

MES-40-P series

[Square Wave/Incremental]

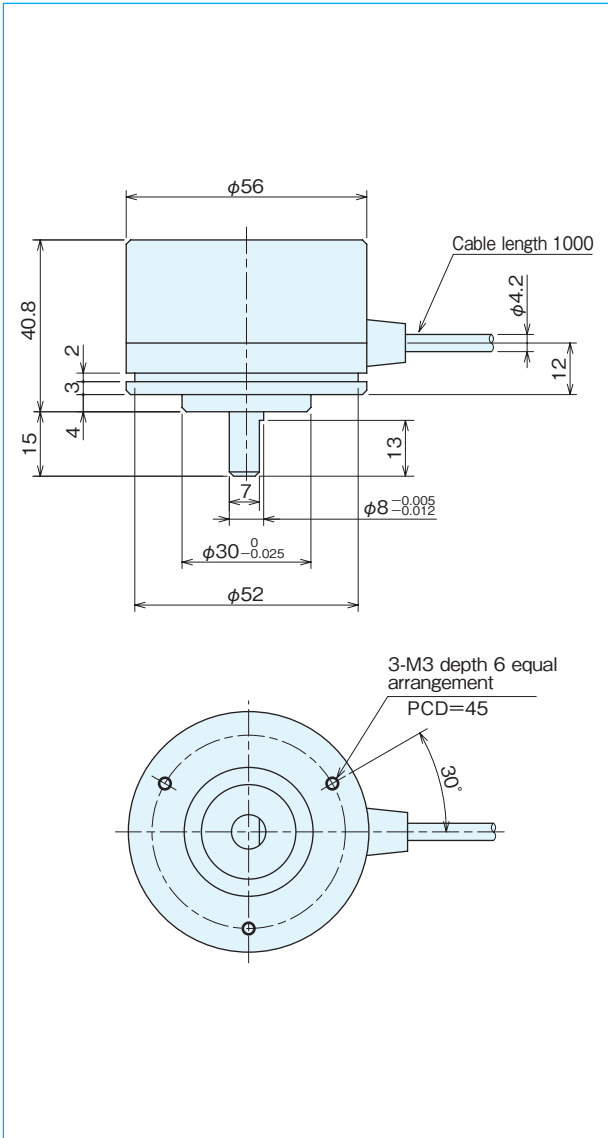


Specifications

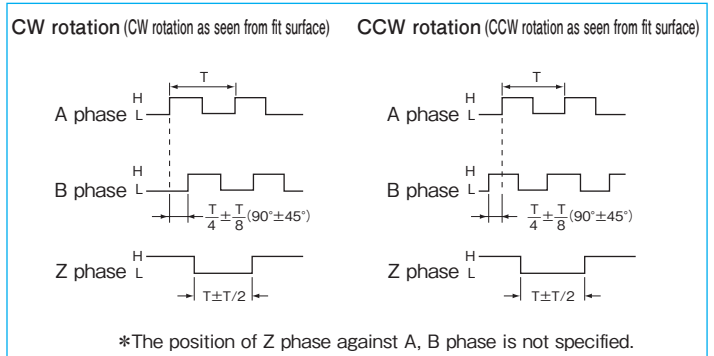
Type name		MES-40-□□P□□				
Item		Pulse number		Output circuit		
				<ul style="list-style-type: none"> ●No entry=voltage output ●C=open collector output ●C4=open collector output DC24V 	<ul style="list-style-type: none"> ●E=line driver output ●S=sine wave output ●ST□(2·4·5·8·10·16·20) 	
		Square wave		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±10%		Voltage:DC5V-5%~12V+10% Open collector:DC5V-5%~24V+10% Line driver:DC5V±5%		
Current consumption		50mA or less (under no load)		100mA or less (under no load)		
Detection system		Incremental		Incremental		
Output	Output pulse number (Standard) [Pulse number/rotation]	100 200 250 256 300 360 400 500 512	600 720 800 1,000 1,024 1,200 1,500 1,800 2,000(※)	2,048 2,500 3,000 3,600(※) 4,000(※) 4,096(※) 5,000(※) 5,400(※) 6,000(※)	8,192(※) 9,000(※) 10,000(※) 10,800(※) 11,250(※) 15,000(※)	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	49N(5kgf)		49N(5kgf)	
		Thrust	29.4N(3kgf)		29.4N(3kgf)	
	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	200g		200g			

※Handled by built-in multiplier circuit

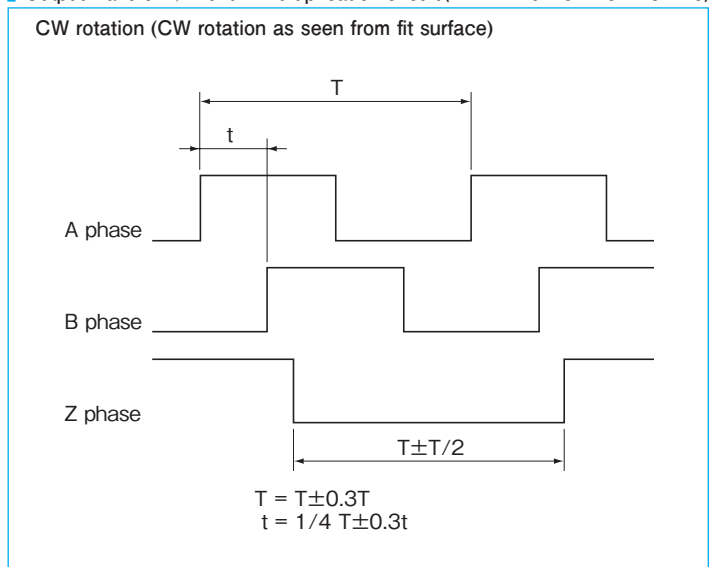
Outside dimensions



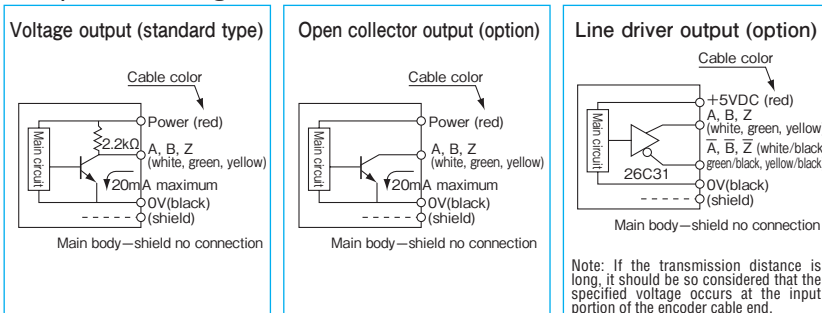
Output waveform (Square wave)



Output waveform / Built-in multiplication circuit ($\times 2 \cdot \times 4 \cdot \times 5 \cdot \times 8 \cdot \times 10 \cdot \times 16 \cdot \times 20$)



Output circuit diagram



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