



Yaskawa

G5 Drives

Overview

Maple Systems' **BLU300 Series** Operator Interface Terminals (Maple OITs) communicate with Yaskawa G5 Drives using the Modbus RTU protocol. When configured with BlueLeaf configuration software, the Maple OIT is the master in a point-to-point single master, single slave format.

Compatible Controllers	
Family	Model
G5 Drives	G5

Communications Cable

The Maple OIT should be connected to the G5 Drive's 6CN RS232 serial communications port.

A list of communications cables offered by Maple Systems as well as cable assembly instructions to assist you in assembling your own communications cable are available on our website at www.maple-systems.com/cables.htm.

WARNING: If your communications cable is not wired exactly as shown in our cable assembly instructions, damage to the OIT or loss of communications can result.

Controller Settings

The VG5 serial communications protocol is Modbus RTU slave.

Name	Default	Options
Communications Address	31	1 - 31
Baud Rate	9600	1200, 2400, 4800, 9600, 19200
Parity	None	None, Even, Odd

Accessible Memory

Register Memory

The following table lists the controller's register memory ranges that the Maple OITs are able to access. Please note that your controller's memory range may be *smaller* or *larger* than that supported by these OITs. The following register memory can be displayed in 16, or 32 bit format on the Maple OIT.

Controller Register Address	Controller Register Description
30001 - 39999	Input Register
40001 - 49999	Output Register

Discrete Memory

The following table lists the controller's discrete memory ranges that the Maple OITs are able to access. Please note that your controller's memory range may be *smaller* or *larger* than that supported by these OITs. The following discrete memory is displayable in single-bit format on the Maple OIT.

Controller Bit Address	Controller Bit Description
00001 - 09999	Discrete Outputs
10001 - 19999	Discrete Inputs

Important Memory Considerations

If your controller's memory range is smaller than the range supported by the Maple OITs, it is possible to configure the OIT to monitor a controller memory address which does not exist. Since this can cause unpredictable results, when you configure the OIT please ensure that all selected controller memory addresses are valid for your controller model.

Do not configure the OIT to write to any controller memory address which should only be written to by the controller.

The Maple OITs use the following Modbus function codes:

- 01 - Read output coils (ex. 00001)
- 02 - Read input coils (ex. 10001)
- 03 - Read data registers (ex. 40001)
- 04 - Read input registers (ex. 30001)
- 05 - Write output coils (ex. 00001)
- 06 - Write data registers (ex. 40001)

BlueLeaf Communication Settings

The following table lists the communications settings that must be configured in BlueLeaf software. These settings can be found in the Tools...HMI-PLC Communications Settings menu.

- The **Recommended Settings** column provides recommended settings based upon the default settings most commonly used in the Yaskawa controller
- The **Options** column lists BlueLeaf's options; your controller may not support every option.

Name	Default	Options	Important Notes
PLC Type	Modbus RTU Master		
Com Port	RS232	RS232, RS485 (2-wire only)	Tools...Set HMI-PLC Port
Baud Rate	9600	115200, 57600, 38400, 19200, 9600, 4800	Must match the Drive's port settings. Use the fastest baud rate supported by both.
Data bits	8	7, 8	Must match the Drive's port settings
Stop bits	1	1, 2	Must match the Drive's port settings
Parity	None	Even, Odd, None	Must match the Drive's port settings
Net Addr:	31	0-255	Must match the Drive's port setting (configure in each object attribute).