

Dual Encoder USB Converter

SSI and Quadrature Versions Available



The Dual Encoder to USB Converter translates encoder position to industry standard USB 2.0 format that can be read by a computer. Each module can handle signals from two encoders. Modules are available for SSI absolute encoders, as well as quadrature incremental encoders.

The module can be programmed through the USB interface for number of bits with absolute encoders. For incremental encoders, count mode (X1, X2, X4), reset, preset, and preset/reset on index are programmable through the USB input. Incremental encoder counter register length is programmable, up to 32 bits. The Encoder to USB Converter is ideal for system setup and debugging, data acquisition and PC based control applications. 3-meter USB cable included.

*Optional programmable data sample function allows module to automatically capture readings on an accurate time clock. See -S in Ordering Options below.

SPECIFICATIONS (Module)

Supply Voltage: 5 V ± 5% (powered by USB port)
Supply Current: 100 mA Max
Input Devices: 2 SSI Absolute or 2 Incremental Encoders
Output Format: USB 2.0

Note: Encoders powered separately by external supply.

Operating Temperature: 0° to 70° C

SPECIFICATIONS (Encoder)

SSI Absolute Encoder

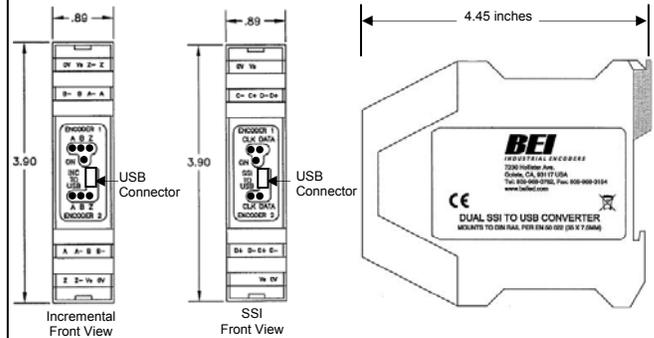
Input Format: Serial Synchronous Interface (SSI)
Clock/Data Signal Levels: Differential TTL (RS-422/485)
Clock Speed: 100 kHz
of bits: 8 to 32 (programmable)

Incremental Encoder

Input Format: A/B Quadrature with Index
Signal Levels: 5V, 12-15V, 24V (select in model number)
Signal Input Current: 10 mA nom.
Input Frequency Response: 1.0 MHz Max
of bits: 8 to 32 (programmable)

MECHANICAL SPECIFICATIONS

Package dimensions are 114.4 mm high by 99 mm wide by 22.5 mm thick. The package mounts to a DIN rail type EN 50 022 (35mm X 7.5mm). A length of DIN rail is supplied with each module. The module simply snaps directly to the DIN rail and is ready to use.



ENCODER USB CONVERTER ORDERING OPTIONS For assistance, call 800-350-2727(ASAP)

Use this diagram to construct your model number (example: EM-DR1-SS-S3-TB-USB).

EM

Type:
EM = Electronic Module, DIN Rail Mount

DR1

Package Style:
DR1 = 114.5 mm x 99 mm x 22.5 mm

Function:
SS = Serial-Serial (SSI to USB)
QS = Quadrature-Serial (Quadrature to USB)

TB

Output Termination:
TB = Standard Terminal Block

Output Voltage from Encoder:
S3 = SSI (used with SS function only)
5 = 5 VDC
15 = 12-15 VDC
24 = 24 VDC

USB

Output Interface Format:
USB = USB 2.0

Special Features:
S = Special Features specified on purchase order (consult factory)
*For data sample, add -S to model and specify this function on purchase order.