

**PART NUMBER:** MEH60**DESCRIPTION:** incremental encoder**ELECTRICAL SPECIFICATIONS**

output waveform	Square wave
output signals	A, B, Z phase
current consumption	≤60 mA, *≤120 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%, 5 V ~ 12 V dc ± 10% , 24 V dc ± 10%
output resolution (ppr)	180, 200, 360, 400, 500, 600, 1000, 1800, 2000, 4000, 5000, 5400, 9000, 10000, 10800, *21600, *43200
waveform rise/fall time	2μ or less (output cable 1m or less)

MECHANICAL SPECIFICATIONS

max shaft load, radial:	19.6N (2kgf)	9.8N (1kgf)	(1800-43200 ppr)
axial:	9.8N (1kgf)	4.7N (0.5kgf)	(1800-43200 ppr)
starting torque	20 x 10 ⁻³ N·m (200 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	320 g (with 1m cable) *430g (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**MEH60 - XXXXX - XX**

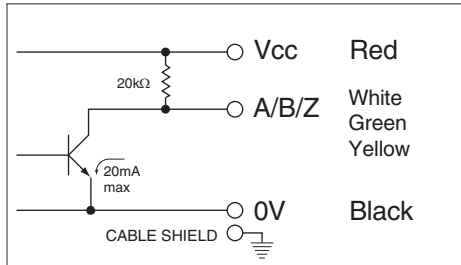
Resolution (PPR):	Output Circuit:	Input Voltage:
180 = 180 PPR	"no entry" = TTL Voltage output	1 = 5V dc ± 10% (line driver output only)
200 = 200 PPR	C = Open collector output	3 = 5 ~ 12V dc ± 10%
360 = 360 PPR	E = Line driver output	4 = 24V dc ± 10% (open collector output only)
400 = 400 PPR		
500 = 500 PPR		
600 = 600 PPR		
1000 = 1000 PPR		
1800 = 1800 PPR		
2000 = 2000 PPR		
4000 = 4000 PPR		
5000 = 5000 PPR		
5400 = 5400 PPR		
9000 = 9000 PPR		
10000 = 10000 PPR		
10800 = 10800 PPR		
*21600 = 21600 PPR		
*43200 = 43200 PPR		

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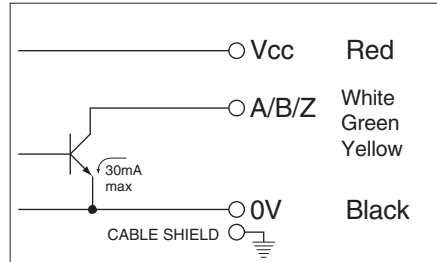
DESCRIPTION: incremental encoder

CIRCUIT CONNECTIONS

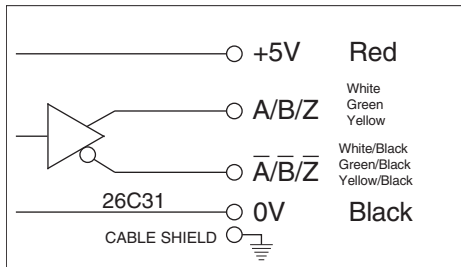
Voltage Output



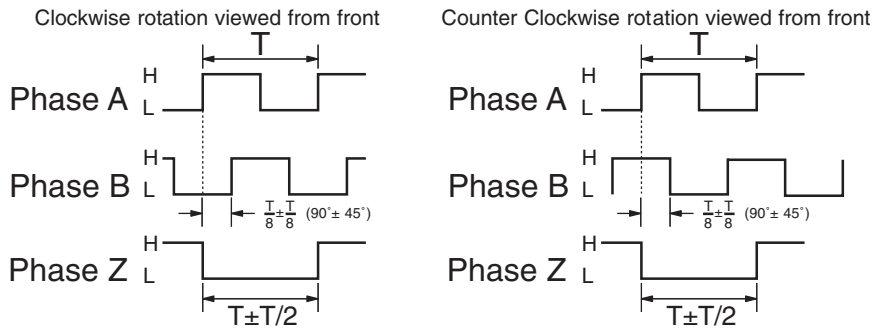
Open Collector Output (C)



Line Drive Output (E)



OUTPUT WAVEFORM



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

