
EUROTHERM / PARVEX DIGIVEX via CIM03

Application Note

This document describes how to configure a Paradigm operator interface terminal to allow communications with a DIGIVEX drive via CIM03. The communications protocol supports access to pertinent parameters. Please read this document carefully before attempting to configure communications with these devices.

Introduction

The EDICT-97 configuration software has been designed to allow the user to enter commands in a manner that should be familiar to the user of the DIGIVEX drive.

Accessing Data

The programmer may configure parameters by using the "Register Selection for DIGIVEX" dialog box, or by key entry.

Using "Register Selection for DIGIVEX" Dialog Box

Simply select the index and the sub index to be accessed by the controls provided.

Key Entry

Parameters may also be entered directly in the "Block Address List" by typing the desired index followed by sub index separated by a colon as follows:

index:subindex

If the sub index to be accessed is equivalent to 0, simply type in the index number.

Data Types

Communication Blocks should be constructed so that each block contains a single data type. The programmer must select the appropriate Data Type for each block, based on the table below.

| DIGIVEX Data Type | Edict-97 Data Type |
|--|---------------------------|
| D - Double precision | Not Supported |
| F - Float | floating point |
| F2 - Float represented by character string | String[32]* |
| E - 32 bit integer | 16 or 32 bit integer |
| B - Bit | 16 or 32 bit integer |
| C1 - Character string | String[32]* |

*Only 16 character writes are supported.

NOTE: Index / sub index combinations can be selected that may not exist in the DIGIVEX drive. It is up to the programmer to verify that the requested parameter exists.

Special Index / Sub Index Combinations - Latest Error Code

Index 32767 is assigned to provide information pertaining to the Latest Error Code received by the drive. If an invalid request occurs, the exception information returned by the drive is stored in the interface. Requests and information received is detailed in the chart below.

| Index:SubIndex | Information Received |
|-----------------------|--------------------------------|
| 32767 | Index of Latest Error Code |
| 32767:1 | Sub Index of Latest Error Code |
| 32767:2 | Actual Error Code* |

*Error codes are more easily viewed in hexadecimal format. The integer item template may be configured as follows <16>0000 0000. Error Code information will appear in the following order: Error Class, Error Code, Additional Code, high byte, Additional Code, low byte.

These index / sub index combinations may be included in any Communications Block configured for a data type of 32-bit integer.

For Error Code definitions, please refer to the latest CAN bus access info via CIM03, published by Parvex.

Latest Error Code information is read only, and will be set to 0 when the interface is powered on. Only the latest value is kept. Edict-97 has numerous tools for assigning text to a value, or keeping a historical record.

Communications Mode

The default configuration for Edict97 is:

Port 2 - RS232

9600 baud

8 bits

No Parity

1 Stop Bit

Device Address - 1

Knowledge of Unit Operation Is Assumed

In all cases, the simple principle of 'pass-through' is maintained: there is no attempt to validate a value in terms of the end use of the unit: both familiarity with the Drive functions and knowledge of system operation are assumed.

Use Red Lion Part # P895047Z (RS232 to DB9 Male)**RS232 Connection**

| Paradigm RS232 Port | CIM03 |
|----------------------------|--------------|
| Terminal 1 | 3 |
| Terminal 2 | 2 |
| Terminal 5 | 5 |

In addition, connect a jumper between 3 and 4 of the Paradigm.