Vision™ OPLC™

Technical Specifications Models V570-57-T20B & V570-57-T20B-J

This guide provides specifications for Unitronics' color touchscreen controllers V570-57-T20B & V570-57-T20B-J . You can find additional documentation on the Unitronics' Setup CD and in the Technical Library at www.unitronics.com.

Technical Specifications

Power Supply

Input voltage 12 or 24VDC

Permissible range 10.2-28.8VDC with less than 10% ripple

Max. current consumption 540mA@12VDC 270mA@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 See Note 1

LCD Type TFT

Illumination backlight White LED

Display resolution, pixels 320x240 (QVGA)

Viewing area 5.7"

Colors 65,536 (16-bit)
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.

Memory size	Application Logic – 2MB, Images – 12MB, 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
Timers	384	Т	32-bit
Counters	32	С	16-bit

Data Tables 120K dynamic RAM data (recipe parameters, datalogs, etc.)

Up tp 256K Flash data

HMI displays Up to 1024

Program scan time 9 µsec per 1K of typical application

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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&4

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')

USB See Note 4
Port type Mini-B

Galvanic isolation No

Specification USB 2.0 compliant; full speed

Baud rate range 300 to 115200 bps

Cable USB 2.0 compliant; up to 3m

CANbus port 1. See Note 5

Nodes CANopen Unitronics' CANbus protocols

127 60

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

500 m

 Cable length/baud rate
 25 m
 1 Mbit/s

 See Note 3
 100 m
 500 Kbit/s

 250 m
 250 Kbit/s

 500 m
 125 Kbit/s

1000 m* 50 Kbit/s * If you require cable lengths over 500 mt 20 Kbit/s meters, contact technical support.

Optional port User may install a single Ethernet port, or an RS232/RS485 port.

100 Kbit/s

Available by separate order.

Notes:

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

4. The USB port may be used for programming, OS download, and PC access. Note that COM port 1 function is suspended when this port is physically connected to a PC.

 V570-57-T20B & V570-57-T20B-J supports both 12 and 24VDC CANbus power supply, (±4%), 40mA maximum per unit. Note that if 12 VDC is used, the maximum cable length is 150 meters.

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I/Os

Number of I/Os and types vary according to module. Supports up to

1024 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-A2X), 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

Size 197X146.6X68.5mm (7.75" X 5.77" X2.7"). See Note 6

Weight 750 gm (26.4 oz)

Notes:

6. For exact dimensions, refer to the product's Installation Guide.

Mounting

Panel-mounting Via brackets

Environment

Inside cabinet IP20 / NEMA1 (case)

Panel mounted V570-57-T20B V570-57-T20B-J

IP65/NEMA4X IP65/66/NEMA4X

(front panel) (front panel)

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

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

Relative Humidity (RH) 5% to 95% (non-condensing)

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