V100-17-RS4 V100-17-RS4X RS232/485 Module

This guide provides specifications for Unitronics' communication modules V100-17-RS4, V100-17-RS4X.

You can find additional information, such as wiring diagrams, in the product's installation guide located on the Unitronics' Setup CD and in the Technical Library at www.unitronics.com.

V100-17-RS4 (not isolated) V100-17-RS4X (isolated) Serial Modules

Use these modules to add an additional serial communication port to the controller.

- Use RS232 to download programs from a PC, and to communicate with serial devices and applications, such as SCADA.
- Use RS485 to create a multi-drop network containing up to 32 devices.

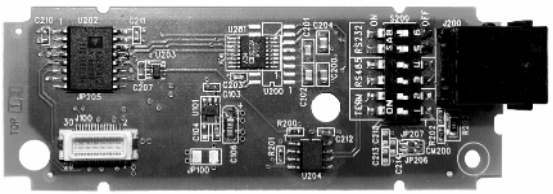
The modules are identical except for isolation. Module ports are type RJ-11 and may be set to **either** RS232 or RS485 via wiring and DIP switch settings, in accordance with the table on page 2.

To connect a PC to a port that is set to RS485, remove the RS485 connector, and connect the PC to the PLC via the programming cable. Note that this is possible only if flow control signals are not used (which is the standard case).

Standard Kit contents

RS232/485 Module

RS485 cable



Caution

- Signals are related to the controller's 0V; the same 0V is used by the power supply.
- Do not connect the device directly to a telephone or telephone line.
- Note that the V100-17-RS4 port is not isolated. If the controller is used with a non-isolated external device, avoid potential voltage that exceeds ± 10V. To avoid damaging the system, all non-isolated device ports should relate to the same ground signal.

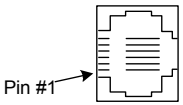
Pinouts

The pinouts below show the PLC port signals.

RS232	
Pin #	**Description**
1*	DTR signal
2	0V reference
3	TXD signal
4	RXD signal
5	0V reference
6*	DSR signal

RS485**	
Pin #	**Description**
1	A signal (+)
2	(RS232 signal)
3	(RS232 signal)
4	(RS232 signal)
5	(RS232 signal)
6	B signal (-)

Controller Port



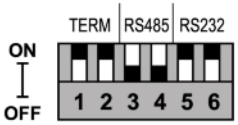
*Standard programming cables do not provide connection points for pins 1 and 6.

**When a port is adapted to RS485, Pin 1 (DTR) is used for signal A, and Pin 6 (DSR) signal is used for signal B.

RS232 to RS485: Changing DIP Switch Settings

The port is set to RS232, termination ON, by factory default.

	Switch Settings					
	1	**2**	**3**	**4**	**5**	**6**
RS232*	ON	ON	OFF	OFF	ON	ON
RS485	OFF	OFF	ON	ON	OFF	OFF
RS485 with termination**	ON	ON	ON	ON	OFF	OFF



*Default factory setting

**Causes the unit to function as an end unit in an RS485 network

V100-17-RS4 V100-17-RS4X Technical Specifications

RS232 Port Specifications

Voltage limits	±20V
Input voltage	±20VDC absolute maximum
Cable length	15m maximum (50 feet)

RS485 Port Specifications

Input Voltage	-7 to +12V differential max.
Cable type	Shielded twisted pair, in compliance with EIA RS485
Cable length	1200m maximum (4000 feet)
Baud rate	300– 115,200 bps
Nodes	Up to 32

Isolation

V100-17-RS4	No
V100-17-RS4-X	Yes

Weight

V100-17-RS4/X	12.6g (0.44 oz)

DSP-V100-RS4-X 12-07