

**Construction:** NEMA 1 standard. NEMA 4,12, or 3R optional

**Capacity:** 1 or 3 MicroScan Controller(s) depending on model selected.

**Weight:** 70 lbs. (1-card model)

**Weight:** 110 lbs. (3-card model)

**Color:** ANSI 61 Grey Powder

### Electrical

**Input:** 120 VAC + or - 10%, 60 Hz

**Output:** (Internal power supply) 24 VAC @ 7.0 Amps

### Environmental

**Temperature:** 0 to 50° C.

**Humidity:** 0 to 95% RH Non-Condensing

### Operation

**AC Surge Protection:** Standard unit includes protection for signals as defined in IEEE- C62.41.

**Communications Protection:** Optional Surge and Over-voltage protection for surges as defined in REA PE-60d and over-voltage protection for voltages of up to 480 VAC RMS at 60 Hz, mounted on the back panel.

### Communications

(from controller):

#### Ethernet

- one 10/100 MBps Port for networks
- Protocols: BACnet/IP

#### Serial

- Two selectable RS485/232 ports
- Speeds: 4800-38.4 kbps baud
- Protocol: BACnet MS/TP, N2, MODBUS

Specifications subject to change without notice

## Features and Benefits

The MicroScan Control Panel is used in conjunction with the MicroScan Universal Controllers (UNV) to provide integrated control of mechanical equipment in the building environment. The Control Panel itself consists of a fully integrated enclosure, back panel, power source assembly, and terminal blocks for termination of controlled field equipment. The Control Panel accommodates up to three MicroScan UNV Controllers. The MicroScan Control Panel can be connected to the building control system network via one of several available methods. These include RS-485, RS-232 or 10/100 Ethernet.

Standard surge and over-voltage protection for AC power is provided and optional communications surge may be ordered. The protection for AC power consists of an external gas-tube device connected to the AC power circuit. Communications protection is provided via the use of a combination device incorporating gas-tube, Metal Oxide Varistor (MOV), and current-limiting devices.

The unique design and construction of the control panel provides a termination point for most field located devices including valves, damper actuators, powered sensors, and field safety circuits. All control relays are located in the panel for convenience and ease of troubleshooting.

## Ordering Information

• **Part No. MS-CTLPNL1** — Includes NEMA 1 enclosure, mounting back plate, AC and output terminal blocks, 24 VAC power supplies, AC power distribution module with single outlet, fused output power, card positions for one Controller card, wiring duct, and pre-wired power and communications and output signal harness.

• **Part No. MS-CTLPNL3** — Same as above except provisions for three controller cards.

### OPTIONAL EQUIPMENT

To order options with your control panels, please add the desired option numbers listed below to the part number from above. Choose only one option for each type of option available, (i.e. one enclosure etc.).

Suffix	Options
-5	2 wire surge protector
-8	NEMA 4 Enclosure
-9	NEMA 12 Enclosure
-10	NEMA 3r Enclosure

*Note:* Controllers must be ordered separately.

### NEED ASSISTANCE ?

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