



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



PART NUMBER: LME

DESCRIPTION: modular incremental encoder

The LME Series are high performance, low cost, 3 channel optical incremental encoders. Each encoder contains a LED source, an integrated circuit with detectors and circuitry, and an optical disc which rotates between the emitter and detector IC. These encoders can be quickly and easily mounted to a motor.



ELECTRICAL SPECIFICATIONS

output waveform	Square wave
output signals	A, B, Z phase
current consumption	≤ 60 mA
output phase difference	90° ± 45°
supply voltage	5 V dc
output resolution (ppr)	1000, 1024, 2000, 2048 (other resolutions available upon request)
frequency response	0~100 KHz
output current	0~5 mA

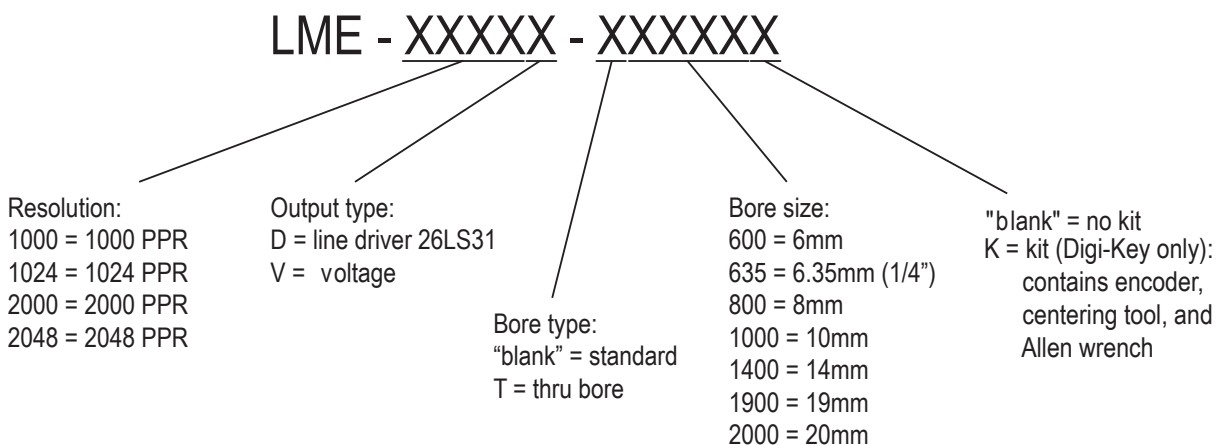
MECHANICAL SPECIFICATIONS

rotor inertia of code-wheel	6.0x10 ⁻⁸ kgm ²
shock resistance	980 m/s ² ,6ms, 2 times each on XYZ
vibration proof	50 m/s ² ,10~200 Hz, 2 hours each on XYZ
working life	MTBF ≥ 5000h(+25°C, 2000rpm)
weight	25g (with 0.5 meter cable)

ENVIRONMENTAL SPECIFICATIONS

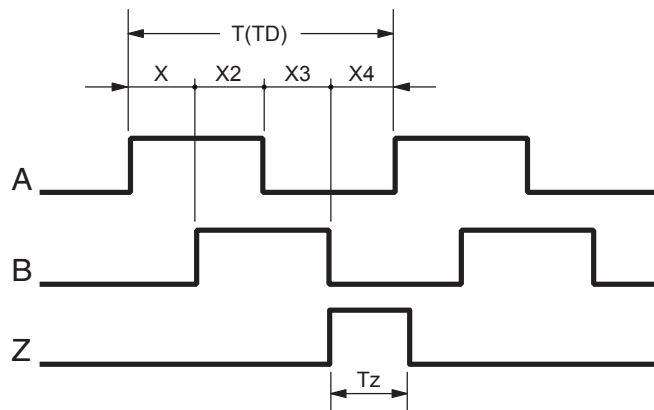
operating temp	-25° to +85° C
storage temp	-40° to +85° C
humidity	30~85% no condensation
protection	IP50

ORDERING INSTRUCTIONS



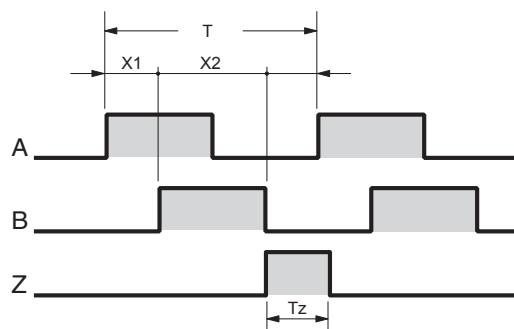
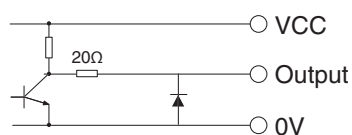
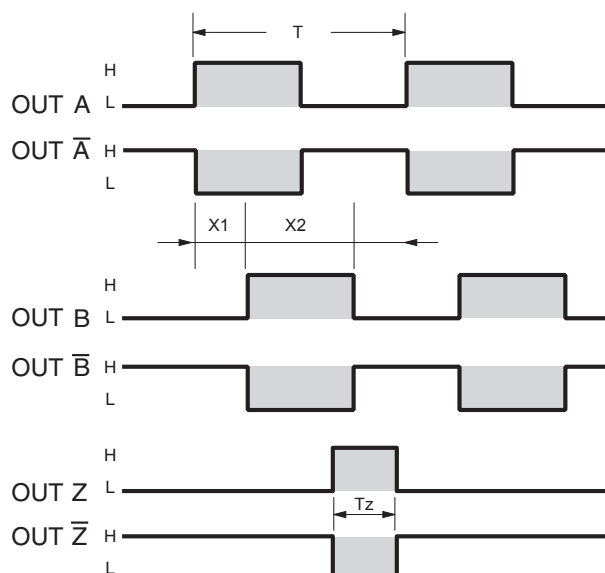
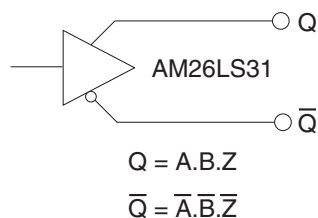
PART NUMBER: LME

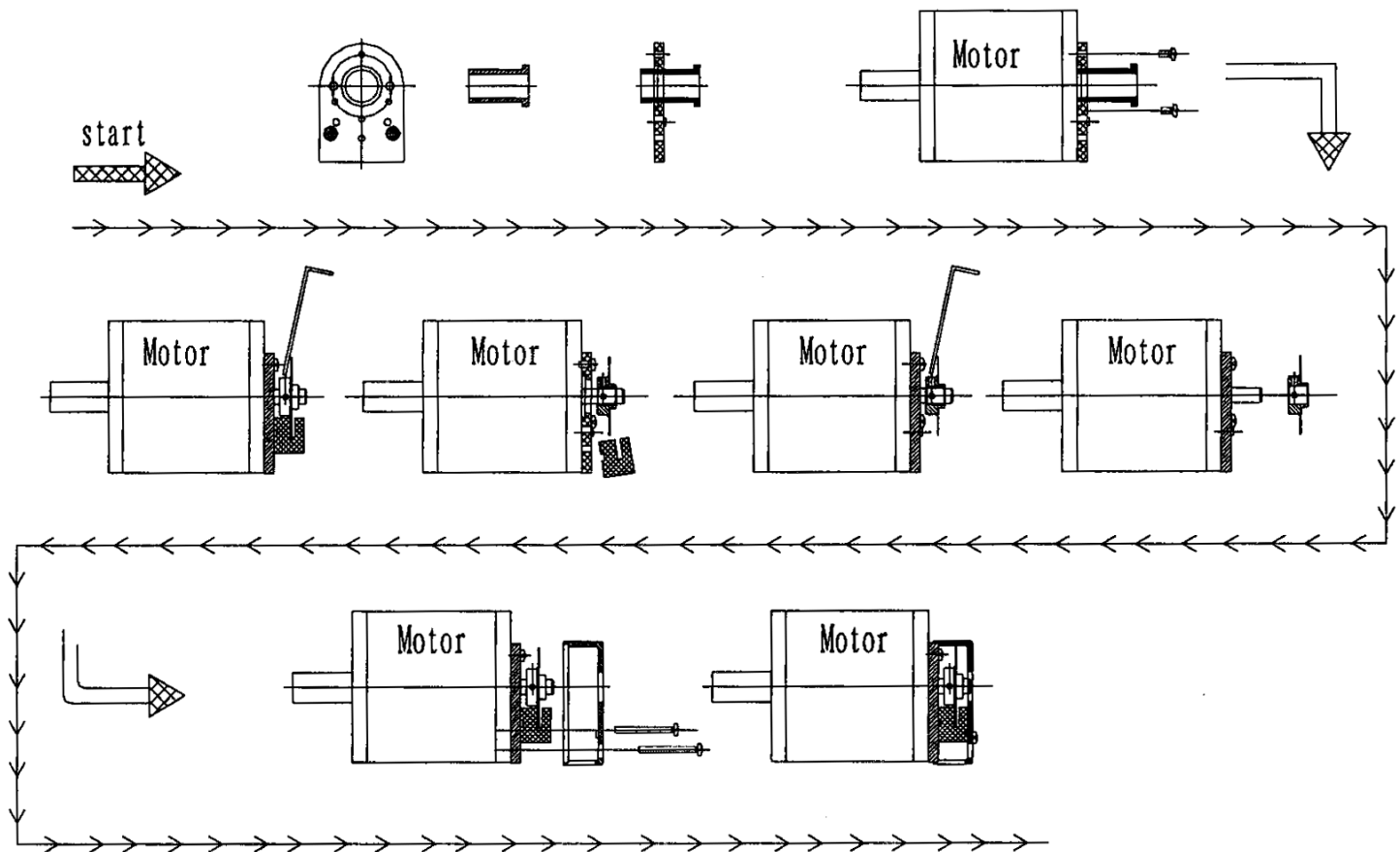
DESCRIPTION: modular incremental encoder

OUTPUT WAVEFORM


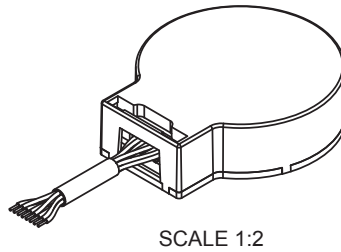
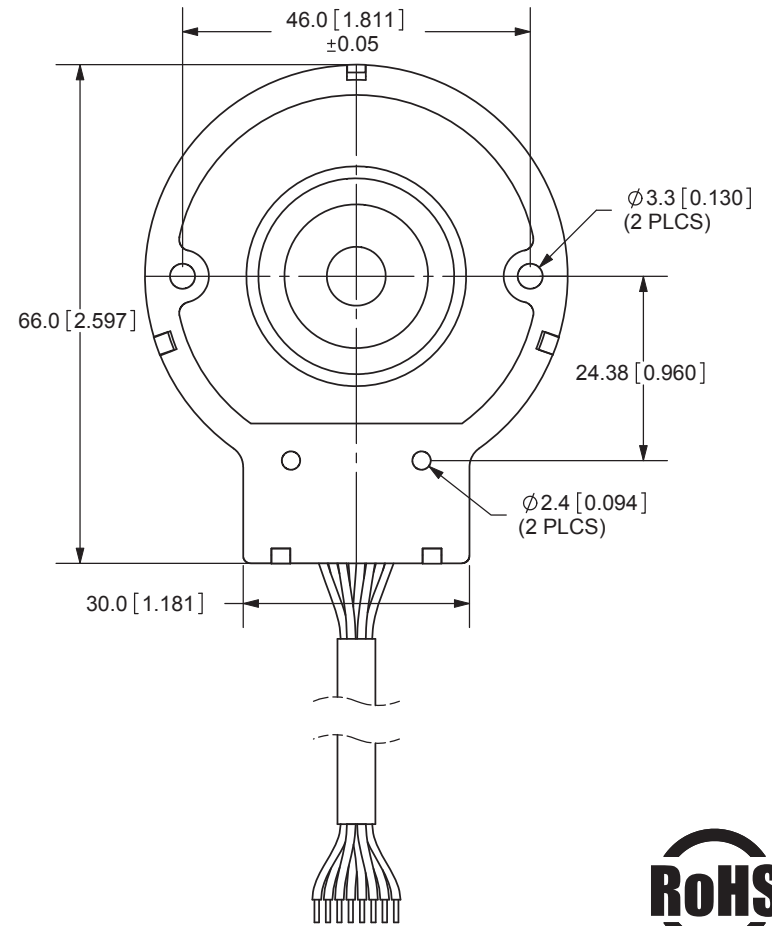
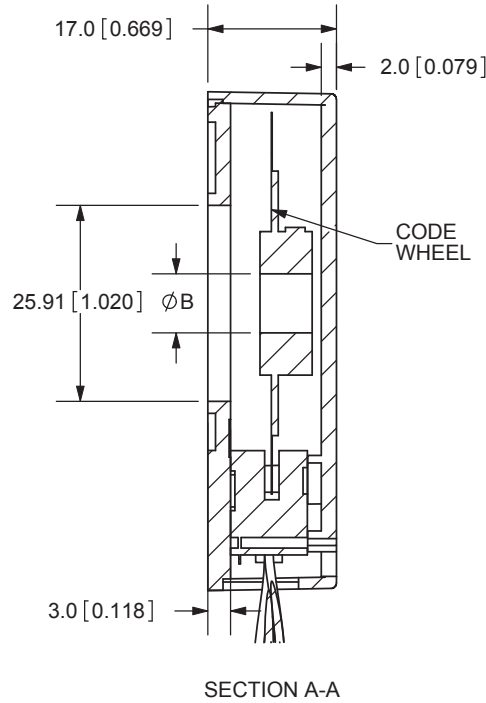
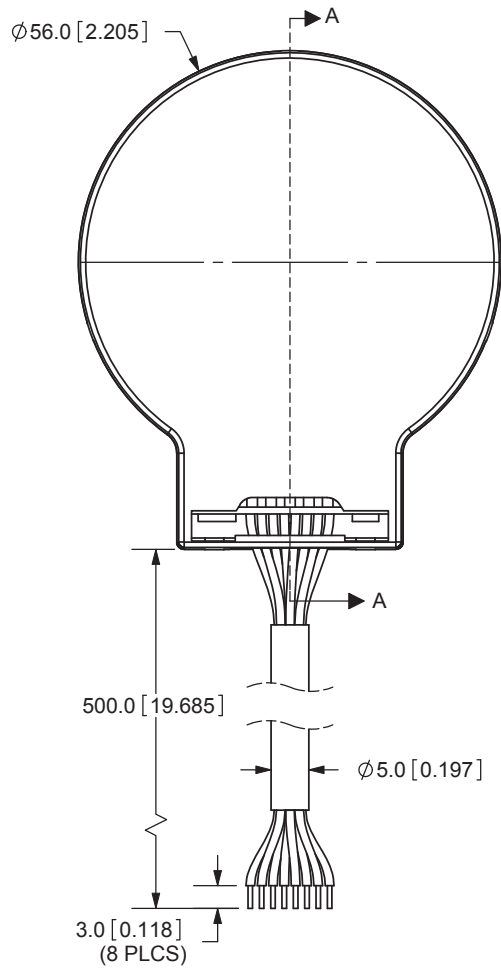
- Square-wave accuracy: $X_1 + X_2 = 1/2T \pm 1/12T$
 $X_3 + X_4 = 1/2T \pm 1/12T$
- Pitch error of period: $\pm 0.01T$
- Pitch error of phase position: $\leq 1/18T$
- Z phase: $T_z = 1/4T$ (1T, 1/2T, 1/4T...)
- Period of pulses: $T = 360^\circ / N$ (N: output pulses)
- Signal accuracy: $X_n = 1/4T \pm 1/12T$ (n=1, 2, 3, 4)

A leads B clockwise when viewing the encoder shaft end.
 The position of Z phase against A, B phase is not specified.

Voltage output

Line driver output


PART NUMBER: LME**DESCRIPTION:** modular incremental encoder**INSTALLATION DRAWING**

REV.	DESCRIPTION	DATE
A	NEW DRAWING	4/15/2008



ØB (bore size)	tolerance
6mm	-0.00 +0.033
6.35mm	
8mm	
10mm	
14mm	
19mm	
20mm	

TOLERANCE:
±0.3mm UNLESS OTHERWISE SPECIFIED

Cable Code	1	2	3	4	5	6	7	8
Cable Color	Black	Red	Green	Brown	White	Grey	Yellow	Orange
Line Driver Output	0V	Vcc	A	\bar{A}	B	\bar{B}	Z	\bar{Z}
Cable Code	1	2	3	4	5	-	-	-
Cable Color	Black	Yellow	Green	Red	White	-	-	-
Voltage Output	0V	Z	A	Vcc	B	-	-	-

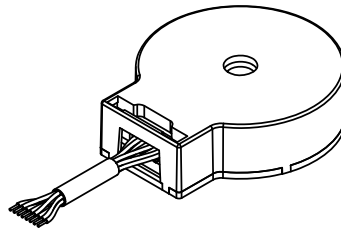
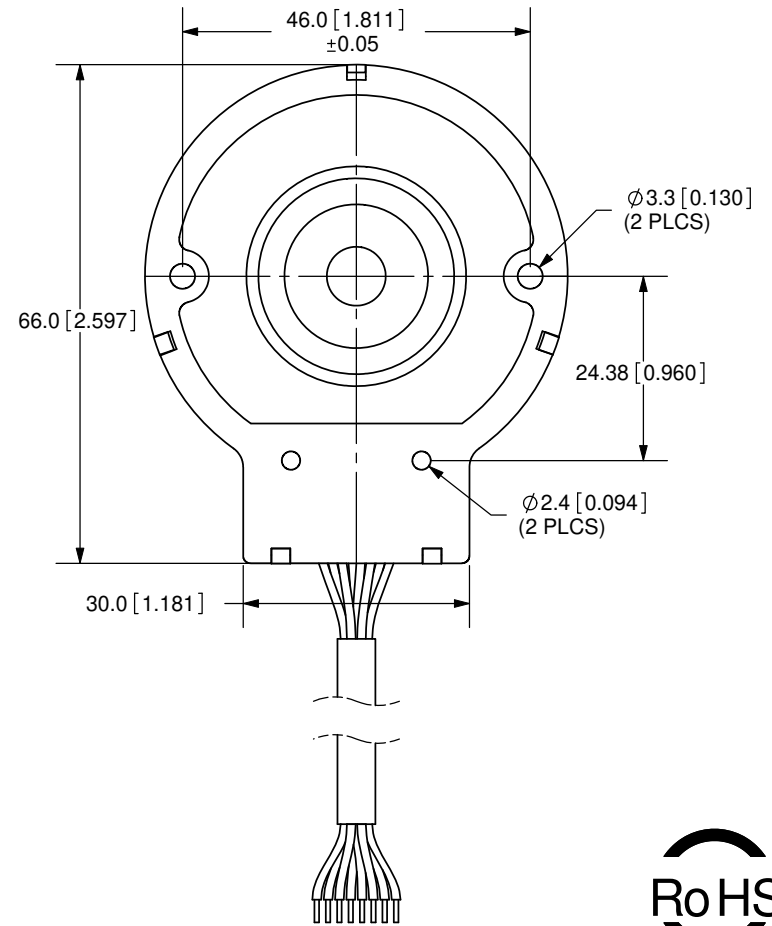
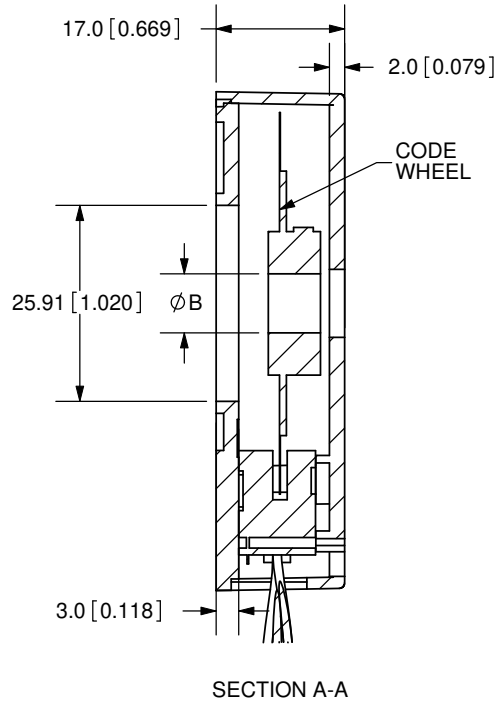
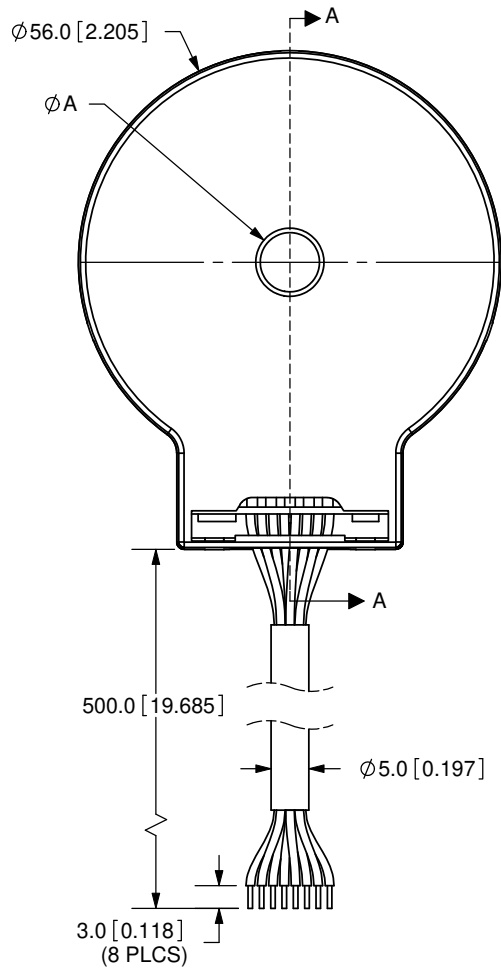


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Website: www.cui.com

TITLE:	LME - MODULAR OPTICAL ENCODER	REV:	A
PART NO.	LME - STANDARD BORE	UNITS:	MM [INCHES]
DRAWN BY:	ZRJ	APPROVED BY:	
		SCALE:	1:1

THRU HOLE VERSION

REV.	DESCRIPTION	DATE
A	NEW DRAWING	4/15/2008



ØA (case opening)	ØB (bore size)	tolerance
10mm	6mm	-0.00 +0.033
	6.35mm	
	8mm	
11mm	10mm	
15mm	14mm	
20mm	19mm	
21mm	20mm	

TOLERANCE:
±0.3mm UNLESS OTHERWISE
SPECIFIED

Cable Code	1	2	3	4	5	6	7	8
Cable Color	Black	Red	Green	Brown	White	Grey	Yellow	Orange
Line Driver Output	0V	Vcc	A	\bar{A}	B	\bar{B}	Z	\bar{Z}
Cable Code	1	2	3	4	5	-	-	-
Cable Color	Black	Yellow	Green	Red	White	-	-	-
Voltage Output	0V	Z	A	Vcc	B	-	-	-



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TITLE:	LME - MODULAR OPTICAL ENCODER	REV:	A
PART NO.	LME-THROUGH BORE	UNITS:	MM [INCHES]
DRAWN BY:	ZRJ	APPROVED BY:	
		SCALE:	1:1