PART NUMBER: MEH9-PS **DESCRIPTION:** sine wave encoder

ELECTRICAL SPECIFICATIONS

output waveform	A, B phase sine wave, Z phase square wave
output signals	A, B, Z phase
current consumption	≤40 mA
frequency response	0 ~ 100 KHz
output phase difference	A, B phase difference 90° ± 45° (T/4±T/8) Z phase T±T/2 (see output waveform)
supply voltage	5 V dc ± 10%
output resolution (ppr)	1000
waveform rise/fall time	2 µs or less (output cable 140 mm or less)

MECHANICAL SPECIFICATIONS

max shaft load, radial:	0.98 N (100 gf)
axial:	0.98 N (100 gf)
starting torque	1 x 10^{-3} N·m (10 gf·cm)
max rotational speed	6000 RPM
shock resistance	500 m/s^2 (50 G), 3 times each on XYZ
vibration proof	55 Hz, double amplitude 1.5mm, 2 hours each on XYZ
weight	10 g
cable	vinyl wire (AWG30), 140 mm

ENVIRONMENTAL SPECIFICATIONS

operating temp	0° ~ +60° C
storage temp	-20° ~ +80° C
humidity	RH 35%~90% non collecting

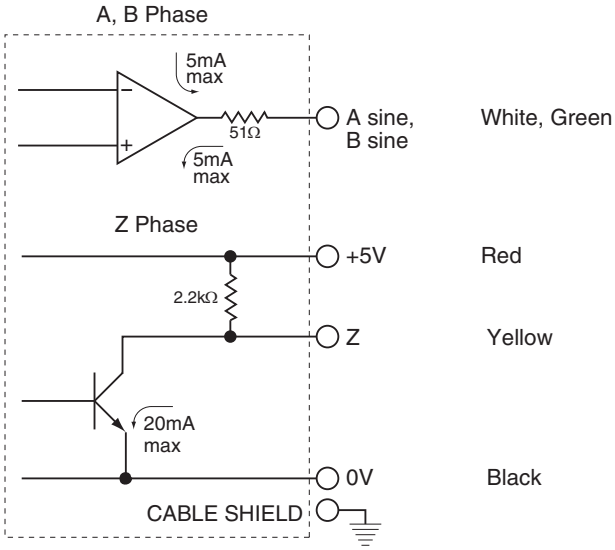
ORDERING INSTRUCTIONS

MEH9 - XXXXPS

Resolution (PPR):
1000 = 1000PPR

PART NUMBER: MEH9-PS **DESCRIPTION:** sine wave encoder

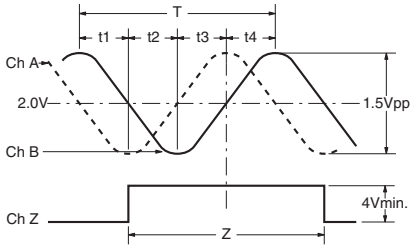
CIRCUIT CONNECTIONS



A capacitor (0.1 µF) is connected between 0 V and FG (frame ground).

OUTPUT WAVEFORM

Sine wave output
Clockwise rotation viewed from front



$T = 360^{\circ}$/ divisions $t1,t2,t3,t4 = \frac{T}{4} \pm \frac{T}{8}$

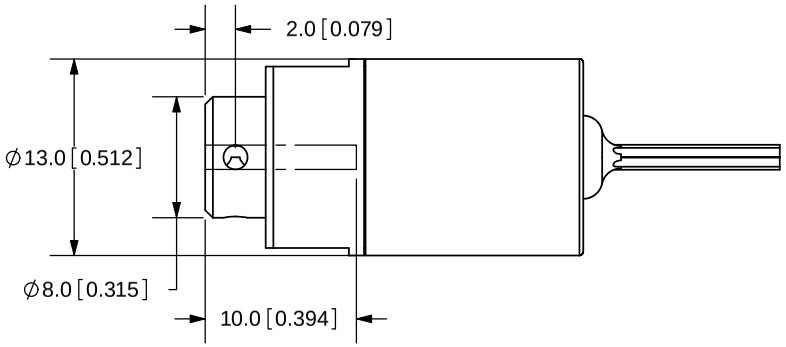
$Z = T \pm 0.50T$

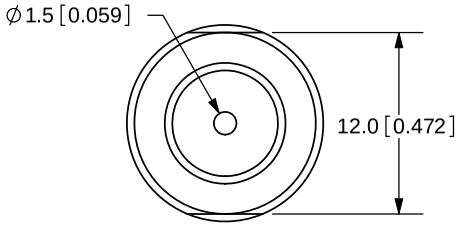
M = M X 20% or less

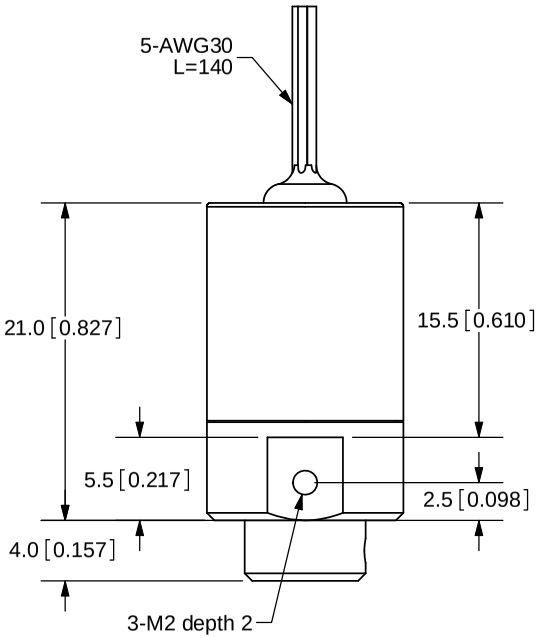
Amplitude variation rate
Amplitude waviness
A/B Phase amplitude ratio

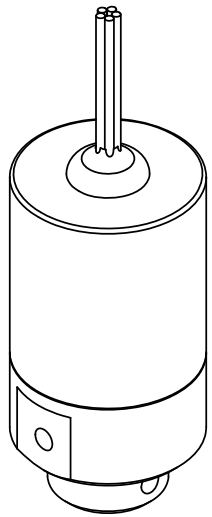
The position of Z phase against A, B phase is not specified

REV.	DESCRIPTION	DATE
A	NEW DRAWING	7/27/2007









TOLERANCE:
±0.3mm UNLESS OTHERWISE SPECIFIED

RoHS

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: Incremental Encoder			REV: A
PART NO. MEH9-PS		UNITS: MM [INCHES]	
DRAWN BY: JMS	APPROVED BY:		SCALE: 2:1

PC FILE NAME: MEH9-PS

Cable Color	Red	White	Green	Yellow	Black	-	-	-
Output Type	Power	A-Phase	B-Phase	Z-Phase	0V	-	-	-

For more information, please visit the product page.