

**PART NUMBER:** MEH130**DESCRIPTION:** incremental encoder**ELECTRICAL SPECIFICATIONS**

output waveform	square wave
output signals	A, B, Z phase
current consumption	150 mA max.
frequency response	0~100 KHz
output phase difference	A, B phase difference $90^\circ \pm 45^\circ$ (T/4 \pm T/8) Z phase T \pm T/2 (see output waveform)
supply voltage	5 V dc $\pm 10\%$ (line driver output only), 5 V ~ 12 Vdc $\pm 10\%$, 24 Vdc $\pm 10\%$ (open collector output only)
output resolution (ppr)	360, 600, 1024, 4500, 5000, 9000, 20250, 25000, 28125
waveform rise/fall time	2 μ or less (output cable 1m or less)

MECHANICAL SPECIFICATIONS

max shaft load, radial:	19.6N (2kgf)
axial:	9.8N (1kgf)
starting torque	50 x 10 ⁻³ N·m (500 gf·cm) (no oil seal)
max rotational speed	1000 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	3kg (with 1m cable)
cable	4.2mm outside diameter, 5 core vinyl wire insulated shield cable (1m)

ENVIRONMENTAL SPECIFICATIONS

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

ORDERING INSTRUCTIONS**MEH130 - XXXXX-XX**

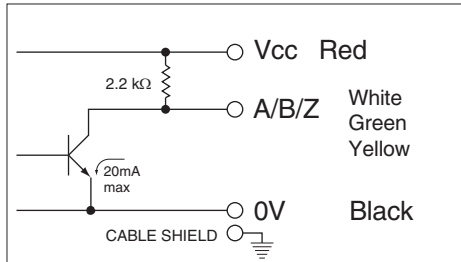
Resolution (PPR): 360 = 360 PPR 600 = 600 PPR 1024 = 1024 PPR 4500 = 4500 PPR 5000 = 5000 PPR 9000 = 9000 PPR 20250 = 20250 PPR 25000 = 25000 PPR 28125 = 28125 PPR	Output Circuit: "no entry" = TTL voltage output C = Open collector output E = Line driver output	Input Voltage: 1 = 5 V dc $\pm 10\%$ (line driver output only) 3 = 5 ~ 12V dc $\pm 10\%$ 4 = 24V dc $\pm 10\%$ (open collector output only)
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PART NUMBER: MEH130

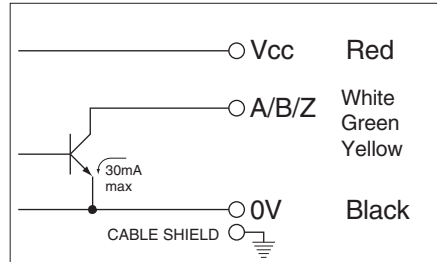
DESCRIPTION: incremental encoder

CIRCUIT CONNECTIONS

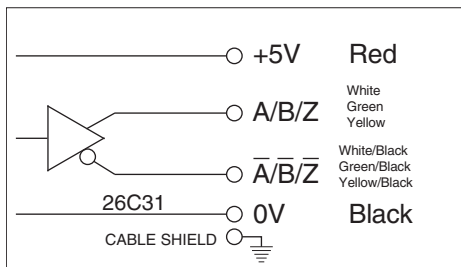
Voltage Output



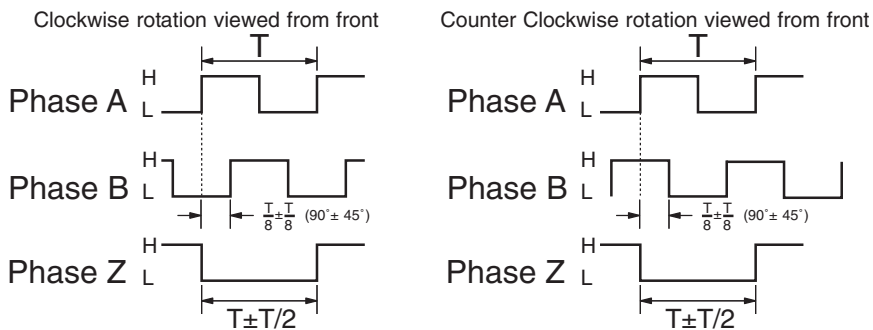
Open Collector Output (C)



Line Drive Output (E)

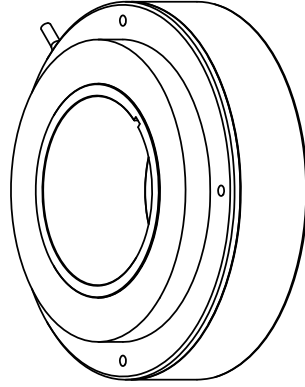
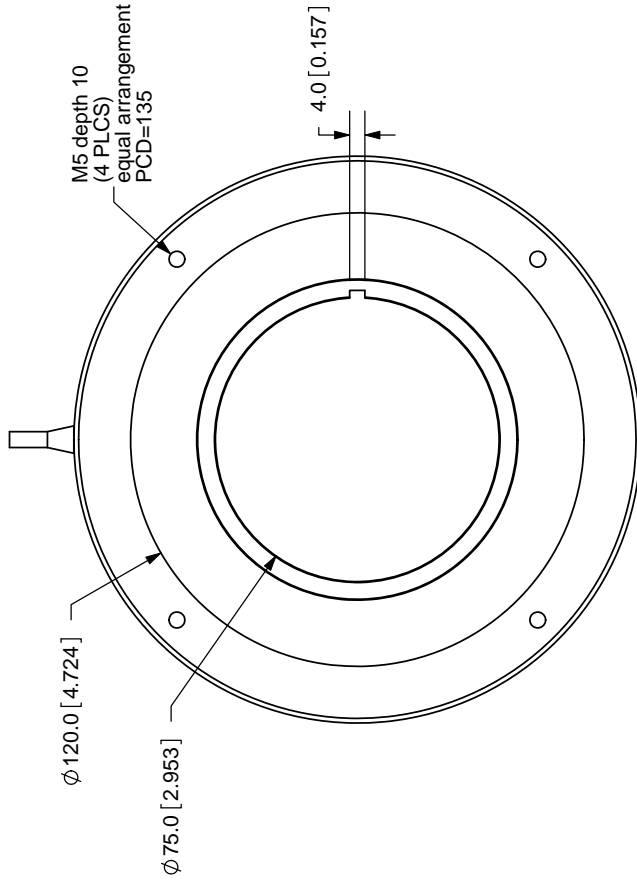
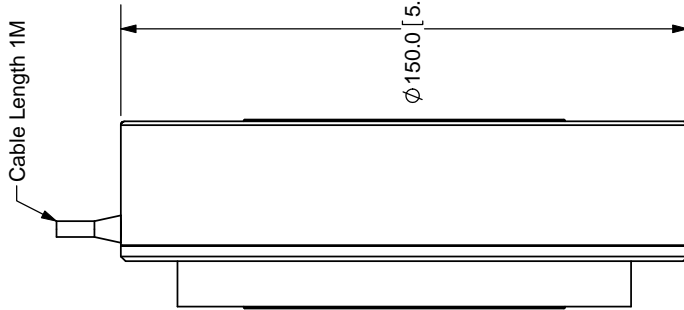


OUTPUT WAVEFORM



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

REV.	DESCRIPTION	DATE
A	NEW DRAWING	7/30/2007
B	drawing update	9/22/2008
C	added output types	4/27/2009



SCALE: 1:3



TOLERANCE:
 ±0.3mm UNLESS OTHERWISE SPECIFIED



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TITLE: INCREMENTAL ENCODER - 360 ~ 1024 REV: C

PART NO: MEH130 UNITS: MM [INCHES]

DRAWN BY: ZRJ APPROVED BY:

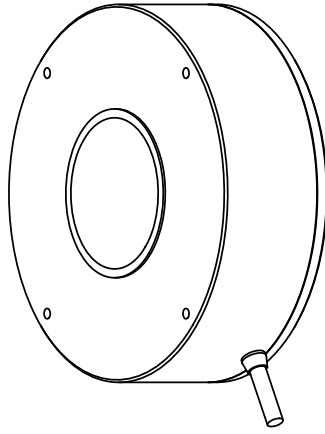
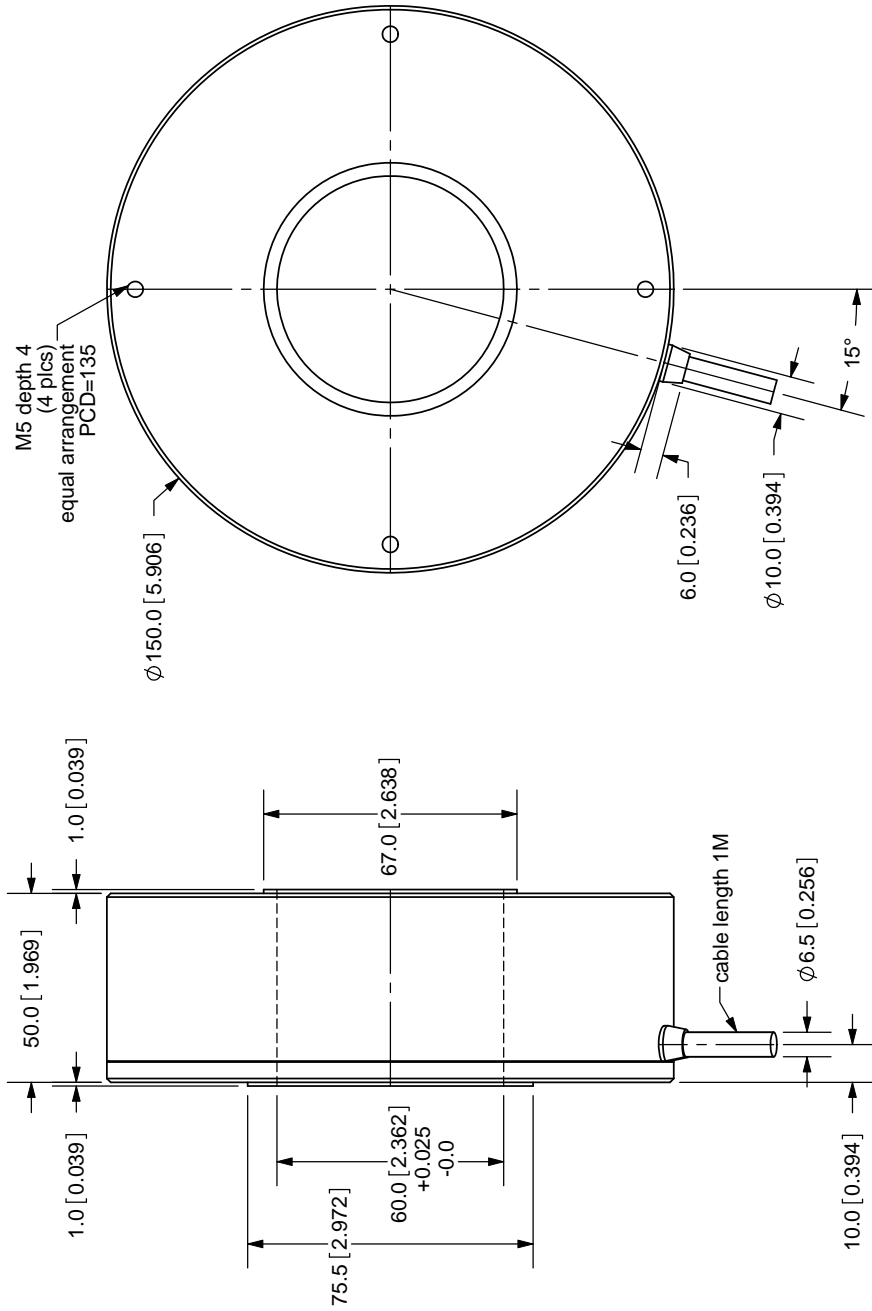
SCALE: 1:2

Cable Color	Output Type	LINE DRIVER ONLY					
		red	white	green	yellow	black	white/black
Power	A	B	Z	0V	B	Z	green/black/yellow/black

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PC FILE NAME: MEH130

REV.	DESCRIPTION	DATE
A	NEW DRAWING	4/27/2009



SCALE: 1:3



TOLERANCE:
#0.3mm UNLESS OTHERWISE
SPECIFIED



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TITLE: INCREMENTAL ENCODER - 4500 ~ 28125 REV: A

PART NO:	MEH130	UNITS:	MM [INCHES]
DRAWN BY:	ZRJ	APPROVED BY:	
		SCALE:	1:2

LINE DRIVER ONLY		white/black	green/black	yellow/black	black	0V	A	B	Z
Cable Color	red	white	green	yellow	black	0V	A	B	Z
Output Type	Power								

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PC FILE NAME:
MEH130