



**PART NUMBER:** MEH30

**DESCRIPTION:** incremental encoder

**ELECTRICAL SPECIFICATIONS**

output waveform	Square Wave
output signals	A, B, Z phase
current consumption	≤50 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 (Line driver output only), 5 V ~ 12 V dc ± 10%, 24 V dc ± 10% (open collector output only)
output resolution (ppr)	40, 50, 60, 100, 200, 250, 300, 360, 400, 450, 500, 512, 600, 720, 800, 900, 1000, 1024, 1200, 1500, 1800, 2000, 2048, 2500, 3600, 4500, 9000
waveform rise/fall time	2μ or less (output cable 1m or less)

**MECHANICAL SPECIFICATIONS**

max shaft load, radial:	19.6N (2kgf)	14.7N (1.5kgf) (800-9000 ppr)
axial:	9.8N (1kgf)	4.9N (0.5kgf) (800-9000 ppr)
starting torque	2 x 10 <sup>-3</sup> N·m (20 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	70g (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**

**MEH30 - XXXXP-XX-XX-XX**

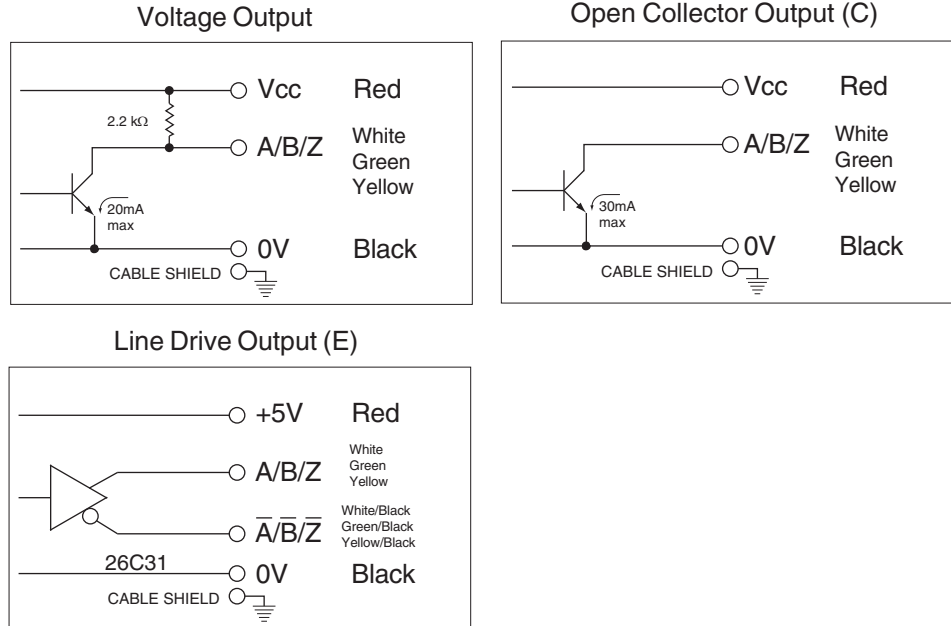
Resolution (PPR):	Output Circuit:	Input Voltage:	Bore Size:	Bore/Hub:
40 = 40 PPR*	"no entry" = Voltage output	1 = 5V dc ± 10%	8 = 8mm	"no entry" = Through/No Hub
50 = 50 PPR*	C = Open collector output	(line driver output only)	10 = 10mm	F1 = Through/Hub/Set Screw
60 = 60 PPR*	E = Line driver output	3 = 5 ~ 12V dc ± 10%		
100 = 100 PPR*		4 = 24V dc ± 10%		
200 = 200 PPR*		(open collector output only)		
250 = 250 PPR*				
300 = 300 PPR*				
360 = 360 PPR*				
400 = 400 PPR*				
450 = 450 PPR*				
500 = 500 PPR*				
512 = 512 PPR*				
600 = 600 PPR				
720 = 720 PPR				
800 = 800 PPR				
800 = 800 PPR				
900 = 900 PPR				
1000 = 1000 PPR				
1024 = 1024 PPR				
1200 = 1200 PPR				
1500 = 1500 PPR				
1800 = 1800 PPR				
2000 = 2000 PPR				
2048 = 2048 PPR				
2500 = 2500 PPR				
2500 = 2500 PPR				
3600 = 3600 PPR				
3600 = 3600 PPR				
4500 = 4500 PPR				
4500 = 4500 PPR				
9000 = 9000 PPR				

\*signifies only resolutions available with F1 Bore/Hub

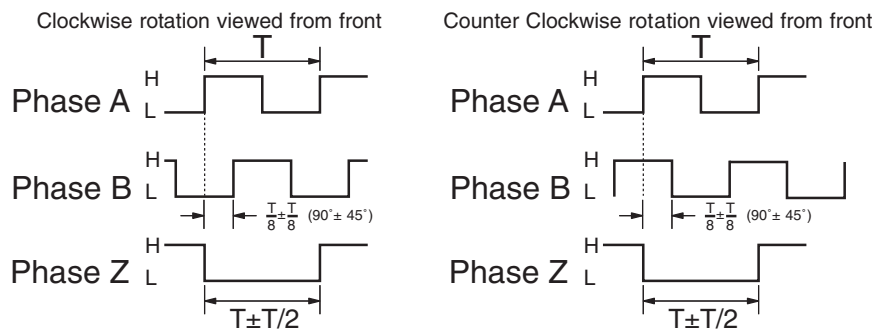
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### CIRCUIT CONNECTIONS

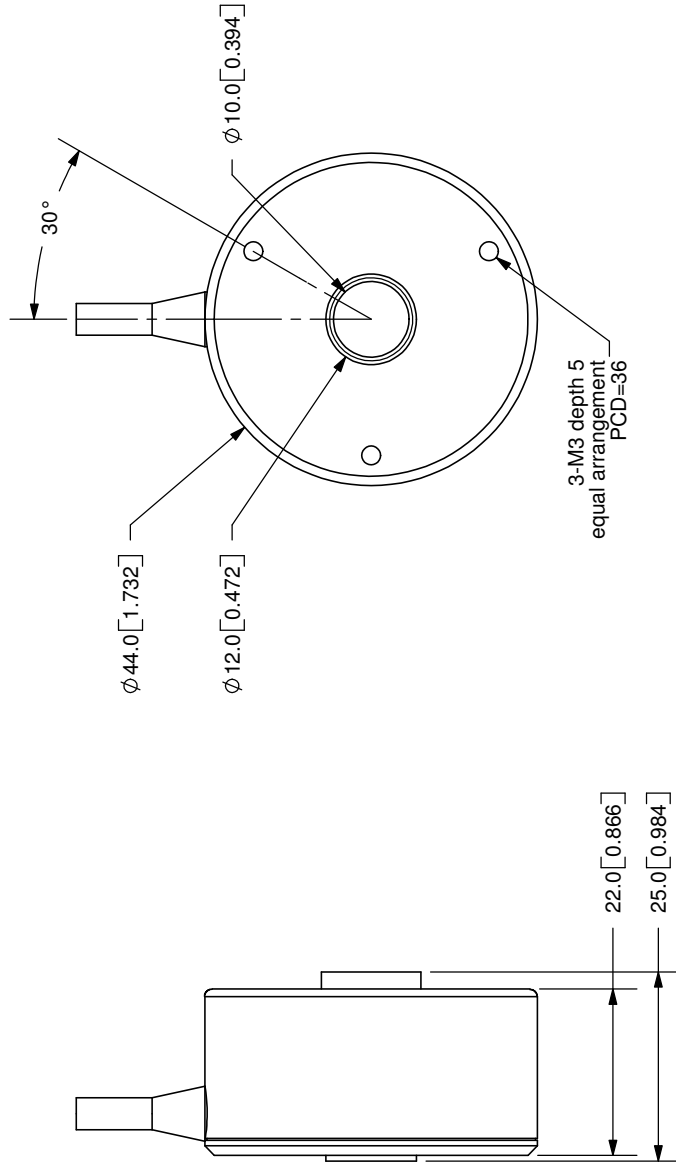


### OUTPUT WAVEFORM



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



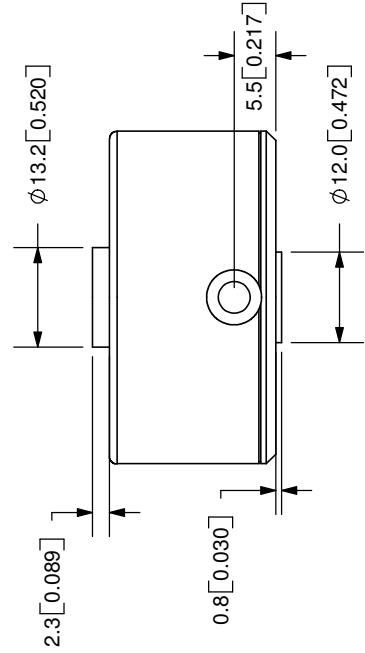
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TITLE: Incremental Encoder REV: A

PART NO: MEH30 UNITS: MM [INCHES]

DRAWN BY: JMS APPROVED BY: SCALE: 1:1



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

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PC FILE NAME:  
MEH30