

Deva 012 encoder adaptor

The Deva 012 encoder adaptor comes in three variants. They are as follows.

- Deva 012-1-N-SD is a single ended to differential encoder adaptor with the Deva encoder pin layout on the input socket and output plug. It can be used inline to provide differential signals from a single ended encoder.
- Deva 012-1-N-HEDL is an adaptor for the encoder signals from a differential Hewlett Packard HEDL encoder to the Deva encoder pin layout.
- Deva 012-1-N-HEDS is an adaptor from a single ended Hewlett Packard HEDS encoder to the Deva differential encoder signal layout.

All of the adaptors makes direct power connection and are designed for pin to pin connection to a Deva001 encoder interface or Deva004 motion interface card. If an adaptor is not connected to the power from the interface card, it is possible to connect 5V and 0V on either side of the adaptor.

Deva 012-1-N-SD

The following table lists the input and output connection for the Deva012 single ended to differential encoder adaptor.

Encoder connection		Interface connection	
15 way HD socket	Signal	15 way HD plug	Signal
Pin 1	A	Pin 1	A
Pin 2	B	Pin 2	B
Pin 3	Z	Pin 3	Zero
Pin 4	M	Pin 4	Marker
Pin 5	P	Pin 5	Probe
Pin 6	(No connection)	Pin 6	nA
Pin 7	(No connection)	Pin 7	nB
Pin 8	(No connection)	Pin 8	nZero
Pin 9	(No connection)	Pin 9	nMarker
Pin 10	(No connection)	Pin 10	nProbe
Pin 11	+12V	Pin 11	+12V
Pin 12	+5V	Pin 12	+5V
Pin 13	0V	Pin 13	0V
Pin 14	-5V	Pin 14	-5V
Pin 15	-12V	Pin 15	-12V

The driver output for Zero and Probe is provided by a single line driver. The marker output has its own line driver.

The three inputs M, Z, or Probe can be routed to either the line driver for Zero/Probe signal or the line driver for the Marker signal by changing internal wire links.

As supplied the M input drives the Marker output and the P input drives the Zero/Probe output.

Deva012-1-N-HEDL

The following table lists the input and output connection for the Deva012 HEDL encoder adaptor.

Encoder connection	
10 way IDC Header plug	Signal
Pin 1	(No connection)
Pin 2	+5V
Pin 3	Gnd
Pin 4	(No connection)
Pin 5	nChA
Pin 6	ChA
Pin 7	nChB
Pin 8	ChB
Pin 9	nChI
Pin 10	ChI

Interface connection	
15 way half density plug	Signal
Pin 1	A
Pin 2	B
Pin 3	Z
Pin 4	M
Pin 5	Probe
Pin 6	nA
Pin 7	nB
Pin 8	nZ
Pin 9	nM
Pin 10	nProbe
Pin 11	(No connection)
Pin 12	+5V
Pin 13	0V
Pin 14	(No connection)
Pin 15	(No connection)

The Deva012 HEDL adaptor is a passive direct connector with the option to connect CHI to Z, M and Probe. Connection of the ChI to M and nChI and nM is made by default.

Deva012-1-N-HEDS

The following table lists the input and output connection for the Deva012 HEDS single ended to differential encoder adaptor.

Encoder connection	
10way IDC header	Signal
Pin 1	ChA
Pin 2	+5V
Pin 3	Gnd1
Pin 4	
Pin 5	
Pin 6	Gnd2
Pin 7	+5V
Pin 8	ChB
Pin 9	+5V
Pin 10	ChI

Interface connection	
15 way HD plug	Signal
Pin 1	A
Pin 2	B
Pin 3	Z
Pin 4	M
Pin 5	Prb
Pin 6	nA
Pin 7	nB
Pin 8	nZ
Pin 9	nM
Pin 10	nPrb
Pin 11	(No connection)
Pin 12	+5V
Pin 13	0V
Pin 14	(No connection)
Pin 15	(No connection)

The Index signal from CHI can be optionally connected to provide an index signal onto the line driver for Marker or Zero and Probe. The outputs Zero and Probe are connected together and the marker output has its own driver signal. By default the ChI connection drives the M and nM signals via the differential buffer.