



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

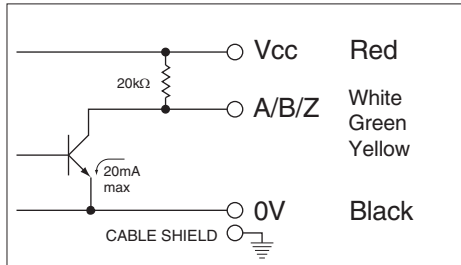
<p>Resolution (PPR):</p> <p>180 = 180 PPR 4000 = 4000 PPR</p> <p>200 = 200 PPR 5000 = 5000 PPR</p> <p>360 = 360 PPR 5400 = 5400 PPR</p> <p>400 = 400 PPR 9000 = 9000 PPR</p> <p>500 = 500 PPR 10000 = 10000 PPR</p> <p>600 = 600 PPR 10800 = 10800 PPR</p> <p>1000 = 1000 PPR *21600 = 21600 PPR</p> <p>1800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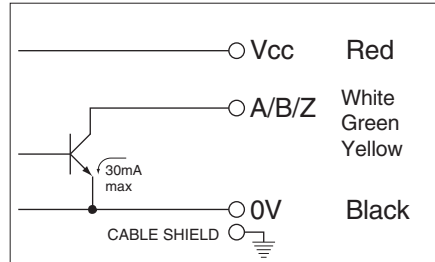
DESCRIPTION: incremental encoder

CIRCUIT CONNECTIONS

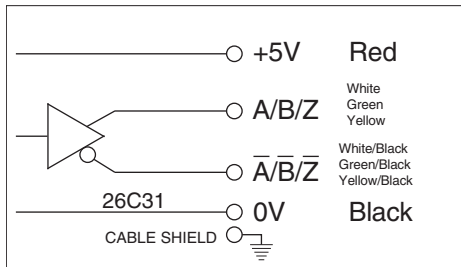
Voltage Output



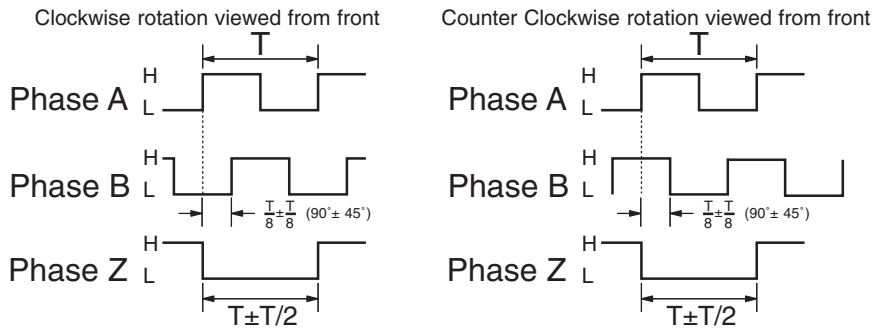
Open Collector Output (C)



Line Drive Output (E)



OUTPUT WAVEFORM



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

