Vision™ OPLC™

Technical Specifications
Models V230/260/280/290

This guide provides specifications for Unitronics' models V230-13-B20B, V260-16-B20B, V280-18-B20B, V290-19-B20B.

You can find additional information on the Unitronics Setup CD and in the Technical Library at www.unitronics.com.

Technical Specifications

Power Supply

Input voltage	12VDC or 24VDC			
Permissible range	10.2VDC to 28.8VDC with less than 10% ripple			
Max. current consumption				
	V230	**V260**	**V280**	**V290**
@12VDC	280mA	460mA	540mA	470mA
@24VDC	140mA	220mA	270mA	230mA
Typical power consumption	2.5W	4.2W	5.4W	5.1W

Battery

Back-up	7 years typical at 25°C, battery back-up for RTC and system data, including variable data.
Replacement	Yes. Refer to instructions in the document: *Replacing a Battery V230-260-280-290.pdf*, available from Unitronics' Technical Library.

Graphic Display Screen

	V230	**V260**	**V280**	**V290**
LCD Type	STN	Neg. blue STN	Graphic B&W FSTN	
Illumination backlight	LED yellow-green	CCFL fluorescent lamp		
Display resolution, pixels	128x64	240x64	320x240 (QVGA)	
Viewing area	3.2"	5.4"	4.7"	5.7"
Touchscreen	None		Resistive, analog	
'Touch' indication	None		Software (SB16)	Software (SB16); Via buzzer
Screen contrast	Manually adjusted. Refer to VisiLogic Help topic: *Setting LCD Contrast/Brightness*		Via software (Store value to SI 7). Refer to VisiLogic Help topic: *Setting LCD Contrast/Brightness*	

Keyboard

	V230	**V260**	**V280**	**V290**
Number of keys	24	33	27	none (virtual)
	Includes soft keys and alphanumeric keypad			
Key type	Metal dome, sealed membrane switch			none
Slides	Picture, alphanumeric keypad, and Function keys			none

Program

Application memory: 1MB

Operand type	Quantity	Symbol	Value
Memory Bits	4096	MB	Bit (coil)
Memory Integers	2048	MI	16-bit signed/unsigned
Long Integers	256	ML	32-bit signed/unsigned
Double Word	64	DW	32-bit unsigned
Memory Floats	24	MF	32-bit signed/unsigned
Timers	192	T	32-bit
Counters	24	C	16-bit

Data Tables	120K (dynamic)/192K (static)
HMI Displays	Up to 255
Scan Time	30µsec per 1K of typical application

Communication

Serial Ports: 2. See Note 1

RS232

Galvanic isolation	No
Voltage limits	±20V absolute maximum

Baud rate range

COM1	COM2
300 to 57600 bps	300 to 115200 bps

Cable length: Up to 15m (50′)

RS485

Galvanic isolation	No
Voltage limits	−7 to +12V differential maximum
Baud rates	300 to 115200 bps
Nodes	Up to 32
Cable type	Shielded twisted pair, in compliance with EIA RS485
Cable length	Up to 1200m (4000′)

CANbus port: 1

Nodes

CANopen	Unitronics' CANbus protocols
127	60

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

Cable length/baud rate

25 m	1 Mbit/s	
100 m	500 Kbit/s	
250 m	250 Kbit/s	
500 m	125 Kbit/s	
500 m	100 Kbit/s	
1000 m*	50 Kbit/s	* If you require cable lengths over 500 meters, contact technical support.
1000 m*	20 Kbit/s	

Optional port: User may install an additional port, available by separate order. Available port types are: RS232/RS485, and Ethernet.

Notes:

1. COM1 supports RS232 only.
   COM2 may be set to either RS232/RS485 according to jumper settings as shown in the product's Installation Guide. Factory setting: RS232.

I/Os

Via module	Number of I/Os and types vary according to module. Supports up to 256 digital, high-speed, and analog I/Os.
Snap-in I/O modules	Plugs into rear port to create self-contained PLC with up to 43 I/Os.
Expansion modules	Local adapter, via I/O Expansion Port. Integrate up to 8 I/O Expansion Modules comprising up to 128 additional I/Os.
	Remote I/O adapter, via CANbus port. Connect up to 60 adapters; connect up to 8 I/O expansion modules to each adapter.

Dimensions

Size: See mechanical drawings in the document *V230_260_280_290 Installation Guide.pdf*, available from Unitronics' Technical Library.

	V230	V260	V280	V290
Weight	429g (15.1 oz)	695g (24.5 oz)	860g (30.4 oz)	840g (29.7 oz)

Mounting

Panel-mounting	Via brackets

Environment

Inside cabinet	IP20 / NEMA1 (case)
Panel mounted	IP65 / NEMA4X (front panel)
Operational temperature	0 to 50ºC (32 to 122ºF)
Storage temperature	-20 to 60ºC (-4 to 140ºF)
Relative Humidity (RH)	5% to 95% (non-condensing)

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