HEDL-556x
Encoder Line Drivers

Data Sheet

Description

Line Drivers are available for the HEDM-5500 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 HEDL-556x series utilizes an industry standard line driver IC, AM26C31Q, which provides complementary outputs for each encoder channel. Thus, the output of the line driver encoder is A, $\overline{A}$, B, $\overline{B}$. Suggested line receivers are 26LS32 and 26LS33.

For additional information, please refer to:

HEDM-55xx/56xx datasheet.

Features

- Available on Encoder Kit Housing (HEDM-5500 Series)
- Complementary Outputs
- Industry Standard Line Driver IC
- Single 5 V Supply
- Onboard Bypass Capacitor
- Operating Temperature up to 70°C

Note: Avago 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.
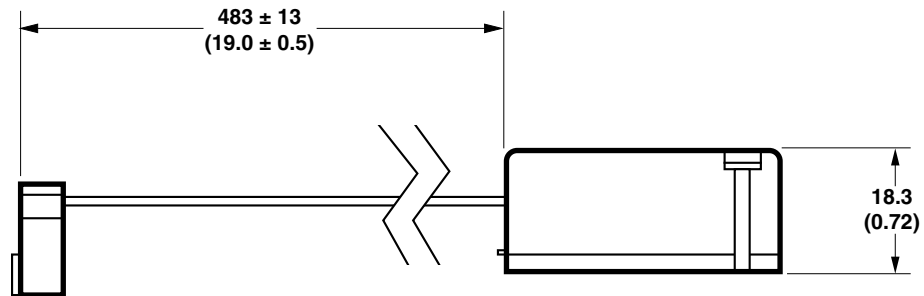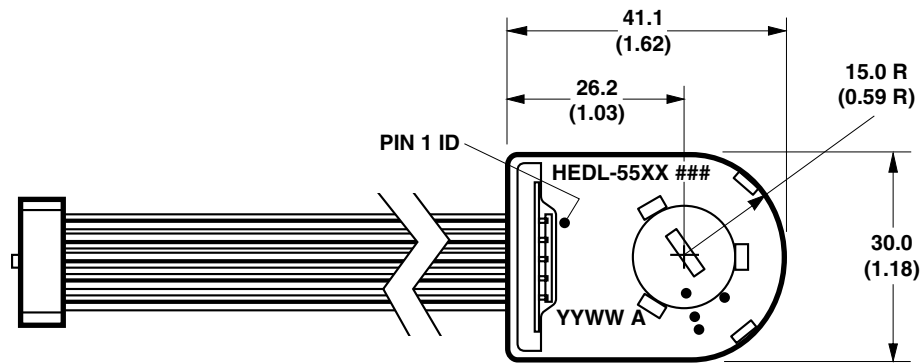
Device Characteristics

Parameter	Characteristic	Notes
Termination	10 conductor ribbon cable with 10 position IDC connector	See pinout
Electrical Outputs	Complementary outputs: A, $\overline{A}$, B, $\overline{B}$, I, $\overline{I}$	I and $\overline{I}$ available only on three channel encoders
Line Driver Components	AM26C31Q line driver IC, decoupling capacitor on PC board.	
Operating Temperature	-40°C to 70°C	
Storage Temperature	-40°C to 70°C	

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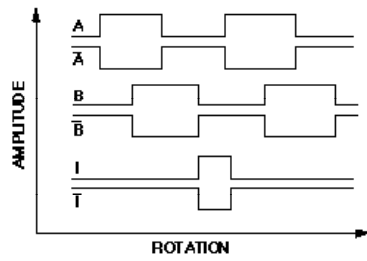
Line Driver Package Dimensions

For detailed dimensions on encoder packages, please refer to the HEDM-55xx/56xx data sheet.

41.1
(1.62)

26.2
(1.03)

15.0 R
(0.59 R)

PIN 1 ID

HEDL-55XX ###

YYWW A

30.0
(1.18)

483 ± 13
(19.0 ± 0.5)

18.3
(0.72)

HEDL-556X

NOTE: DIMENSIONS IN MILLIMETERS (INCHES)

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Waveforms

Block Diagram

HEDM-5500/5505   AM26C31Q

Pinouts

10-PIN CONNECTOR

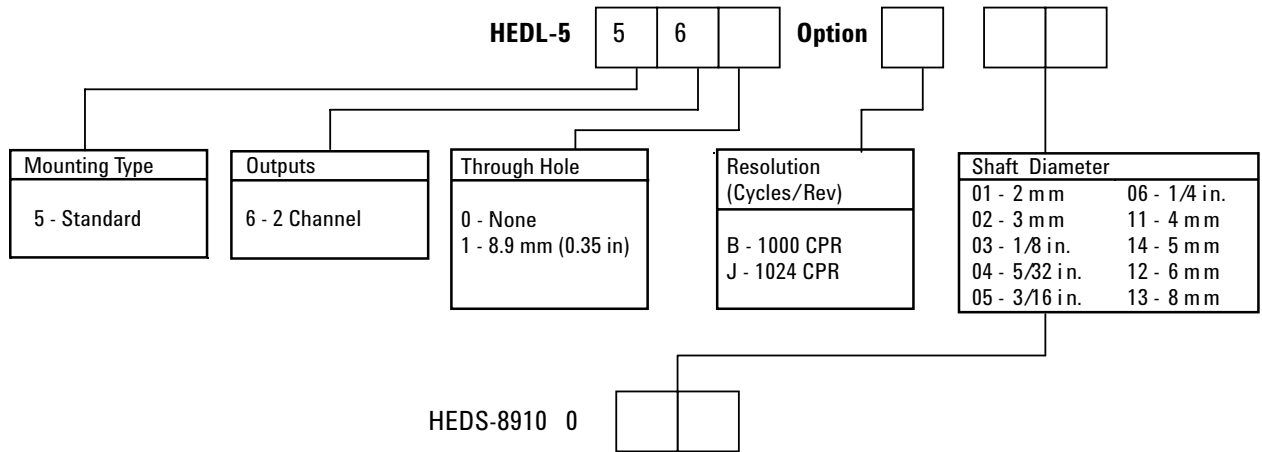| NO.	COLOR	PARAMETER
1	BROWN	NC
2	RED	V_{CC} (+ 5 V)
3	ORANGE	GND
4	YELLOW	NC
5	GREEN	$\overline{A}$
6	BLUE	A
7	VIOLET	$\overline{B}$
8	GREY	B
9	WHITE	$\overline{I}$ (INDEX)
10	BLACK	I (INDEX)
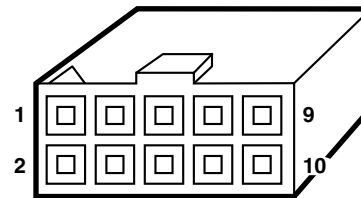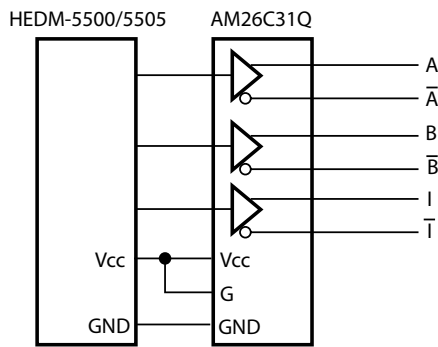
**10 POSITION IDC CONNECTOR
CENTER POLARIZED.**

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

Line Driver Base Parts Available:

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-5560#XXX	A, B	HEDM-5500#XXX
HEDL-5561#XXX	A, B	HEDM-5505#XXX

Ordering Information

HEDL-5 [5] [6] [ ] **Option** [ ] [ ][ ]

Mounting Type
5 - Standard

Outputs
6 - 2 Channel

Through Hole
0 - None
1 - 8.9 mm (0.35 in)

Resolution (Cycles/Rev)
B - 1000 CPR
J - 1024 CPR

Shaft Diameter
01 - 2 mm   06 - 1/4 in.
02 - 3 mm   11 - 4 mm
03 - 1/8 in.   14 - 5 mm
04 - 5/32 in. 12 - 6 mm
05 - 3/16 in. 13 - 8 mm

HEDS-8910 0 [ ][ ]

(Included with each order of HEDL-556x two channel encoders)

		01	02	04	05	06	11	12	13	14
HEDL-5560#	B		*				*		*	*
HEDL-5561#	J					*				

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T E C H N O L O G I E S

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