Ordering Information
V700-T20BJ PLC with Flat panel, Color touch display 7"
You can find additional information, such as wiring diagrams, in the product’s installation guide located in the Technical Library at www.unitronics.com.

Power Supply
Input voltage 12 or 24VDC
Permissible range 10.2-28.8VDC
Max. current consumption 630mA@12V
320mA@24V

Graphic Display Screen
See Note 1
LCD Type TFT, LCD display
Illumination backlight White LED
Display resolution 800x480 pixels
Viewing area 7"
Colors 65,536 (16-bit)
Touchscreen Resistive, analog
‘Touch’ indication Via buzzer
Screen brightness control Via software (Store value to SI 9, values range: 0 to 100%)
Virtual 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
Memory size Application Logic – 2MB, Images – 60MB, Fonts – 1MB
Operand type Quantity Symbol Value
Memory Bits 8192 MB Bit (coil)
Memory Integers 4096 MI 16-bit
Long Integers 512 ML 32-bit
Double Word 256 DW 32-bit unsigned
Memory Floats 64 MF 32-bit
Fast Bits 1024 XB Bits (coil) – fast, not retained
Fast Integers 512 XI 16 bit - fast, not retained
Fast Long Integers 256 XL 32 bit - fast, not retained
Fast Double Word 64 XDW 32 bit unsigned - fast, not retained
Timers 384 T Res. 10 ms; max 99h, 59 min, 59.99s
Counters 32 C 16-bit

Data Tables 120K dynamic RAM data (recipe parameters, datalogs, etc.)
Up tp 256K Flash data (read-only data, ingredient names, etc)
Expandable via micro-SD card. See Removable Memory below

HMI displays Up to 1024
Program scan time 9 μsec per 1K of typical application
Removable Memory

Micro-SD card
Compatible with fast micro-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

Port 1
1 channel, RS232/RS485 and USB device. See Note 3
- Galvanic isolation: Yes
- Baud rate range: 300 to 115200 bps
- RS232
  - Voltage limits: ±20VDC absolute maximum
  - Cable length: Up to 15m (50’)
- RS485
  - Voltage limits: −7 to +12VDC differential maximum
  - Nodes: Up to 32
  - Cable type: Shielded twisted pair, in compliance with EIA RS485
  - Cable length: 1200m maximum (4000’)
- USB
  - Port type: Mini-B
  - Specification: USB 2.0 compliant; full speed
  - Cable: USB 2.0 compliant; up to 3m

Ethernet
- Port type: RJ45
- Transmission speed: 10/100Mbps
- Network topology: Star, based on external hub/switch
- Cable type: Category 5 STP (shielded twisted pair) is recommended; UTP (unshielded twisted pair) may also be used
- Drop line length: Up to 100 meters, controller to hub/switch or controller to controller.

Port 2 (optional)
See Note 5

CANbus (optional)
See Note 5

Notes:
3. This model is supplied with a serial port: RS232/RS485 (Port 1). The standard is set to either RS232 or RS485 according to DIP switch settings. Refer to the product’s Installation Guide.
4. Note that physically connecting a PC to the controller via USB suspends RS232/RS485 communications via Port 1. When the PC is disconnected, RS232/RS485 resumes.
5. The user may order and install one or both of the following modules:
   - A CANbus module
   Modules documentation is available on the Unitronics website.
## I/Os

Additional I/Os may be added. Configurations vary according to module. Supports digital, high-speed, analog, weight and temperature measurement I/Os.

**Snap-in I/O modules**
Plugs into rear port to create self-contained PLC with up to 62 I/Os.

**I/O Expansion**

- **Local**
  Via I/O Expansion Port. Integrate up to 8 I/O Expansion Modules comprising up to 128 additional I/Os. Adapter required (P.N. EX-A2X).

- **Remote**
  Via CANbus port. Connect up to 60 adapters to a distance of 1000 meters from controller; and up to 8 I/O expansion modules to each adapter (up to a total of 512 I/Os). Adapter required (P.N. EX-RC1).

**Galvanic isolation**
Yes

## Miscellaneous

**Clock (RTC)**
Real-time clock functions (date and time)

**Battery back-up**
7 years typical at 25°C, battery back-up for RTC and system data, including variable data

**Battery replacement**
Yes (without opening the controller). Coin-type 3V, lithium battery, CR2450

## Dimensions

<table>
<thead>
<tr>
<th>Size</th>
<th>210 x 146.4 x 42.3mm (8.26 x 5.76 x 1.66”). See Note 6</th>
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</thead>
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<tr>
<td>Weight</td>
<td>640g (22.57 oz)</td>
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**Notes:**
6. For exact dimensions, refer to the product’s Installation Guide.

## Environment

**Operational temperature**
0 to 50°C (32 to 122°F)

**Storage temperature**
-20 to 60°C (-4 to 140°F)

**Relative Humidity (RH)**
10% to 95% (non-condensing)

**Mounting method**
Panel mounted (IP65/66/NEMA4X)

**Operating Altitude**
2000m (6562 ft)

**Shock**
IEC 60068-2-27, 15G, 11ms duration

**Vibration**
IEC 60068-2-6, 5Hz to 8.4Hz, 3.5mm constant amplitude, 8.4Hz to 150Hz, 1G acceleration.