

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

LCD Type	See Note 1 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:

- 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 to 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	See Note 4
Port type	Mini-B
Galvanic isolation	No
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
Profibus (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 serial RS232/RS485 isolated/non-isolated interface module in port 2.
 - A CANbus module
 - A Profibus 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

Size	210 x 146.4 x 42.3mm (8.26 x 5.76 x 1.66"). See Note 6
Weight	640g (22.57 oz)

Notes:

- 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.

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