

Description

The **EADAPT** is an inline encoder signal converter which allows the user to invert or not-invert any of the A,B and Index encoder signals. This can be used to invert the encoder's rotation sense. The input quadrature signals can be single-ended or differential. Single-ended inputs can have amplitudes up to 30V. In addition, the index can be optionally gated by both the A/B channels going low to get an index pulse that is at most one quadrature state wide. This feature is useful when using encoders with a wide index pulse that spans multiple quadrature states.

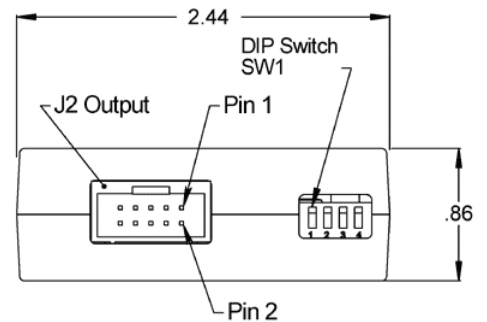
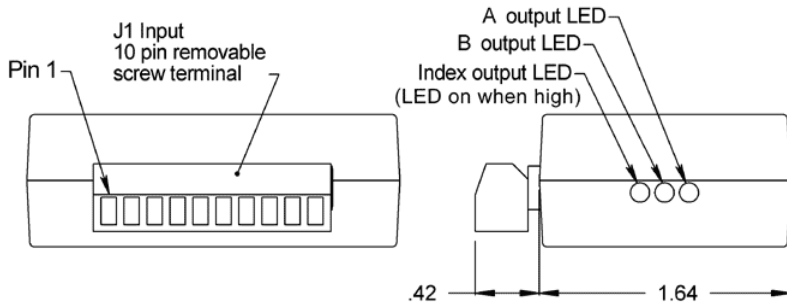
Encoder input signals enter through a 10-position pluggable screw terminal block. Single-ended encoders should be placed close (less than 2' preferably) to the **EADAPT** on the input side to limit noise. The **EADAPT** output is made through a 10-pin finger latching connector compatible with US Digital encoder interface products. The +5VDC supply voltage for the **EADAPT** is supplied from the J2 output connector. Three LEDs indicate when the associated A, B or Index outputs are high.



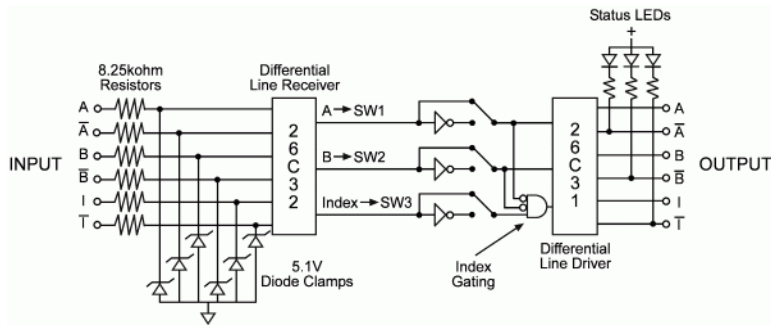
Features

- ▶ Single-ended or differential encoder inputs
- ▶ Encoder rotation sense reversal
- ▶ Index gating and polarity adjustments
- ▶ DIP switch programming
- ▶ Single 5V supply

Mechanical Drawing



Block Diagram



Operating Conditions

Parameter	Min.	Typ.	Max.	Units
Supply Voltage	4.75	5.0	5.25	V
Supply Current (no output load, LEDs off)		30		mA
Storage Temperature	-40		100	C
Operating Temperature	0		70	C
Humidity (non-condensing)	0		95	%

► For typical input voltage thresholds and output voltage levels, refer to the 26C31 and 26C32 IC datasheets.

DIP Switch Settings

Switch	Description
1	A channel polarity: switch down = non-invert switch up = invert
2	B channel polarity: switch down = non-invert switch up = invert
3	Index channel polarity: switch down = non-invert switch up = invert
4	no function

Pin-outs

J1 Input (Screw Terminal):

Pin	Description
1	+5V power (direct connection to J2 pins 7,8)
2	A+ channel
3	A- channel
4	B+ channel
5	B- channel
6	Index+
7	Index-
8	Ground
9	N/C
10	N/C

J2 Output (10-pin finger latching):

Pin	Description
1	Ground
2	Ground
3	Index-
4	Index+
5	A- channel
6	A+ channel
7	+5V power
8	+5V power
9	B- channel
10	B+ channel

Ordering Information

EADAPT -

Mounting

D =Default

R =DIN rail (35mm wide)

Notes

- Cables and connectors are not included and must be ordered separately.
- US Digital warrants its products against defects in materials and workmanship for two years. See complete warranty for details.