ED2 Advanced Digital Encoder Display

Description

The ED2 is no longer offered for sale. This product has been succeeded by the ED3 Digital Encoder Display.

The **ED2** can display the count/position data for up to two incremental encoders or one absolute encoder and one incremental encoder. The **ED2** has two display registers and one display LCD which gives it the ability to simultaneously keep track of two separate encoder channels. A button on the front of the **ED2** allows the user to select which register to display. This device can also be used as a remote display, displaying values sent from a PC via a serial link. The **ED2** can be powered from a power supply, or can draw its power from the US Digital SEI bus.

The unit is constructed of a lightweight, high impact plastic case with a clear viewing window. The **ED2** offers 8 large 0.5 inch high digits with blue backlighting. When properly installed, the front panel is sealed for wash-down and dusty environments.

By default, the **ED2** is configured to display two 360 CPR incremental encoders. Different resolutions, advanced functions and interfacing to a computer are achieved using the AD2B (requires a serial COM port). **We** do not recommend using the SEI-USB to configure an ED2.

Features

- Large 0.5" high digits, LCD with blue backlight
- Bidirectional count or rate display
- Count speeds up to 2MHz (300KHz in quadrature mode)
- Two independently updated display registers
- Programmable scale factors
- Programmable decimal point
- Displays both incremental and US Digital's absolute encoders
- Quadrature sensing (Up to 4 times resolution)
- Digital filtering of quadrature signals
- Can be configured by a Windows PC

Software

- www.usdigital.com/support/software/ed2
- www.usdigital.com/assets/USDProducts.zip (.zip file with installer)

Basic Operation

The **ED2** has a hardware counter chip which is capable of high speed counting, and can monitor both ports simultaneously. The **ED2** also has a microprocessor which can read the counter chip or communicate serially to absolute encoders to query them for their current positions. After the **ED2** has obtained a raw count, depending upon how the **ED2** was configured, it takes the raw count and multiplies it by a user configurable scale factor. The **ED2** has two display registers. This means that it can keep track of two encoders at once. The user toggles between these display registers to select which encoder channel is currently displayed on the LCD. If the u ser does not need or want more than one display, this can be disabled when the user configures the unit.

The count display is set to the preset value when the user presses the preset button. If an external reset signal is encountered the **ED2** will display its minimum value, not its preset value. The preset value is entered by the user during unit configuration.

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Programming

Programming the **ED2** is done through a PC running Windows 2000/XP. The windows **ED2** configuration program, ED2EasyConfig, is run on a PC which is connected to the SEI Port of the **ED2** through a US Digital AD2B or SEI-USB adapter.

Although the unit has been programmed at the factory, the parameters may be changed to meet the users specific requirements. To configure the **ED2**, connect a cord from the SEI adapter to the SEI Port of the **ED2**, and flip the selector switch on the back of the unit to SLAVE.

Then start the ED2EasyConfig program on the PC. ED2EasyConfig allows the user to configure the **ED2** using easy point and click menus. Configurations can be saved to disk on the PC, so that commonly used configurations can be quickly downloaded into the **ED2**.

This is a very flexible unit that allows the firmware to be downloaded in the field. For other personalities, functions, or controller operations, please contact technical support.

Operational Parameters

Parameter	Min.	Max.
Number of Incremental Encoders Tracked	0	2
Number of Absolute Encoders Tracked	0	2
Resolution of Absolute Encoder	2	32767
Number of Digits Displayed	0	8
Digits to Right of Decimal Point	0	6
User-programmable TTL Outputs	0	2

Included Accessories

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PS-12 Power supply

Configuration Software

SEI Explorer

Optional Accessories

AD2B

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