

SEW MOVILINK Master Driver

Information Sheet for Crimson v2.0

Compatible Devices

- SEW MOVIDRIVE A
- SEW MOVITRAC
- SEW MOVIDRIVE B

Verified Device

SEW MOVIDRIVE MDX60A
SEW MOVIDRIVE MDX60B

Accessing Data

NOTE: Parameter values are obtained in the same engineering unit as is received from the SEW drive. Likewise, values written to each parameter should be in the engineering unit that the drive expects within a serial command. Engineering units are specified as applicable in "Selection Address for MOVILINK" dialog box.

Simply select the parameter to be accessed in the list box then select the desired service.

IPOS Variables are configured via Data Item "H" in the parameter list box. Upon selection of this item, an edit box will be enabled to allow selection of a variable from H0 to H511. Index Selections from 8300 to 25000 are configured Data Item "I" in the parameter list box.

Process data access is also available. Process output data is configured via Data Item "PD". This process output data is sent to the drive via Data Item "SPD" where the user can select the process data length and cyclical transmissions. Please refer to the "Process Data Access" section for information using these commands.

Service Codes

Available Services are as follows:

- Read/Write*
- Read/Write Volatile

*WARNING: Use Read/Write sparingly since memory modules in the SEW drive only permit a limited number of write cycles.

Process Data Access

For proper process data access, Parameter 100 "Setpoint source" and/or Parameter 101 "Control signal source" of the SEW drive should be set to RS485 as appropriate for the current application.

Process output data (configurable via Data Item "PD") is initialized to 0 at power up of the HMI terminal and entry of the process output data saves the values to the HMI terminal. For proper operation, it is recommended that the process output data be assigned to a data tag with "Write" access. Process output data is sent via Data Item "SPD" where the process data length and transmission type is defined. Cyclical transmissions should be checked when it is desired to allow the SEW drive to perform timeout monitoring and fault itself in the event that a communication breakdown occurs. The appropriate "SPD" item should always be cleared (set to zero) after each non-zero write to ensure proper operation.

NOTE: It is the users responsibility to assure that the process output data is initialized appropriately before the send command is issued. Also, an appropriate process data length should be chosen for the application.

The actual process output data can be read through Parameters 094-096 as the actual process input data can be read through Parameters 097-099.

Special Parameter Number - Latest Exception Code

Parameter Number 9999, Latest Exception Code, has been added as a parameter selection. If an invalid command occurs, the exception code returned by the drive is stored in the interface. This is a 32-bit value, the most significant 16 bits contain the index number, and the least significant 16 bits contain the exception code. Supported Exception Codes are presented in the following table.

Exception Code (hex)	Meaning
00	No error
10	Invalid parameter index
11	Function/parameter not implemented
12	Read access only
13	Parameter lock is active
14	Factory setting is active
15	Parameter value too large
16	Parameter value too small
17	Option card required for this function/parameter missing
18	Error in system software
19	Parameter access via RS-485 process interface on X13 only
1A	Parameter access via RS-485 diagnostic interface only
1B	Parameter has access protection
1C	Controller inhibit required
1D	Incorrect parameter value
1E	Factory setting was activated
1F	Parameter was not saved in EEPROM
20	Parameter cannot be changed with enabled output stage
0505	Special Case: Errors in parameter settings

An example of a Latest Exception Code would be 15(hex) if the operator attempted to set the Filter Setpoint (parameter 115, index number 2114(hex) to a value greater than 100,000. Displaying the Latest Exception Code with an 8 digit hexadecimal format would appear as 21140015.

The Latest Exception Code is set to 0 when the interface is powered on. Only the latest value is kept. Crimson has numerous tools for assigning text to a value, or keeping a historical record.

Cable Information

G3 RS485 Port	SEW Eurodrive
Pin 1	RS-485 +
Pin 2	RS-485 –
Pin 6	GND

Revision History

1 - 15 April 2004 – Revised configuration data access notes (Accessing Data, Service Code, and Process Data Access).
 2 – 31 July 2009 – Added MOVIDRIVE B info.