



**PART NUMBER:** MES12-2000PST

**DESCRIPTION:** incremental encoder

**ELECTRICAL SPECIFICATIONS**

output waveform	Square Wave
output signals	A, B, Z phase
current consumption	≤40 mA
frequency response	0~50 KHz X (by multiplication) Voltage Output - 100KHz Open collector
output phase difference	See output waveform
supply voltage	5 V dc ± 10%
output resolution (ppr)	4000, 8000, 16000, 32000
waveform fall / rise time	2μ or less (output cable 1m or less)

**MECHANICAL SPECIFICATIONS**

max shaft load, radial:	0.98N (100gf)
axial:	0.98N (100gf)
starting torque	1 x 10 <sup>-3</sup> N·m, 10 gf·cm
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	40 g (with 1m cable)
cable	3mm outside diameter 5-core vinyl wire, insulated shield cable (length 1m)

**ENVIRONMENTAL SPECIFICATIONS**

operating temp	0° to +50° C
storage temp	-20° to +80° C
humidity	RH 35%~90% non collecting

**ORDERING INSTRUCTIONS**

MES12 - 2000PSTXXX

Resolution (PPR):  
 2 = 2000 X 2 (4,000 PPR)  
 4 = 2000 X 4 (8,000 PPR)  
 8 = 2000 X 8 (16,000 PPR)  
 16 = 2000 X 16 (32,000 PPR)

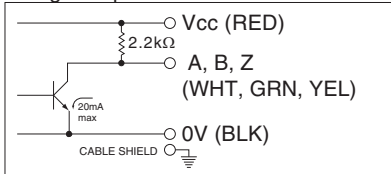
Output:  
 "no entry" = TTL voltage output  
 C = Open collector output  
 E = Line driver output

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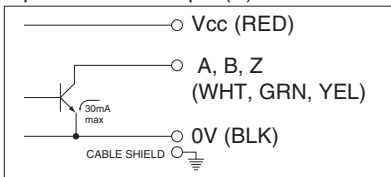
**DESCRIPTION:** incremental encoder

## CIRCUIT CONNECTIONS

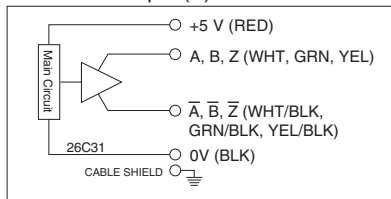
### Voltage Output



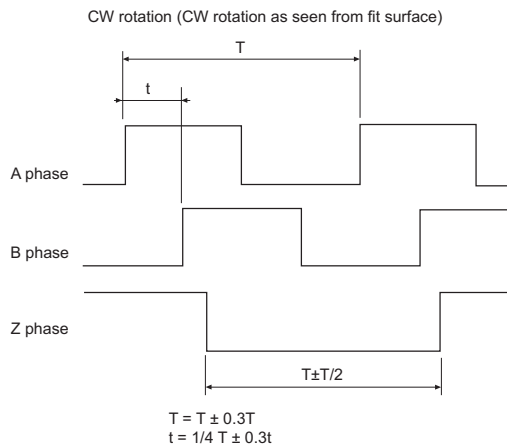
### Open Collector Output (C)



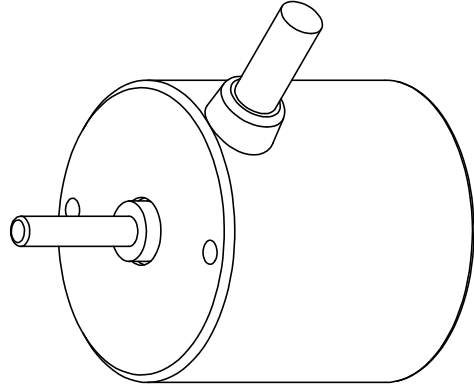
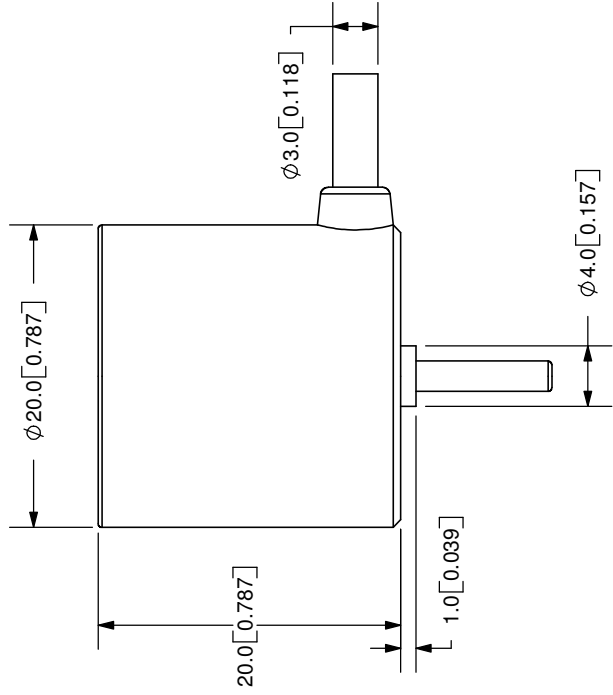
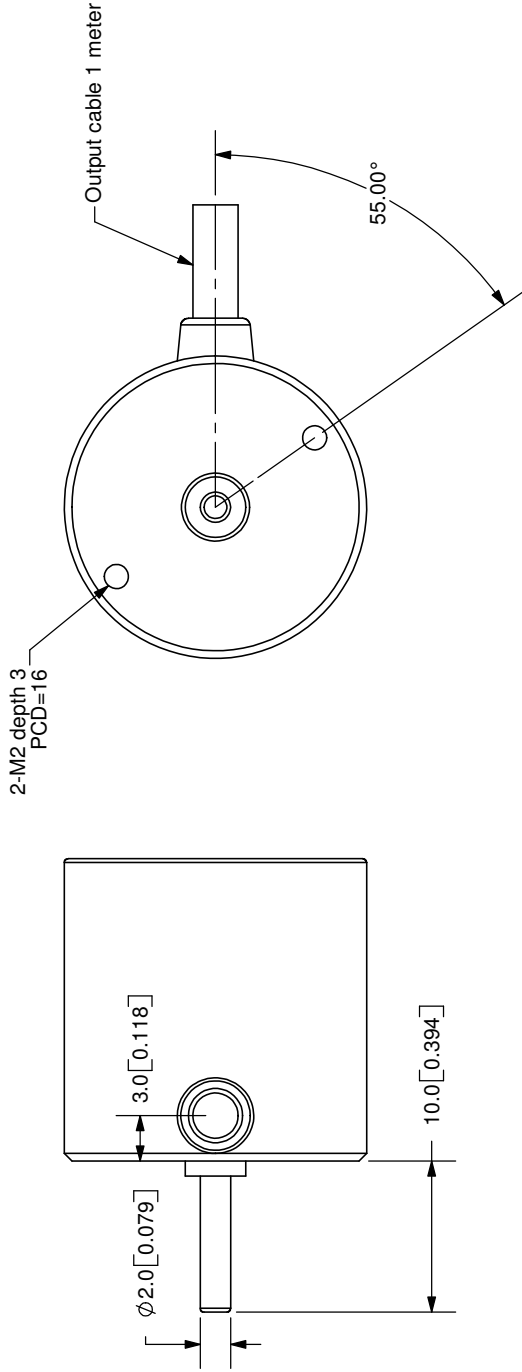
### Line Driver Output (E)



## OUTPUT WAVEFORM



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



TOLERANCE:  
±0.3mm UNLESS OTHERWISE  
SPECIFIED



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TITLE: Incremental Encoder	REV: A
PART NO: MES12	UNITS: MM [INCHES]
DRAWN BY: JMS	APPROVED BY:
	SCALE: 2:1

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

PC FILE NAME: MES12

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