



**PART NUMBER:** MES40

**DESCRIPTION:** incremental encoder

**ELECTRICAL SPECIFICATIONS**

output waveform	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% (line driver output only), 5~12 V dc ±10%, 24 V dc ± 10% (open collector output only)
output resolution (ppr)	100, 200, 300, 360, 400, 500, 512, 600, 1000, 1024, 2000, 3600, 5000, 10000

**MECHANICAL SPECIFICATIONS**

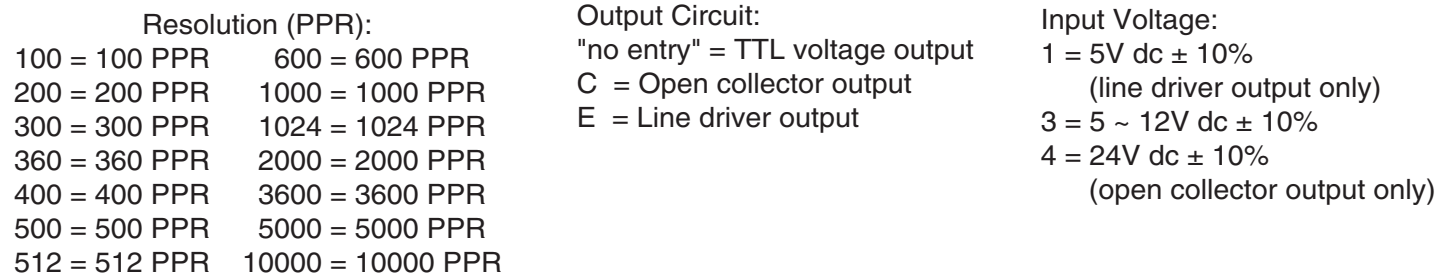
max shaft load, radial:	49N (5kgf)
axial:	29.4N (3kgf)
starting torque	2 x 10 <sup>-3</sup> N·m (20 gf·cm) 5 x 10 <sup>-3</sup> N·m (50 gf·cm) (drip-proof)
max rotational speed	6000 RPM
shock resistance	500 m/s <sup>2</sup> (50G), 3 times each on XYZ
vibration proof	55 Hz, double amplitude 1.5mm, 2 hours each on XYZ
weight	200g (with 1m cable)
cable	4.2mm outside diameter, 5 core vinyl wire insulated shield cable (1m)

**ENVIRONMENTAL SPECIFICATIONS**

operating temp	-10° to +70° C
storage temp	-20° to +80° C
humidity	RH 35%~90% non collecting

**ORDERING INSTRUCTIONS**

**MES40 - XXXXP-XX**

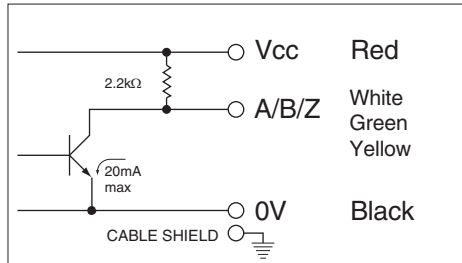


**PART NUMBER:** MES40

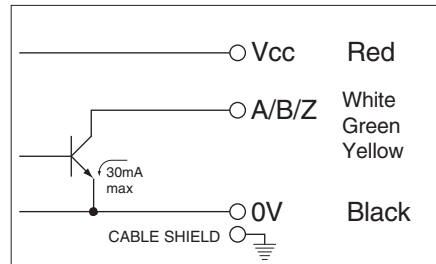
**DESCRIPTION:** incremental encoder

### CIRCUIT CONNECTIONS

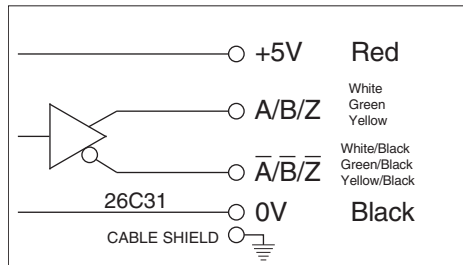
Voltage Output



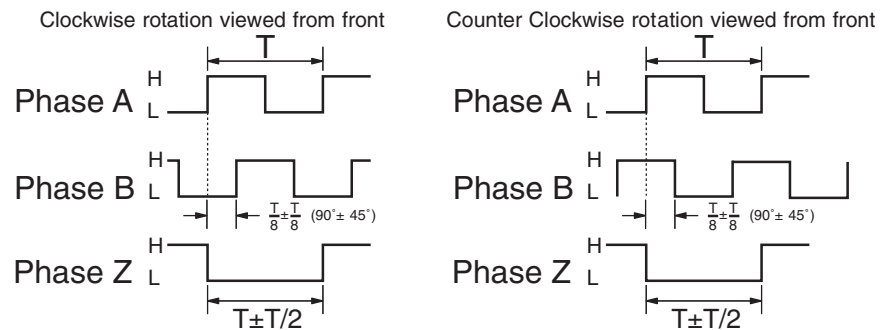
Open Collector Output (C)



Line Drive Output (E)

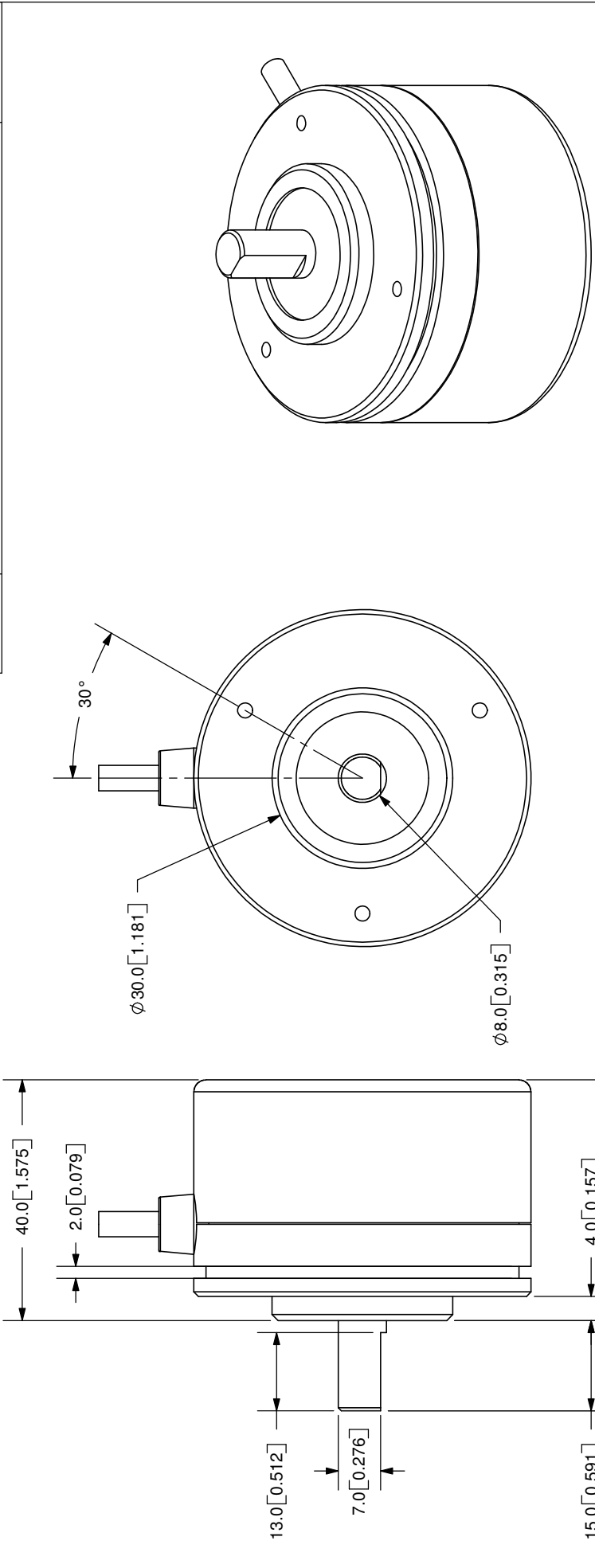


### OUTPUT WAVEFORM



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

REV.	DESCRIPTION	DATE
A	NEW DRAWING	7/30/2007



TOLERANCE:  
±0.3mm UNLESS OTHERWISE  
SPECIFIED



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:	MES40	UNITS:	MM [INCHES]
DRAWN BY:	JMS	APPROVED BY:	
SCALE:	1:1		

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

PC FILE NAME:	MES40
COPYRIGHT 2007 BY CUI INC.	