

new

Encoder Line Driver Options

Technical Data

HEDL-9000/9100/9200
HEDL-9040/9140
HEDL-550X/554X
HEDL-560X/564X

Features

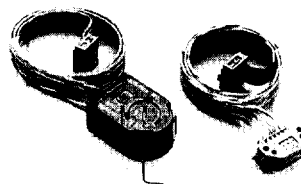
- Available on Both Encoder Modules (HEDS-9000 Series) and Encoder Kit Housings (HEDS-5500 Series)
- Complementary Outputs
- High Flex Twisted Pair Cable with Connector
- Industry Standard 26LS31 Line Driver IC
- Single 5 V Supply
- Onboard Bypass Capacitor

Description

Line Driver options are available on the HEDS-55XX/56XX series and the HEDS-9000/9100/9200/9040/9140 series encoders. The line driver

option offers enhanced performance when the encoder is used in noisy environments, or when it is required to drive long distances.

This option utilizes an industry standard line driver IC (26LS31) which provides complementary outputs for each encoder channel. Thus, the output of the line driver encoder is A, \bar{A} , B, \bar{B} and I, \bar{I} for three channel versions. In addition, this option comes standard with a 10 conductor flat ribbon cable with complementary outputs in twisted pairs – providing increased noise immunity. Suggested line receivers are 26LS32 and 26LS33.



For additional information, please refer to: HEDS-5500/5540/5600/5640 data sheet, HEDS-90X0/91X0/92X0 data sheets, HEDS-9000 series extended resolution data sheet, and 26LS31 data sheet.

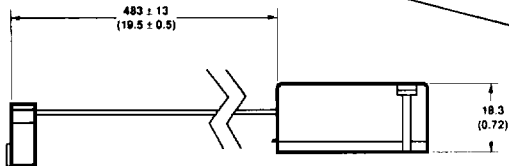
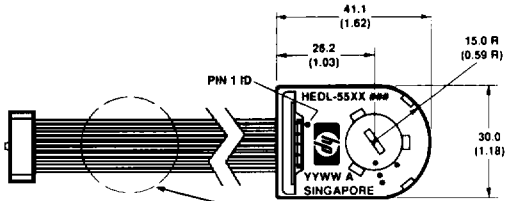
Device Characteristics

Option	Characteristic	Notes
Termination	10 conductor twisted pair cable with 10 position IDC Berg connector	See pinout
Electrical Outputs	Complementary outputs: A, \bar{A} , B, \bar{B} , I, \bar{I}	I and \bar{I} available only on three channel encoders
Line Driver Components	26LS31 line driver IC, decoupling capacitor on PC board.	
Operating Temperature Range	0° C to 70° C	100° C available. Contact factory
Storage Temperature	-40° C to 70° C	

ESD WARNING: NORMAL HANDLING PRECAUTIONS SHOULD BE TAKEN TO AVOID STATIC DISCHARGE.

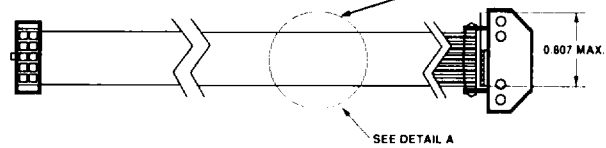
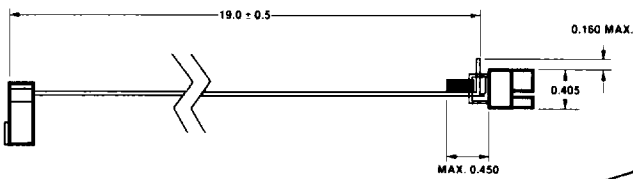
Line Driver Package Dimensions

For Detailed Dimensions on encoder packages, please refer to the respective data sheets.

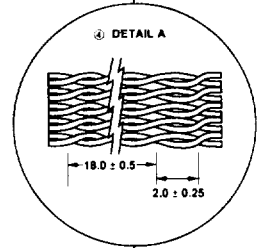


NOTE: DIMENSIONS IN MILLIMETERS (INCHES)

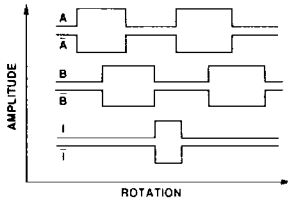
HEDL-550X/554X/560X/564X



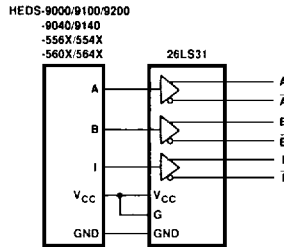
HEDL-9000/9100/9200/9040/9140



Waveforms

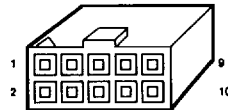


Block Diagram



Pinouts

10-PIN CONNECTOR		
NO.	COLOR	PARAMETER
1	BROWN	NC
2	RED	V _{CC} (+5 V)
3	ORANGE	GND
4	YELLOW	NC
5	GREEN	Ā
6	BLUE	A
7	VIOLET	B̄
8	GREY	B
9	WHITE	Ī (INDEX)
10	BLACK	I (INDEX)



10 POSITION IDC CONNECTOR
CENTER POLARIZED.

Note: Ī only available on the HEDL/554X/564X/904X/914X three channel encoders.

Line Driver Base Parts Available:

Line Driver Base Part	Description	Refer to the following encoder data sheet for additional information and option codes (XXX = resolution and/or shaft size).
HEDL-5500#XXX	HEDS-5500#XXX with Line Driver/Cable/Connector	HEDS-5500/5540 HEDS-5600/5640
HEDL-5505#XXX	HEDS-5505#XXX with Line Driver/Cable/Connector	
HEDL-5540#XXX	HEDS-5540#XXX with Line Driver/Cable/Connector	
HEDL-5545#XXX	HEDS-5545#XXX with Line Driver/Cable/Connector	
HEDL-5600#XXX	HEDS-5600#XXX with Line Driver/Cable/Connector	
HEDL-5605#XXX	HEDS-5605#XXX with Line Driver/Cable/Connector	
HEDL-5640#XXX	HEDS-5640#XXX with Line Driver/Cable/Connector	
HEDL-5645#XXX	HEDS-5645#XXX with Line Driver/Cable/Connector	
HEDL-9000#XXX	HEDS-9000#XXX with Line Driver/Cable/Connector	HEDS-9000/9100/9200 HEDS-9040/9140 HEDS-9000/9100/9200 Extended Resolution
HEDL-9040#XXX	HEDS-9040#XXX with Line Driver/Cable/Connector	
HEDL-9100#XXX	HEDS-9100#XXX with Line Driver/Cable/Connector	
HEDL-9140#XXX	HEDS-9140#XXX with Line Driver/Cable/Connector	
HEDL-9200#XXX	HEDS-9200#XXX with Line Driver/Cable/Connector	

Ordering Information:

To identify the line driver option when ordering an encoder, simply use the "HEDL" base (instead of "HEDS").