Vision™ HMI+PLC

Technical Specifications V700-T20BJ

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.

<u>Program</u>				
Memory size	Application	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	Т	Res. 10 ms; max 99h, 59 min, 59.99s	
Counters	32	С	16-bit	
Data Tables	100K dynamia DAM data (racina parametera dataloga eta)			

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

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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

Notes:

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

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:

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.

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