

C O N T R O L L E R I N F O R M A T I O N S H E E T

Maple Model(s)

HMI5000 Series

PLC or Controller

Crouzet CD-12



Summary

Maple Systems' **HMI5000 Series** Human/Machine Interface Terminals (Maple HMIs) communicate with Crouzet Controllers using the Crouzet protocol. When configured with EZware-5000, the Maple HMI is the master in a point-to-point single master, multiple slave format. Please refer to the *Installation and Operations Manual* for information on connecting multiple Maple HMIs to a single PLC port.

Compatible PLCs

Family	Model
CD-12	All

Communications Cable

The Maple HMI should be connected to the PLC through the Millenium 3's #88970102 cable. 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.maplesystems.com.

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

PLC Controller Settings

The PLC station # in EasyBuilder-5000 must match the PLC's Node ID.

Accessible PLC Memory

Register Memory

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

(Note: d=decimal)

PLC Register Type	Address Range	Format	PLC Register Description
AI	1-99	ddd	Analog Input
T	1-12	dd	Timer
C	1-16	dd	Counter
SL_IN	1-24	dd	Serial Link Input
SL_OUT	25-48	dd	Serial Link Output (read only)

Discrete Memory

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

(Note: d=decimal b=bit)

PLC Bit Type	Address Range	Format	PLC Bit Description
I	1-99	dd	Input
O	1-99	dd	Output
M	1-28	dd	Relay
SLI_bit	10.0-24.F	dd.b	Serial Link Input
SLO_bit	25.0 0 48.F	dd.b	Serial Link Output (read only)

Important Memory Considerations

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

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

EZware Settings

The following table lists the communications settings that must be configured in EZware. These settings can be found in the *Edit-Set System Parameters* menu under the *Device* tab. Please note:

- The **Recommended Settings** column provides the recommended setting based upon the default settings most commonly used in the Crouzet Controllers.
- The **Options** column lists EZware's options; your PLC may not support every option

Name	Recommended Settings	Options	Important Notes
Name:	Crouzet CD-12		Description label
HMI or PLC	PLC		
Location	Local	Local, Remote	Select <i>Local</i> if PLC directly connected to HMI, <i>Remote</i> if PLC connected thru another HMI.
PLC type:	Crouzet CD-12		
PLC I/F:	RS-232	RS-232, RS-485 2W, RS-485 4W, Ethernet	Must match the controller port setting.
PLC default station no.:	1	0-255	Must match the controller's setting.
Setting: COM:	COM1	COM1-COM3	Serial port of the HMI connected to the controller.

Name	Recommended Settings	Options	Important Notes
Settings: Baud rate	115200	9600, 19200, 38400, 57600, 115200	Must match the controller port setting. Use the fastest baud rate supported by the controller.
Settings: Data Bits	7	7 or 8	Must match the controller port setting.
Settings: Stop Bits	1	1 or 2	Must match the controller port setting.
Settings: Parity:	Even	Even, Odd, None	Must match the controller port setting.
Settings: Timeout (sec)	1.0	0.1 to 25.5	Adjust if longer timeout is required.
Settings: Turn around delay (ms):	0	0-1000	Timeout period between HMI polls.
Settings: Parameter 1 :	0		Not Applicable
Settings: Parameter 2:	0		Not Applicable
Settings: Parameter 3:	0		Not Applicable
Interval of block pack (words):	5	0-512	<i>See HMI5000 Series Programming Manual (Maple p/n 1010-1007)</i>
Max. read-command size (words):	16		Not Adjustable
Max. write-command size (words):	16		Not Adjustable