

The Panther Predator and Phantom systems have the ability to provide input and output signals over an ethernet network via the Modbus protocol. These signals allow a host system to interface with the Panther system(s) and collect information on the machine's current status.

The Panther system(s) can then integrate with the rest of the equipment within the host's program. The Modbus interface also allows a host system to transmit signals such as apply, reset, and bypass.

The process image for the Panther interface is shown below.

The following is for Register (Word) Access Reading (with FC3, FC4, and FC23), and Register (Word) Access Writing (with FC6, FC16, FC22, and FC23).

Usage	Modbus Address	
	[dec]	[hex]
Panther Physical Inputs/Outputs	0 ... 255	0x0000 ... 0x00FF
Panther Reserved Memory	500 ... 979	0x01F4 ... 0x03D3
Panther MODBUS Outputs	980 ... 989	0x03D4 ... 0x03DD
Panther MODBUS Inputs	990 ... 999	0x03DE ... 0x03E7

Panther Modbus Outputs (from Panther to Host)

Note: All MODBUS TCP communication is done via port 2020, Unit ID 1

MODBUS Address	Signal
980.0	Print Engine Power
980.1	Print Engine Error
980.2	Ribbon Low
980.3	Label Out
980.4	Online/Data Ready
980.5	Ribbon Out
980.6	RFID Error
980.7	Panther Fault
980.8	Cycle Complete
980.9	Applicator Home
980.10	Low Label
980.11	LOTAR
980.12	Scanner Good Read
980.13	Scanner Bad Read
980.14	Bypass Is On
980.15	Heart Beat
981.1	Slide Home
981.2 - 981.15	Reserved
982.0	Apply Cycle Time
983.0	Print Cycle Time
984.0	Error Code

The following Outputs are only available when an automated servo stand option is purchased:

985.0	Servo Stand Error
985.1	Servo Stand Lower Limit Sensor
985.2	Servo Stand Upper Limit Sensor
985.3	Servo Stand In Home Position
985.4	Servo Stand In Motion
985.5	Servo Stand In Labeling Position
985.6	Servo Stand E-Stop Engaged
985.7	Servo Stand Power
985.8	Servo Stand Heartbeat
986.0	Last Servo Stand Height Submitted

Panther Modbus Inputs (from Host to Panther)

Note: All MODBUS TCP communication is done via port 2020, Unit ID 1

MODBUS Address	Signal
990.0	Trigger 1
990.1	Trigger 2
990.2	Reset
990.3	Bypass
990.4	Reserved
990.5	Reserved
990.6	Carton Height Submit
990.7 - 990.15	Reserved
991.0	Carton Height

The following Inputs are only available when an automated servo stand option is purchased:

992.0	Servo Stand Reset
992.1	Servo Stand Bypass
992.2	Servo Stand Height Submit
992.3	Servo Stand Motion Inhibit
992.4 - 992.15	Servo Stand Reserved for Future Use
993.0	Servo Stand Height