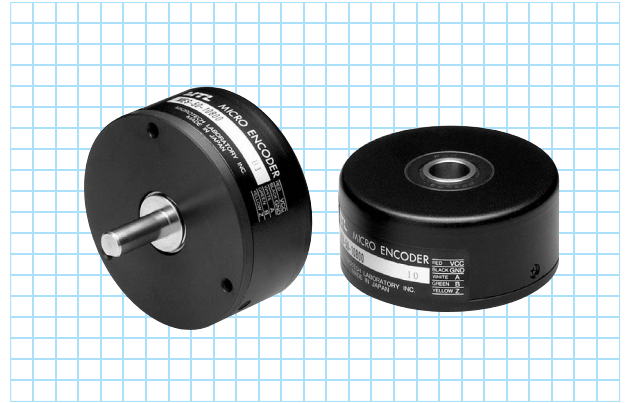


ME-50-P series

[Square Wave/Incremental]



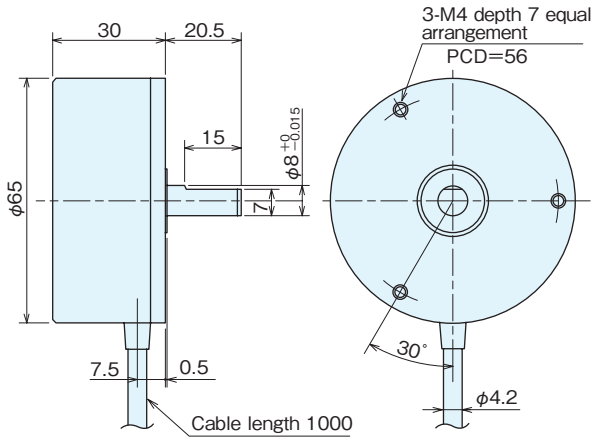
Specifications

Type name		ME□-50-□P□				
Item	Shaft shape		Pulse number	Output circuit		
	●S=single shaft	●H=hollow shaft		●No entry=voltage output	●C=open collector output	●C4=open collector output DC24V
				●E=line driver output	●S=sine wave output	
				●ST□(2·4·5·8·10·16·20)		
		Square wave			Built-in multiplication circuit (×2·×4·×5·×8·×10·×16·×20)	
Supply voltage		Voltage / Open collector: DC5V~12V+10% Open collector DC24V: DC24V±10% Line driver: DC5V±5%			Voltage: DC5V-5%~12V+10% Open collector: DC5V-5%~24V+10% Line driver: DC5V±5%	
Current consumption		60mA or less (under no load)			100mA or less (under no load)	
Detection system		Incremental			Incremental	
Output	Output pulse number (Standard) [Pulse number/rotation]	500 900 1,000 1,024	2,000 3,000 3,600 4,096(※)	5,000(※) 5,400(※) 6,000(※) 9,000(※) 10,000(※)	10,800(※)	EX 10,000×2 (20,000) 10,000×4 (40,000) 10,000×5 (50,000) 10,000×8 (80,000) 10,000×10 (100,000) 10,000×16 (160,000) 10,000×20 (200,000)
	Output phase	A, B, Z phase			A, B, Z phase	
	Output form	Square wave			Square wave	
	Output capacity	Sink current: 20mA Residual voltage: 0.5V or less (at 10mA)			—	
	Maximum response frequency (response pulse number)	100kHz			Line driver output: 50kHz× (by multiplication) Open collector output: 100kHz	
	Output phase difference	A, B phase difference 90°±45° (T/4±T/8) Z phase T±T/2 (see Output Waveform)			Refer to the figure on the right	
	Waveform rise/fall time	2μs or less (output cable 1m or less)			—	
Allowable load of shaft (electrical)	Radial	19.6N (2kgf)		9.8N (1kgf)		
	Thrust	9.8N (1kgf)		4.9N (0.5kgf)		
Maximum allowable revolutions (mechanical)	6,000r/min			6,000r/min		
Working ambient temperature/humidity	-10°C~70°C RH35%~90% no dewing			-10°C~70°C RH35%~90% no dewing		
Storing ambient temperature	-20°C~80°C			-20°C~80°C		
Vibration resistance	Durability 55Hz, double amplitude 1.5mm 2 hours each in X, Y, and Z directions			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			Durability 500m/s ² (about 50G) 3 times each in X, Y, and Z directions		
Cable	Outside diameter φ4.2 5-core vinyl wire Insulated shield cable (length 1m)			Outside diameter φ4.2 5-core vinyl wire Insulated shield cable (length 1m)		
Mass	220g			220g		

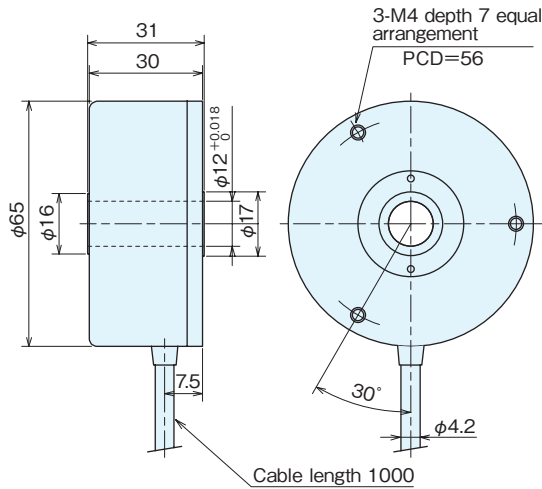
※Handled by built-in multiplier circuit

Outside dimensions

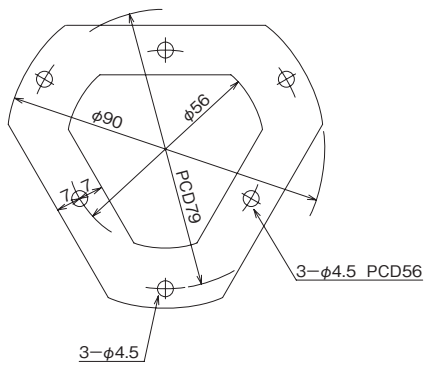
MES-50-P



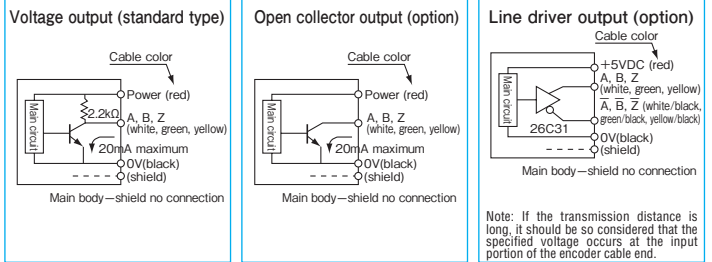
MEH-50-P



Spring flange MEH-50 (Option)

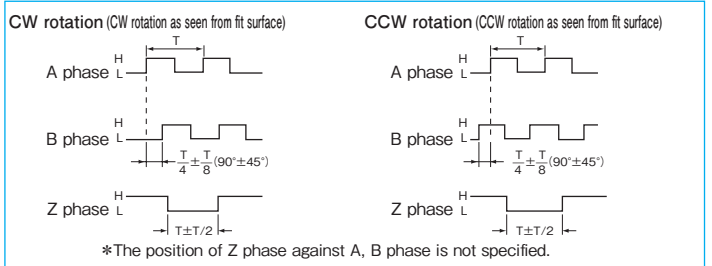


Output circuit diagram



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

Output waveform (Square wave)



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

Output waveform / Built-in multiplication circuit (x2·x4·x5·x8·x10·x16·x20)

