



**PART NUMBER:** MEH9-1000PST

**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%
output resolution (ppr)	2000, 4000, 8000, 16000
waveform rise/fall time	1µ or less (outout cable 140mm 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.)
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	10g (with 140mm cable)
cable	Vinyl wire (AWG 30) 140mm cable

**ENVIRONMENTAL SPECIFICATIONS**

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

**ORDERING INSTRUCTIONS**

**MEH9 - 1000PSTXXX**

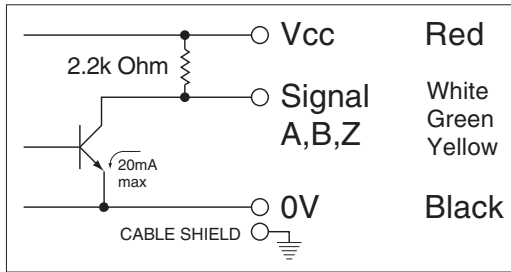
<p>Resolution (PPR):                  2 = 1000 X 2 (2,000 PPR)                  4 = 1000 X 4 (4,000 PPR)                  8 = 1000 X 8 (8,000 PPR)                  16 = 1000 X 16 (16,000 PPR)</p>	<p>Output:                  "no entry" = TTL voltage output                  C = Open collector output</p>
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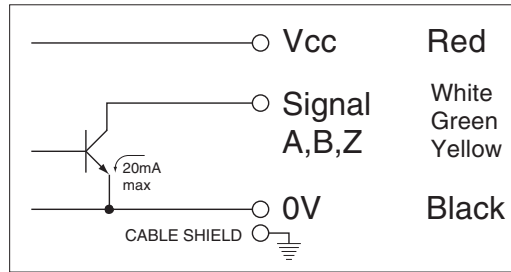
**DESCRIPTION:** incremental encoder

**CIRCUIT CONNECTIONS**

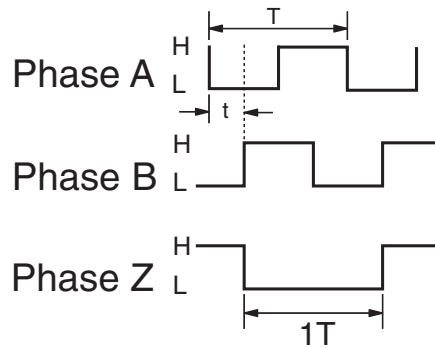
Voltage Output



Open Collector Output

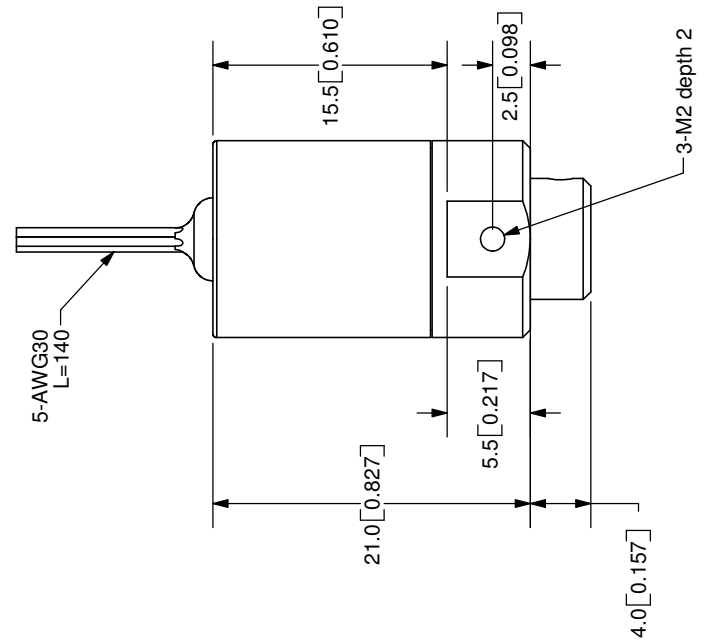
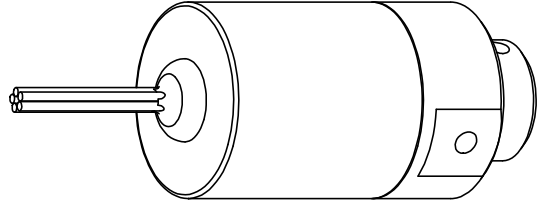
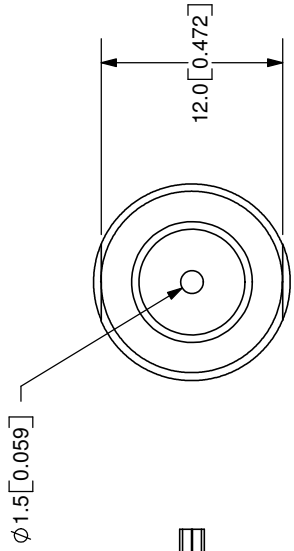
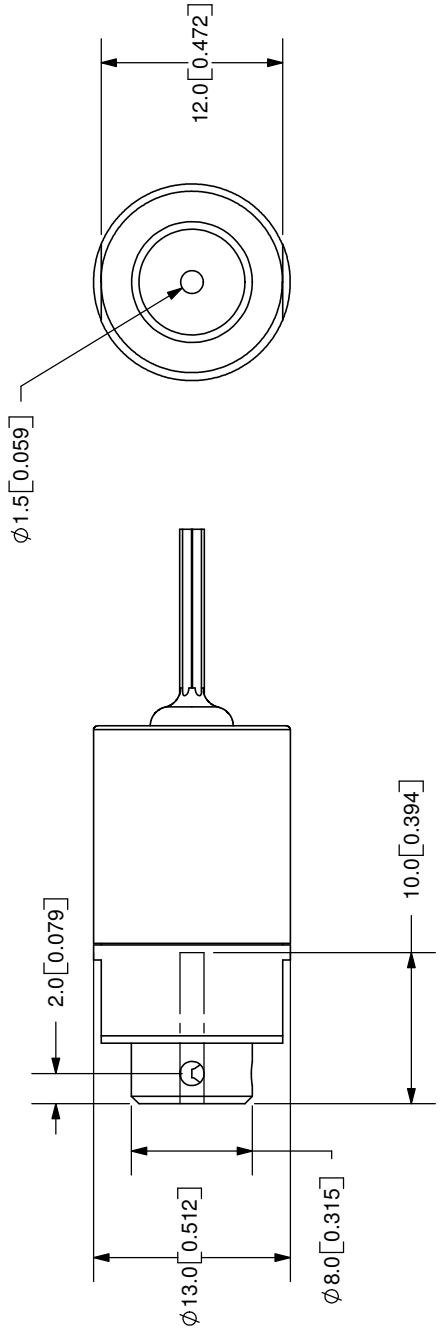


**OUTPUT WAVEFORM**



Synchronous with 1T of B phase  
 T: Waveform ratio of 1T       $T = T \pm 0.5$  (-T16)  
     $T \pm 0.4$  (-T8)  
     $T \pm 0.3$  (-T4, -T2)  
 t: Phase difference between adjacent A and B phases  
     $t = T/4 \pm 1/8T$

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:	MEH9	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: MEH9  
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