H2-EBC(100) Analog Module Addressing

# Appendix F

In This Appendix...

H2-EBC(100) Analog Module Addressing - H2/4-ERM(100)

When using an ERM to EBC configuration, the analog module data in the H2-EBC(100) base is mapped to V-memory or Discrete I/O. Certain Diagnostics Data is not automatically mapped. If needed, the Diagnostics Data can be accessed as described in H24-ERM-M Appendix B.

The ERM Workbench software will tell you what the mapping is for each I/O module in the H2-EBC(100) base. Once you have configured the H2-ERM(100) or H4-ERM(100) using ERM Workbench you will get a screen similar to the following:
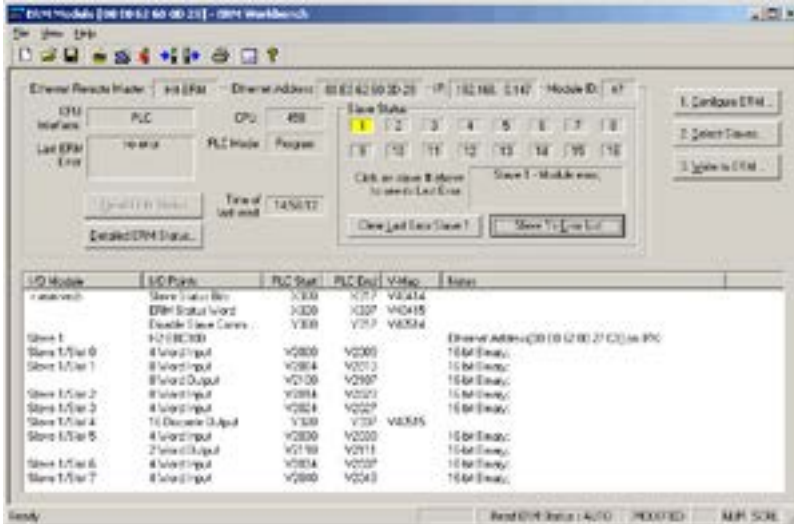
For the example above, the I/O configuration for Slave 1 is:

    Slot 0 = F2-04THM
    Slot 1 = F2-8AD4DA-1
    Slot 2 = F2-08AD-1
    Slot 3 = F2-04RTD
    Slot 4 = D2-12TR
    Slot 5 = F2-4AD2DA
    Slot 6 = F2-04AD-2
    Slot 7 = F2-04AD-1

Use the addresses shown in the ERM Workbench along with the following table to access the analog I/O with your ERM master.

For example, to configure the input resolution of the F2-8AD4DA-1 module located in Slot 1 of the system, the data provided above along with the table below would show that V memory location V2104 is required. Also, to read the current temperature detected by Channel 3 of the RTD module in Slot 3, V memory location V2026 is required.

H2-EBC(100) Analog Module Addressing - H2-ERM(100)			
Part Number	**Channel Data**	**Module Configuration Data**	**Diagnostics Data***
F2-04AD-1 (L) **F2-04AD-2 (L)**	Input Words: Word 1 = Ch1 Word 2 = Ch2 Word 3 = Ch3 Word 4 = Ch4	None	No Broken Transmitter Detection If No 24VDC or No Terminal Block: • All channels = 0 counts • 'Error' = 121** • 'Other' = Cycles 1 thru 3***
F2-08AD-1	Input Words: Word 1 = Ch1 Word 2 = Ch2 Word 3 = Ch3 Word 4 = Ch4 Word 5 = Ch5 Word 6 = Ch6 Word 7 = Ch7 Word 8 = Ch8	None	Channels with broken transmitter: • Channel=0 counts • 'Error' =121** • 'I/O Module Status Word 1' = Channel Number** If No 24VDC or No Terminal Block: • All channels = 0 counts • 'Error' =121** • 'Other' = Cycles 1 thru 7***
F2-08AD-2	Input Words: Word 1 = Ch1 Word 2 = Ch2 Word 3 = Ch3 Word 4 = Ch4 Word 5 = Ch5 Word 6 = Ch6 Word 7 = Ch7 Word 8 = Ch8	None	No Broken Transmitter Detection If No 24VDC or No Terminal Block: • All channels = 0 counts • 'Error' =121** • 'Other' = Cycles 1 thru 7***
F2-4AD2DA	Input Words: Word 1 = Ch1 Word 2 = Ch2 Word 3 = Ch3 Word 4 = Ch4 Output Words: Word 1 = Ch1 Word 2 = Ch2	None	No Broken Transmitter Detection If No 24VDC or No Terminal Block: • All channels = 0 counts • 'Error' =121** • 'Other' = Cycles 1 thru 3***
F2-8AD4DA-1	Input Words: Word 1 = Ch1 Word 2 = Ch2 Word 3 = Ch3 Word 4 = Ch4 Word 5 = Ch5 Word 6 = Ch6 Word 7 = Ch7 Word 8 = Ch8 Output Words: Word 1 = Ch1 Word 2 = Ch2 Word 3 = Ch3 Word 4 = Ch4	Output Words: Word 5 = Input Resolution Word 6 = N/A Word 7 = Track and Hold Word 8 = Not Used	Channels with broken transmitter: • Channel=0 counts • 'Error' = 142** • 'I/O Module Status Word 1' = Bit On for Each Channel with Broken Transmitter** If No 24VDC or No Terminal Block: • All channels = 0 counts • 'Error' =142** • 'Other' = 0xFF***

* Diagnostics Data is not automatically mapped. If needed, the Diagnostics Data can be accessed via ERM Workbench or ladder as described in H24-ERM-M Appendix B.

** See Extended Slave Error Codes in Appendix B for further details.

*** 'Other' is a field accessible only in ERM Workbench by clicking the button: Slave N's Error List. This field cannot be read programmatically.

| H2-EBC(100) Analog Module Addressing - H2-ERM(100)			
Part Number	**Channel Data**	**Module Configuration Data**	**Diagnostics Data***
F2-8AD4DA-2	Input Words: Word 1 = Ch1 Word 2 = Ch2 Word 3 = Ch3 Word 4 = Ch4 Word 5 = Ch5 Word 6 = Ch6 Word 7 = Ch7 Word 8 = Ch8 Output Words: Word 1 = Ch1 Word 2 = Ch2 Word 3 = Ch3 Word 4 = Ch4	Output Words: Word 5 = Input Resolution Word 6 = Range Selection Word 7 = Track and Hold Word 8 = Not Used	No Broken Transmitter Detection If No 24VDC or No Terminal Block: • All channels = 0 counts • 'Error' =121** • 'Other' = 0xFF***
F2-04THM **F2-04RTD**	Input Words: Word 1 = Ch1 Word 2 = Ch2 Word 3 = Ch3 Word 4 = Ch4	None	Channels with broken transmitter: • Channel=0 counts • 'Error' = 142d** • 'I/O Module Status Word 1' = Bit On for Each Channel with Broken Transmitter** If No 24VDC or No Terminal Block: • All channels = 0 counts • 'Error' =121** • 'Other' = 0x0F***
F2-02DA-1(L) **F2-02DA-2(L)**	Output Words: Word 1 = Ch1 Word 2 = Ch2	None	None
F2-02DAS-1 **F2-02DAS-2**	Output Words: Word 1 = Ch1 Word 2 = Ch2	None	None
F2-08DA-1 **F2-08DA-2**	Output Words: Word 1 = Ch1 Word 2 = Ch2 Word 3 = Ch3 Word 4 = Ch4 Word 5 = Ch5 Word 6 = Ch6 Word 7 = Ch7 Word 8 = Ch8	None	None

* Diagnostics Data is not automatically mapped. If needed, the Diagnostics Data can be accessed via ERM Workbench or ladder as described in H24-ERM-M Appendix B.

** See Extended Slave Error Codes in Appendix B for further details.

*** 'Other' is a field accessible only in ERM Workbench by clicking the button: Slave N's Error List. This field cannot be read programmatically.

F2-04RTD Example (Module in Slot 3)

Using the 'ERM Workbench' dialog below and the 'H2-EBC(100) Analog Module Addressing - H2-ERM(100)' chart above, we can find the addresses that contain channel data for the F2-04RTD module in Slot 3. Diagnostics Data is not automatically mapped. If needed, the Diagnostics Data can be accessed via ERM Workbench or ladder as described in H24-ERM-M Appendix B.
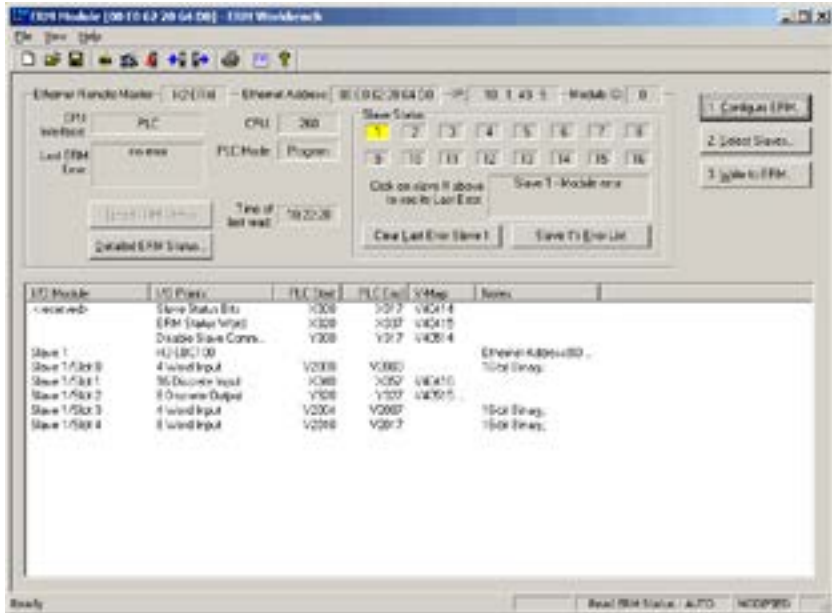
Input Channel	Address	Error Words
Channel 1	V2004	The Slave Diagnostic Word for slot 3 would be mapped to V + 7 (the eighth address in your chosen V-memory range). The H24-ERM-M manual Appendix B contains an example.
Channel 2	V2005	
Channel 3	V2006	
Channel 4	V2007	