This guide provides specifications for Unitronics’ color touchscreen controller. You can find additional documentation on the Unitronics’ Setup CD and in the Technical Library at www.unitronicsplc.com.

Technical Specifications

**Power Supply**
- Input voltage: 24VDC
- Permissible range: 20.4-28.8VDC
- Max. current consumption: 320mA@24VDC

**Battery**
- Back-up: 7 years typical at 25°C, battery back-up for RTC and system data, including variable data.
- Replaceable: Yes, without opening the controller.

**Graphic Display Screen**
- LCD Type: TFT
- Illumination backlight: CCFL fluorescent lamp
- Display resolution, pixels: 320x240 (QVGA)
- Viewing area: 5.7”
- Colors: 65,536
- Touchscreen: Resistive, analog
- ‘Touch’ indication: Via buzzer
- Screen brightness: Via software (Store value to SI 9).
- Keypad: Displays virtual keyboard when the application requires data entry.

**Notes:**
1. Note that the LCD screen may have a single pixel that is permanently either black or white.

**Program**

<table>
<thead>
<tr>
<th>Memory size</th>
<th>Application Logic – 2MB, Images – 12MB, Fonts – 1MB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operand type</td>
<td>Quantity</td>
</tr>
<tr>
<td>Memory Bits</td>
<td>8192</td>
</tr>
<tr>
<td>Memory Integers</td>
<td>4096</td>
</tr>
<tr>
<td>Long Integers</td>
<td>512</td>
</tr>
<tr>
<td>Double Word</td>
<td>256</td>
</tr>
<tr>
<td>Memory Floats</td>
<td>64</td>
</tr>
<tr>
<td>Timers</td>
<td>384</td>
</tr>
<tr>
<td>Counters</td>
<td>32</td>
</tr>
</tbody>
</table>

- Data Tables: 120K dynamic data (recipe parameters, datalog, etc.)
- 192K fixed data (read-only data, ingredient names, etc)

**HMI displays**
- Up to 1024

**Program scan time**
- 9 µsec per 1K of typical application
Removable Memory
SD card
Compatible with fast SD cards; store datalogs, Alarms, Trends, Data Tables, backup Ladder, HMI, and OS. See Note 2

Notes:
2. User must format via Unitronics SD tools utility.

Communication
Serial ports 2. See Note 3
RS232
Galvanic isolation Yes
Voltage limits ±20VDC absolute maximum
Baud rate range 300 to 115200 bps
Cable length Up to 15m (50’)
RS485
Galvanic isolation Yes
Voltage limits −7 to +12VDC differential maximum
Baud rate range 300 to 115200 bps
Nodes Up to 32
Cable type Shielded twisted pair, in compliance with EIA RS485
Cable length 1200m maximum (4000’)
CANbus port
<table>
<thead>
<tr>
<th>CANopen</th>
<th>Unitronics’ CANbus protocols</th>
</tr>
</thead>
<tbody>
<tr>
<td>127</td>
<td>60</td>
</tr>
</tbody>
</table>

Power requirements 24VDC (±4%), 40mA max. per unit
Galvanic isolation Yes, between CANbus and controller
Cable length/baud rate

Optional port User may install a single Ethernet port, or an RS232/RS485 port. Available by separate order.

Notes:
3. The standard for each port is set to either RS232/RS485 according to DIP switch settings. Refer to the Installation Guide.

I/Os
Number of I/Os and types vary according to module. Supports up to 1000 digital, high-speed, and analog I/Os.
Snap-in I/O modules Plugs into rear port to create self-contained PLC with up to 62 I/Os.
Expansion modules
- Local adapter (P.N. EX-A1), via I/O Expansion Port. Integrate up to 8 I/O Expansion Modules comprising up to 128 additional I/Os.
- Remote adapter (P.N. EX-RC1), via CANbus port. Connect up to 60 adapters; connect up to 8 I/O expansion modules to each adapter.
Exp. port isolation Galvanic
### Dimensions

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>197X146.6X68.5mm (7.75” X 5.77” X2.7”)</td>
</tr>
<tr>
<td>Weight</td>
<td>750 gm (26.4 oz)</td>
</tr>
</tbody>
</table>

#### Notes:
4. For exact dimensions, refer to the product’s Installation Guide.

### Mounting

<table>
<thead>
<tr>
<th>Mounting Method</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panel-mounting</td>
<td>Via brackets</td>
</tr>
</tbody>
</table>

### Environment

<table>
<thead>
<tr>
<th>Environment Parameter</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inside cabinet</td>
<td>IP20 / NEMA1 (case)</td>
</tr>
<tr>
<td>Panel mounted</td>
<td>IP65/NEMA4X (front panel)</td>
</tr>
<tr>
<td>Operational temperature</td>
<td>0 to 50ºC (32 to 122ºF)</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>-20 to 60ºC (-4 to 140ºF)</td>
</tr>
<tr>
<td>Relative Humidity (RH)</td>
<td>5% to 95% (non-condensing)</td>
</tr>
</tbody>
</table>

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