

PART NUMBER: MEH20

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 ~ 12 V dc ± 10%, 24 V dc ± 10% (open collector output only)
output resolution (ppr)	40, 60, 100, 200, 250, 256, 300, 360, 400, 500, 512, 600, 800, 1000, 1024, 1200, 1800, 2000, 2048, 2500, 3600
waveform rise/fall time	2μ or less (outout cable 1m or less)

MECHANICAL SPECIFICATIONS

max shaft load, radial:	19.6N (2kgf)	14.7N (1.5kgf) (600-3600 ppr)
axial:	9.8N (1kgf)	4.9N (0.5kgf) (600-3600 ppr)
starting torque	2 x 10 ⁻³ NM (20 gf-cm)	
max rotational speed	6000 RPM	
shock resistance	500 m/s ² (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
MEH20 - XXXXPXX

Resolution (PPR):

40 = 40 PPR	512 = 512 PPR
60 = 60 PPR	600 = 600 PPR
100 = 100 PPR	800 = 600 PPR
200 = 200 PPR	1000 = 1000 PPR
250 = 250 PPR	1024 = 1024 PPR
256 = 256 PPR	1200 = 1200 PPR
300 = 300 PPR	1800 = 1800 PPR
360 = 360 PPR	2000 = 2000 PPR
400 = 400 PPR	2048 = 2048 PPR
500 = 500 PPR	1800 = 1800 PPR
	2500 = 2500 PPR
	3600 = 3600 PPR

Output Circuit:
 " " = Voltage output
 C = Open collector output
 E = Line Driver

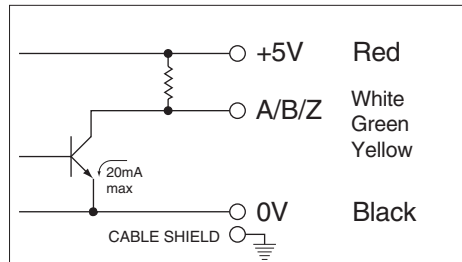
Input Voltage:
 1 = 5V dc ± 10%
 2 = 12V dc ± 10%
 3 = 5 ~ 12V dc ± 10%
 4 = 24V dc ± 10%

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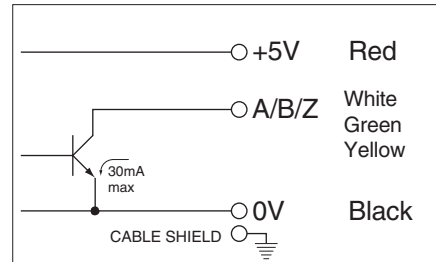
DESCRIPTION: incremental encoder

CIRCUIT CONNECTIONS

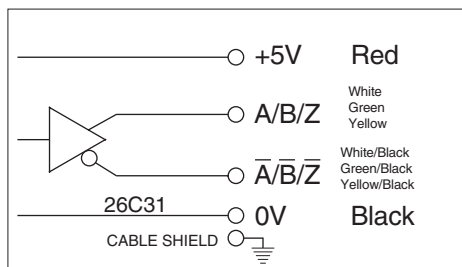
Voltage Output



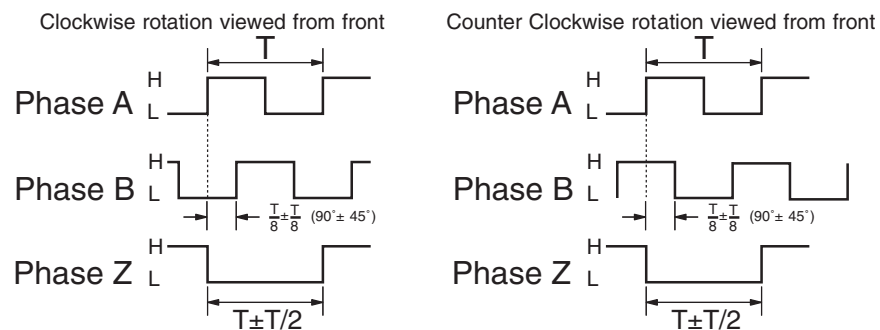
Open Collector Output (C)



Line Drive Output (E)

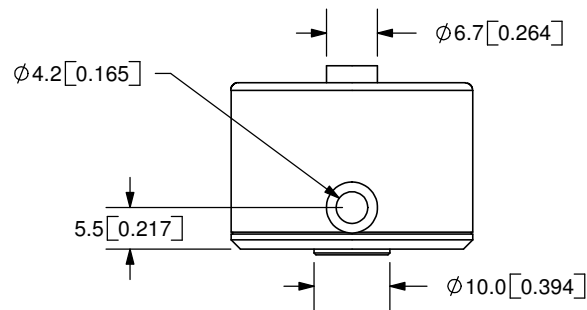
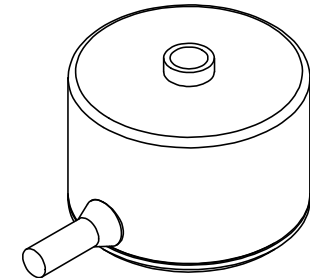
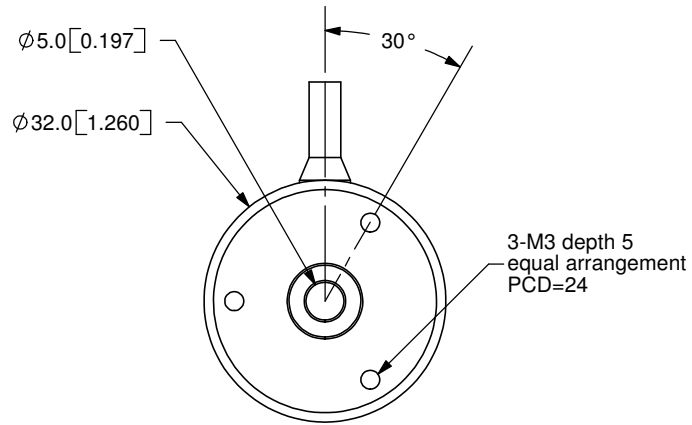
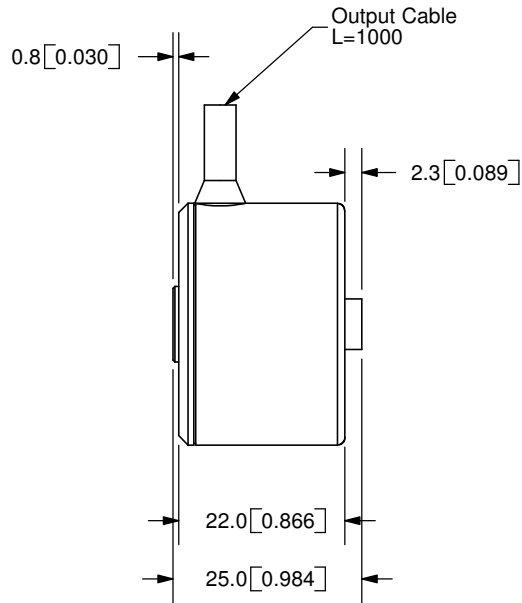


OUTPUT WAVEFORM



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

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



TOLERANCE:
±0.3mm UNLESS OTHERWISE
SPECIFIED



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TITLE: Incremental Encoder		REV: A
PART NO. MEH20		UNITS: MM [INCHES]
DRAWN BY: JMS	APPROVED BY:	SCALE: 1:1

PC FILE NAME:
MEH20

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