Encoder Line Drivers

Technical Data

HEDL-550x/554x
HEDL-560x/564x
HEDL-9000/9100
HEDL-9040/9140

Features

- **Available on Both Encoder Modules (HEDS-9000 Series) and Encoder Kit Housing (HEDS-5500 Series)**
- **Complementary Outputs**
- **Industry Standard Line Driver IC**
- **Single 5 V Supply**
- **Onboard Bypass Capacitor**

Description

Line Drivers are available for the HEDS-55xx/56xx series and the HEDS-9000/9100/9200/9040/9140 series encoders. The line driver offers enhanced performance when the encoder is used in noisy environments, or when it is required to drive long distances.

The encoder line driver utilizes an industry standard line driver IC, 26C31, which provides complementary outputs for each encoder channel. Thus, the output of the line driver encoder is A, $\overline{A}$, B, $\overline{B}$ and I/$\overline{I}$ for three channel versions. 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
26C31 data sheet.

Note: Agilent Technologies encoders are not recommended for use in safety critical applications. Eg. ABS braking systems, power steering, life support systems and critical care medical equipment. Please contact sales representative if more clarification is needed.
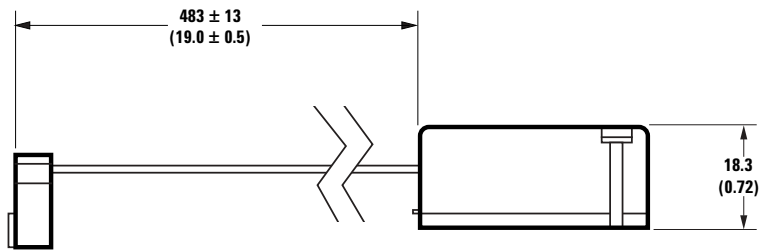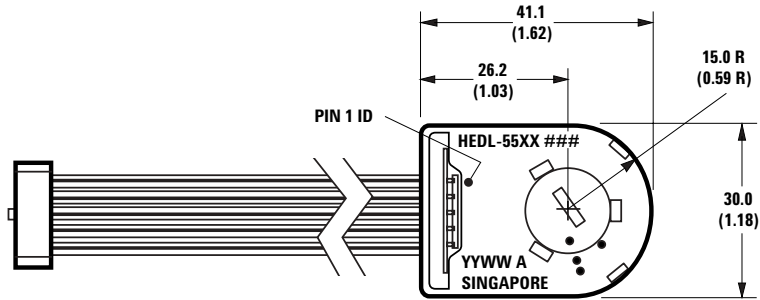
Device Characteristics

Parameter	Characteristic	Notes
Termination	10 conductor ribbon cable with10 position IDC Berg connector	See pinout
Electrical Outputs	Complementary outputs: $\overline{A}$, A, B, $\overline{B}$, I, $\overline{I}$	I and $\overline{I}$ available only on three channel encoders
Line Driver Components	26C31 line driver IC, decoupling capacitor on PC board.	
Operating Temperature Range	0°C to 100° C	100° C Series
Storage Temperature	-40°C to 100° C	100° C Series

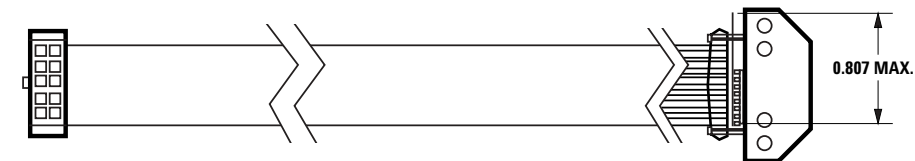*ESD WARNING: NORMAL HANDLING PRECAUTIONS SHOULD BE TAKEN TO AVOID STATIC DISCHARGE.*
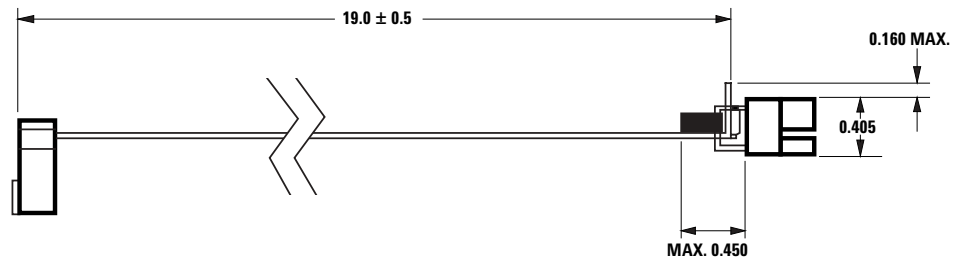
Line Driver Package Dimensions

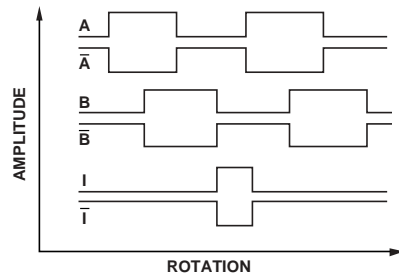For Detailed Dimensions on encoder packages, please refer to the respective data sheets.

**41.1
(1.62)**

**26.2
(1.03)**

**15.0 R
(0.59 R)**

PIN 1 ID

HEDL-55XX ###

**30.0
(1.18)**

**YYWW A
SINGAPORE**

**483 ± 13
(19.0 ± 0.5)**

**18.3
(0.72)**

HEDL-550X/554X/560X/564X/556X

NOTE: DIMENSIONS IN MILLIMETERS (INCHES)

19.0 ± 0.5

0.160 MAX.

0.405

MAX. 0.450

0.807 MAX.

HEDL-9000/9100/9200/9040/9140

Waveforms

ROTATION

Block Diagram

HEDS-9000/9100/9200
-9040/9140
-556X/554X
-560X/564X

26C31
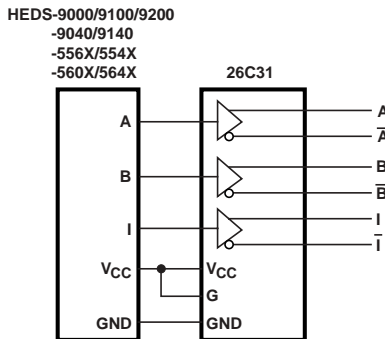
Pinouts

10-PIN CONNECTOR

NO.	COLOR	PARAMETER
1	BROWN	NC
2	RED	V_{CC} (+ 5 V)
3	ORANGE	GND
4	YELLOW	NC
5	GREEN	A
6	BLUE	$\overline{A}$
7	VIOLET	B
8	GREY	$\overline{B}$
9	WHITE	I (INDEX)
10	BLACK	$\overline{I}$ (INDEX)
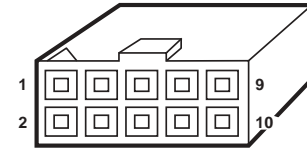
**10 POSITION IDC CONNECTOR
CENTER POLARIZED.**

Note: $\overline{I}$/I only available on three channel encoders.

Line Driver Base Parts Available:

100°C Line Driver Base Part	Channels	Refer to the following encoder data sheet for additional information and option codes (XXX = resolution and/or shaft size)
HEDL-5500#XXX	A, B	HEDS-5500#XXX
HEDL-5505#XXX	A, B	HEDS-5505#XXX
HEDL-5540#XXX	A, B, I	HEDS-5540#XXX
HEDL-5600#XXX	A, B	HEDS-5600#XXX
HEDL-5605#XXX	A, B	HEDS-5605#XXX
HEDL-5640#XXX	A, B, I	HEDS-5640#XXX
HEDL-5645#XXX	A, B, I	HEDS-5645#XXX
HEDL-9000#XXX	A, B	HEDS-9000#XXX
HEDL-9040#XXX	A, B, I	HEDS-9040#XXX
HEDL-9100#XXX	A, B	HEDS-9100#XXX
HEDL-9140#XXX	A, B, I	HEDS-9140#XXX

Ordering Information:

For option code selection, refer to the data sheet for the corresponding "HEDS" part number (see right column).

		01	02	04	05	06	11	12	13	14
HEDL-5500#	A		*			*				
	E					*				
	G				*			*		
	H					*				
	I			*						
HEDL-5505#	A					*				
	I								*	
HEDL-5540#	A	*	*		*	*	*	*	*	*
	C		*		*			*		
	E					*	*			
	G						*			
	I	*				*	*		*	
HEDL-5560#	B		*				*		*	
HEDL-5561#	J					*				
HEDL-5600#	A					*				
	H					*				
HEDL-5605#	A					*				
	C									*
HEDL-5640#	A					*		*	*	
HEDL-5645#	A					*			*	
	G					*				

HEDL-9000#	U00
HEDL-9040#	B00
HEDL-9100#	A00
HEDL-9140#	A00 100

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Encoders *category:*

Click to view products by Broadcom *manufacturer:*

Other Similar products are found below :

6-1393048-5 62AG22-H5-P 62B22-LP-030C 62D22-02-P 62R22-01-040S 63K25 63K32 63KS100 63KS64 63R100 63R50-020 63RS256-060 700-09-36 E6C2-CWZ6C-10 500P/R 5M E6C3-CWZ5GH 1000P/R 2M 25LB22-G-Z T101-5C2-111-M1 T101-5C3-111-M1 T101-5C4-111-M1 25LB45-Q-Z HEDS-8905 385001M0439 385001M0216 DPL12SV2424A25K3 E69-1 E69-DF15 E69-FBA-02 E69-FCA E6B2-CWZ1X 2000P/R 0.5M E6B2-CWZ3E 600P/R 0.5M E6C3-CWZ3EH 800P/R 2M ENA1D-472-L00050L 61S64-2 62B11-LP-100S 62B11-LPP-P 62C1111-02-020C 62N11-P 62S22-H9-120S 62S30-L0-200C 62V15-02-080S 62V22-02-030C 632911-128 63K64 63KS100-040 63R64-050 63RS256 63RS64 700-16-16 3-1393048-1 63KS128