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!

Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832
Email & Skype: info@chipsmall.com Web: www.chipsmall.com
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

PART NUMBER: AME **DESCRIPTION:** modular incremental encoder

The AME Series are high performance, low cost, 2 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.

RoHS

ELECTRICAL SPECIFICATIONS

output waveform		Square wave
output signals		A, B phase
output voltage	H:	≥ 85% Vcc
	L:	≤ 0.3 V
current consumption		≤ 25 mA
output phase difference		90° ± 45°
supply voltage		5 V dc
output resolution (ppr)		100, 200, 256, 360, 400, 500, 512, 1000, 1024
frequency response		20 kHz (voltage output), 50kHz (line driver output)
output current		0~5 mA

MECHANICAL SPECIFICATIONS

rotor inertia of code-wheel	$6.0x10^{-8}$ kgm^2
hollow shaft diameter	≤ Ø 8mm
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	10g (with 0.5 meter cable)

ENVIRONMENTAL SPECIFICATIONS

operating temp	-25° to +85° C
storage temp	-40° to +100° C
humidity	30~85% no condensation
protection	IP50

ORDERING INSTRUCTIONS

AME - XXXXX - XXXXX

Resolution:
100 = 100 PPR
200 = 200 PPR
256 = 256 PPR
360 = 360 PPR
400 = 400 PPR
500 = 500 PPR
1000 = 1000 PPR
1024 = 1024 PPR

Output type:
D = line driver 26LS31
V = voltage

Bore type:
"blank" = standard
T = thru bore*

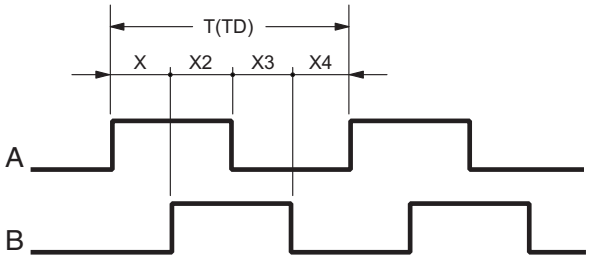
Bore size:
300 = 3mm
400 = 4mm
500 = 5mm
600 = 6mm
635 = 6.35mm (1/4")
800 = 8mm

"blank" = no kit
K = kit (Digi-Key only): contains encoder, centering tool, and Allen wrench

*Removing the cap which covers the bore will turn the Standard style into a Thru Bore style

PART NUMBER: AME **DESCRIPTION:** modular incremental encoder

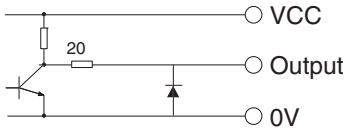
OUTPUT WAVEFORM

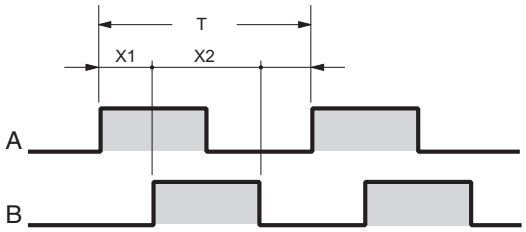


•Square-ware accuracy:	$X_1 + X_2$ = 1/2T ± 1/12T
	$X_3 + X_4$ = 1/2T ± 1/12T
•Pitch error of period:	±0.01T
•Pitch error of phase position:	≤ 1/18T
•Z phase:	Tz=1/4T (1T, 1/2T, 1/4T...)
•Period of pulses:	T=360° /N (N: output pulses)
•Signal accuracy:	Xn=1/4T ± 1/12T (n=1, 2, 3, 4)

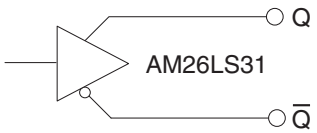
A leads B clockwise when viewing the encoder shaft end.
The position of Z phase against A, B phase is not specified.

Voltage output



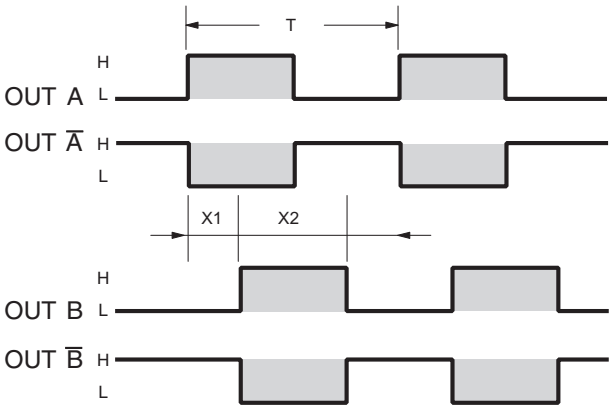


Line driver output



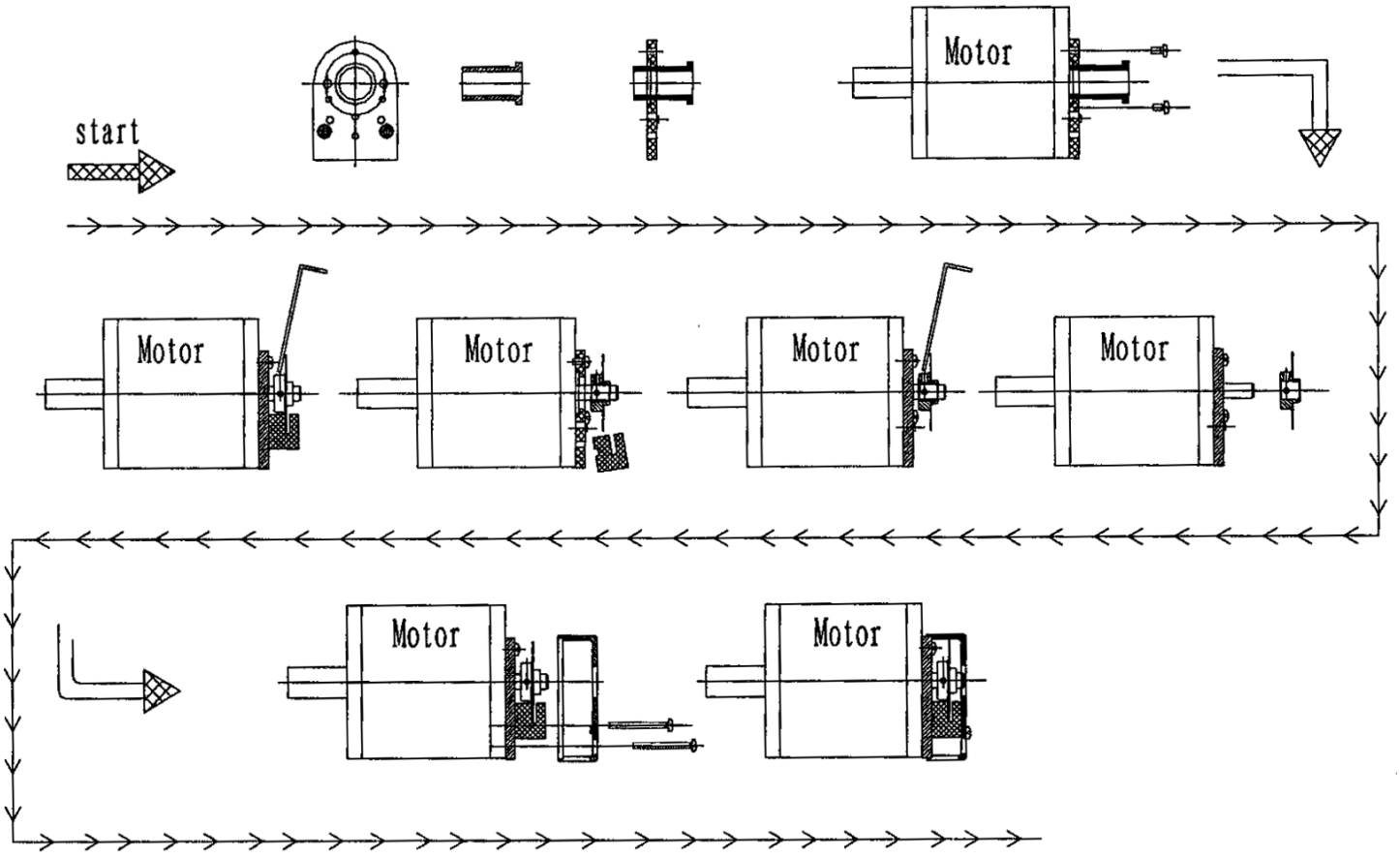
$Q = A.B$

$\overline{Q} = \overline{A}.\overline{B}$

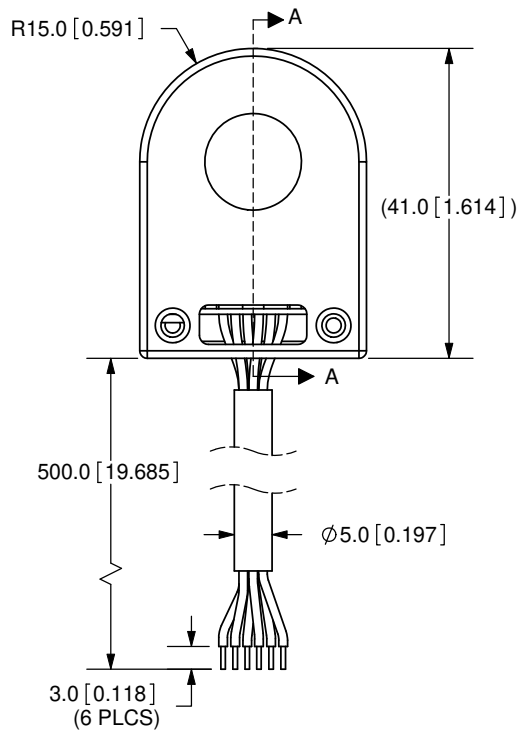


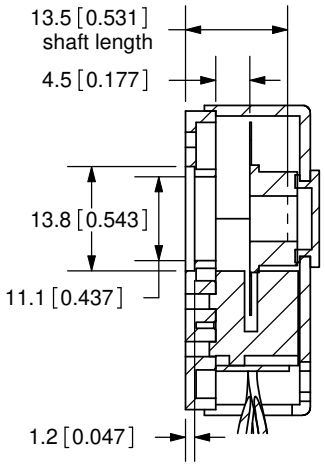
PART NUMBER: AME **DESCRIPTION:** modular incremental encoder

INSTALLATION DRAWING

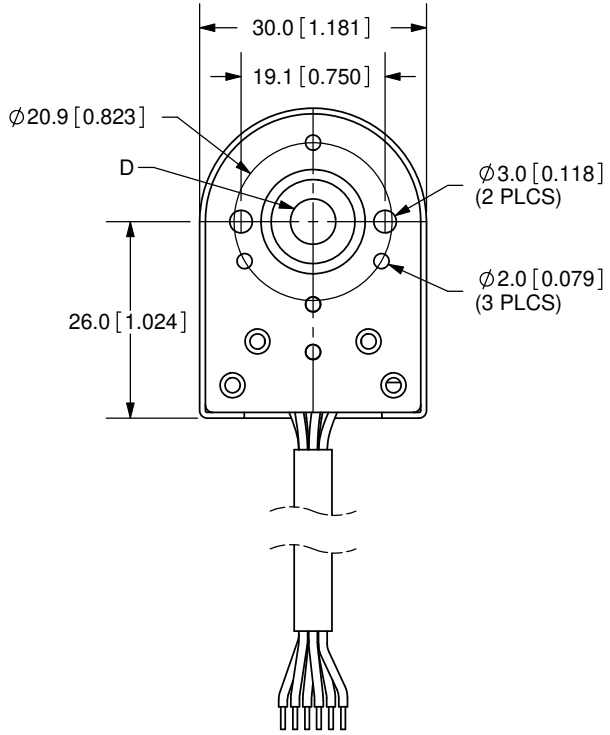


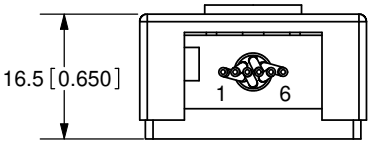
REV.	DESCRIPTION	DATE
A	NEW DRAWING	4/22/2008

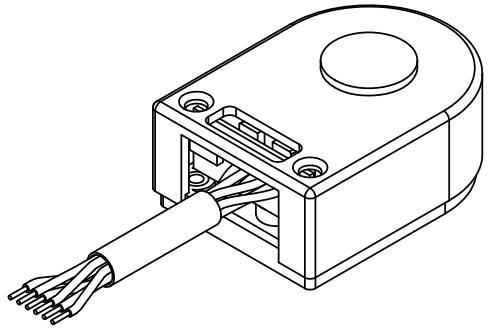




SECTION A-A







TOLERANCE:
±0.3mm UNLESS OTHERWISE SPECIFIED

RoHS

ØD (bore size)
3mm
4mm
5mm
6mm
6.35mm
8mm

Cable Code	1	2	3	4	5	6
Cable Color	Black	Red	Green	Brown	White	Grey
Line Driver Output	0V	Vcc	A	$\overline{A}$	B	$\overline{B}$
Cable Code	1	2	3	4	5	-
Cable Color	Black	Green	Red	White	-	-
Voltage Output	0V	A	Vcc	B	N.C.	-

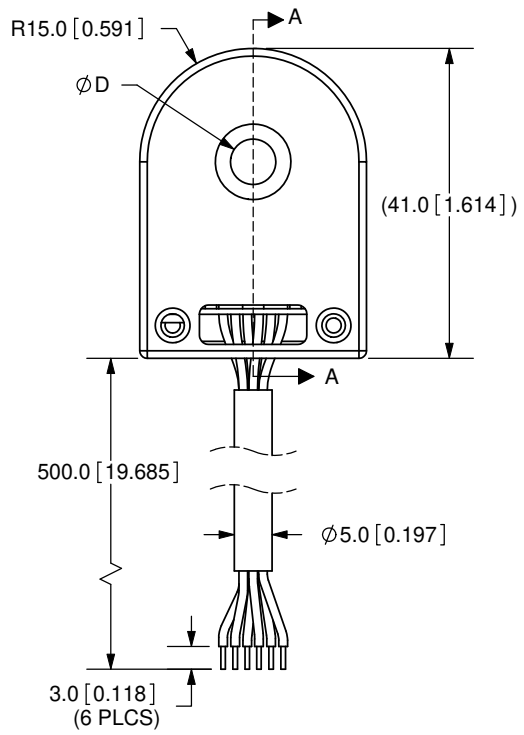
CUI INC

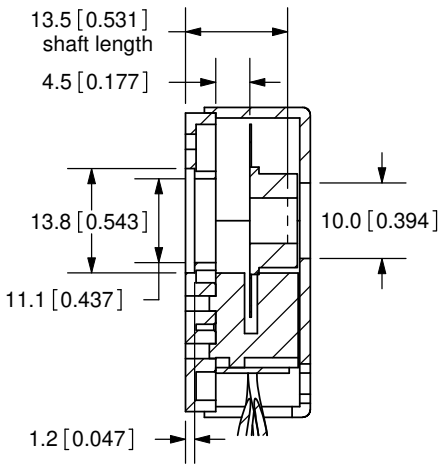
20050 SW 112th Ave.
Tualatin, OR 97062
Phone: 503-612-2300
800-275-4899
Fax: 503-612-2383
Website: www.cui.com

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

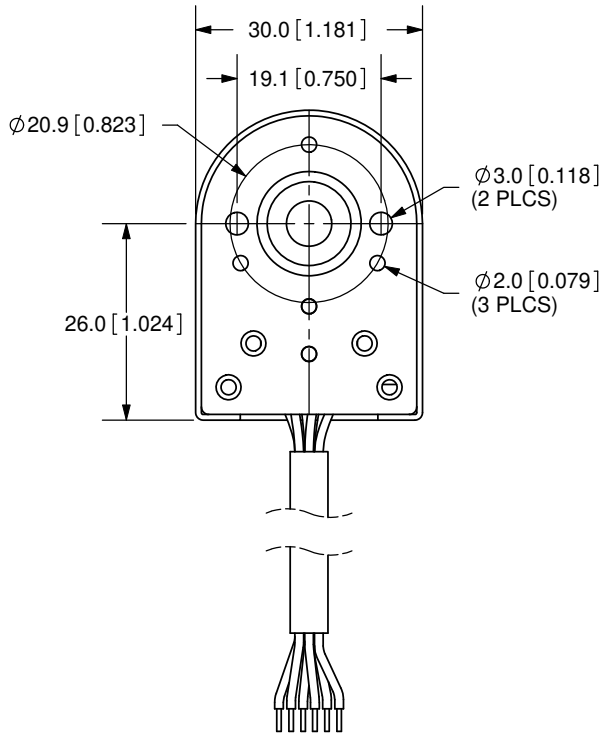
PC FILE NAME:
AME - STANDARD BORE

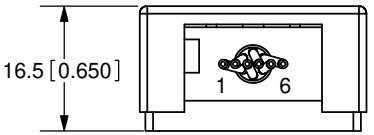
REV.	DESCRIPTION	DATE
A	NEW DRAWING	4/22/2008

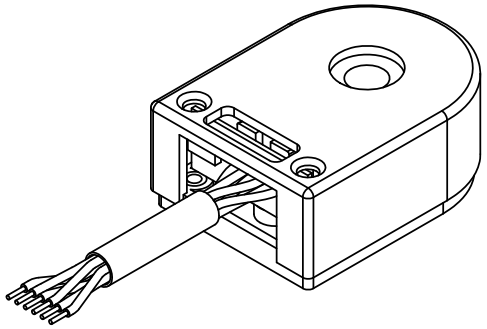




SECTION A-A







TOLERANCE:
±0.3mm UNLESS OTHERWISE SPECIFIED

RoHS

ØD (bore size)
3mm
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Cable Code	1	2	3	4	5	6
Cable Color	Black	Red	Green	Brown	White	Grey
Line Driver Output	0V	Vcc	A	$\overline{A}$	B	$\overline{B}$
Cable Code	1	2	3	4	5	-
Cable Color	Black	Green	Red	White	-	-
Voltage Output	0V	A	Vcc	B	N.C.	-

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Fax: 503-612-2383
Website: www.cui.com

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

PC FILE NAME:
AME - THROUGH BORE