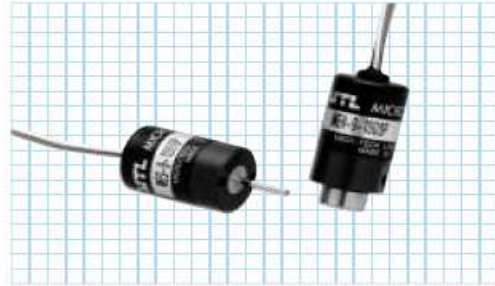




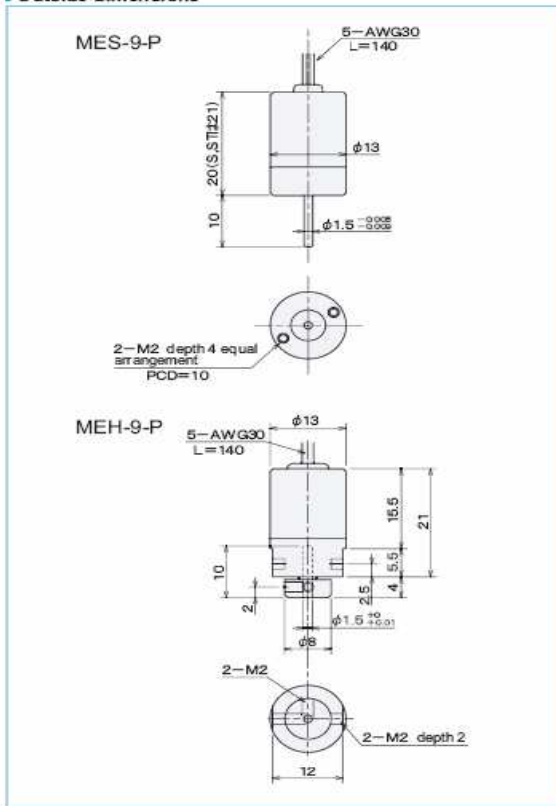
İMAJ TEKNİK
ELEKTRİK ELEKTRONİK MALZ. SAN. VE TİC. LTD. ŞTİ

ME-9-P series

[Square Wave/Incremental]



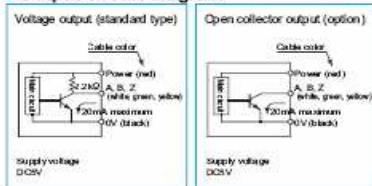
Outside dimensions



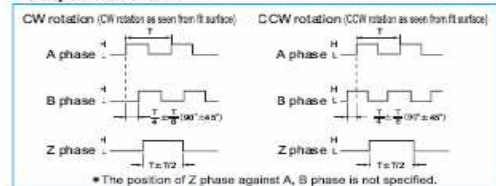
Specifications

Type name		ME <input type="checkbox"/> - 9 - <input type="checkbox"/> P <input type="checkbox"/>	
Item	Shaft shape	<ul style="list-style-type: none"> ● S= single shaft ● H= hollow shaft 	
	Pulse number	<ul style="list-style-type: none"> ● No entry= voltage output ● C= open collector output ● S= square wave output ● ST= built-in multistator output 	
	Output circuit		
Supply voltage	DC5V ±10%		
Current consumption	40mA or less (under no load)		
Detection system	Incremental		
Output	Output pulse number (Standard)	100 300	1000
	[Pulse number/rotation]	200 360	
Output phase	A, B, Z phase (Z= "H")		
Output form	Square wave		
Output capacity	Sink current: 20mA Residual voltage: 0.5V or less (at 10mA)		
Maximum response frequency (response pulse number)	100kHz		
Output phase difference	A, B phase difference 90°±45° (T/4±T/8) Z phase T±T/2 (see Output Waveform)		
Waveform rise/fall time	2µs or less (output cable 140mm or less)		
Starting torque	1 × 10 ⁻³ N·m (10gf·cm) or less		
Allowable load of shaft (electrical)	Radial	1.9N (200gf)	0.98N (100gf)
	Thrust	1.9N (200gf)	0.98N (100gf)
Maximum allowable revolutions (mechanical)	6000r/min		
Working ambient temperature/humidity	0°C~60°C RH35%~90% no dewing		
Storing ambient temperature	-20°C~80°C		
Vibration resistance	Durability 55Hz, double amplitude 1.5mm 2 hours each in X, Y, and Z directions		
Impact resistance	Durability 500m/s ² (about 50G) 3 times each in X, Y, and Z directions		
Cable	Vinyl wire (AWG30) Cable length 140mm		
Mass	10g		

Output circuit diagram



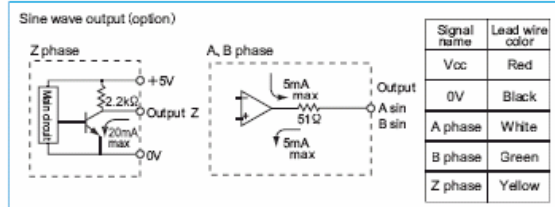
Output waveform



Specifications/Sine wave

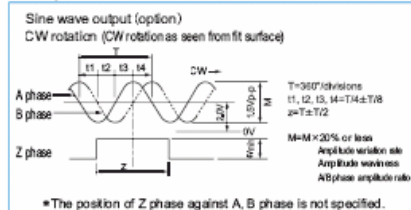
Supply voltage	DC5V ±10%	
Current consumption	40mA or less (under no load)	
Detection system	Sine wave·Incremental	
Output	Output pulse number (Standard) [Pulse number/rotation]	1000
	Output phase	A, B, Z phase
	Output form	Square wave
	A, B, Z phase output	SIN wave 1.5Vp-p±0.3V offset 2.0V±0.2V
		OP amp output current 5 mA MAX
		Harmonic distortion factor to be within 10% (Measuring condition to be within 20 kHz, effective value mean distortion factor measuring instrument)
	Maximum response frequency	100kHz
	Output phase difference	A, B phase difference 90°±45° (T4±T8) Z phase T±T/2 (see Output Waveform)
	Waveform rise/fall time	2μs or less (output cable 140mm or less)
	Starting torque	1 × 10 ⁻³ N·m (10gf·cm) or less
Allowable load of shaft (electrical)	Radial	0.98N (100gf)
	Thrust	0.98N (100gf)
Maximum allowable revolutions (mechanical)	5000r/min	
Working ambient temperature/humidity	0°C~60°C	
	RH35%~90% no dewing	
Storing ambient temperature	-20°C~80°C	
Vibration resistance	Durability 55Hz, double amplitude 1.5mm 2 hours each in X, Y, and Z directions	
Impact resistance	Durability 500m/s ² (about 50G) 3 times each in X, Y, and Z directions	
Cable	Vinyl wire (AWG30) Cable length 140mm	
Mass	10g	

Output circuit diagram



A capacitor (0.1μF) is connected between 0V and FG (frame ground).

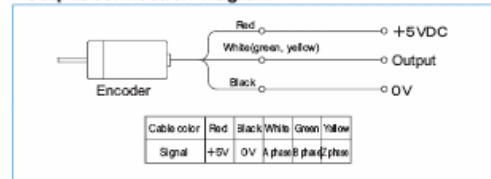
Output waveform



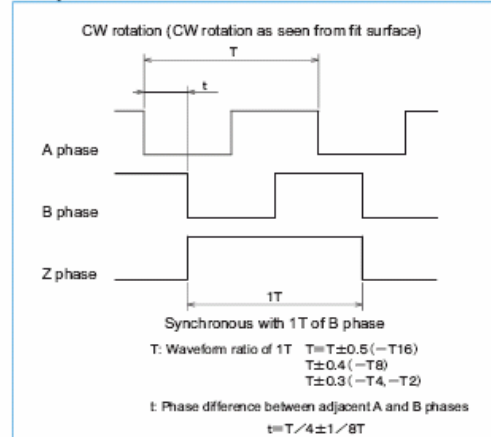
Specifications Built-in multiplication circuit (×2·×4·×8·×16)

Supply voltage	DC5V ±10%	
Current consumption	40mA or less (under no load)	
Detection system	Incremental	
Output	Output pulse number (Standard) [Pulse number/rotation]	1000×2 (2000) 1000×4 (4000) 1000×8 (8000) 1000×16 (16000) etc.
	Output phase	A, B, Z phase
	Output form	Square wave, Open collector output
	Maximum response frequency	Open collector output: 100kHz
	Output phase difference	See the diagram below.
	Waveform rise/fall time	1μs or less (output cable 140mm or less)
Starting torque	1 × 10 ⁻³ N·m (10gf·cm) or less	
Allowable load of shaft (electrical)	Radial	0.98N (100gf)
	Thrust	0.98N (100gf)
Maximum allowable revolutions (mechanical)	5000r/min	
Working ambient temperature/humidity	0°C~60°C	
	RH35%~90% no dewing	
Storing ambient temperature	-20°C~80°C	
Vibration resistance	Durability 55Hz, double amplitude 1.5mm 2 hours each in X, Y, and Z directions	
Impact resistance	Durability 500m/s ² (about 50G) 3 times each in X, Y, and Z directions	
Cable	Vinyl wire (AWG30) Cable length 140mm	
Mass	10g	

Output connection diagram



Output waveform



İmaj Teknik Elektrik Elektronik San. ve Tic. Ltd. Şti.

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