

MES-40-P series

[Square Wave/Incremental]

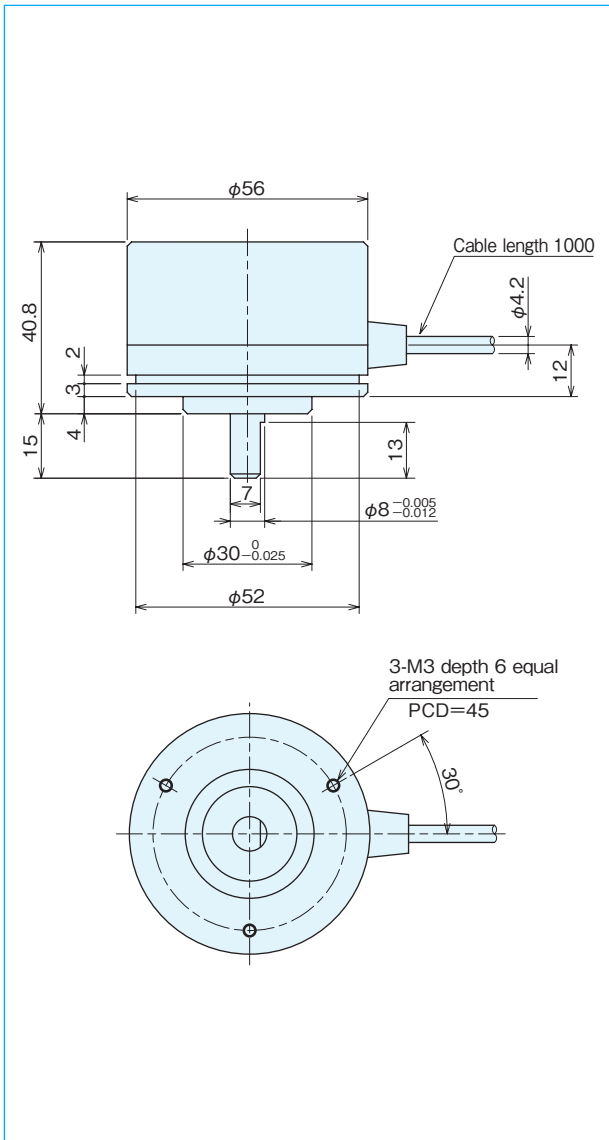


Specifications

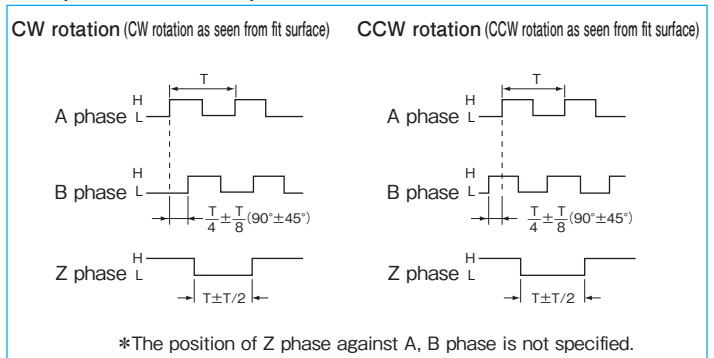
Type name		MES-40-□□P□□				
Item		Pulse number		Output circuit		
				●No entry=voltage output	●E=line driver output	
				●C=open collector output	●S=sine wave output	
				●C4=open collector output DC24V	●ST□(2·4·5·8·10·16·20)	
		Square wave			Built-in multiplication circuit (×2·×4·×5·×8·×10·×16·×20)	
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	600	2,048	8,192 (※)	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)
		200	720	2,500	9,000 (※)	
		250	800	3,000	10,000 (※)	
		256	1,000	3,600 (※)	10,800 (※)	
		300	1,024	4,000 (※)	11,250 (※)	
		360	1,200	4,096 (※)	15,000 (※)	
		400	1,500	5,000 (※)		
		500	1,800	5,400 (※)		
		512	2,000 (※)	6,000 (※)		
		Output 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

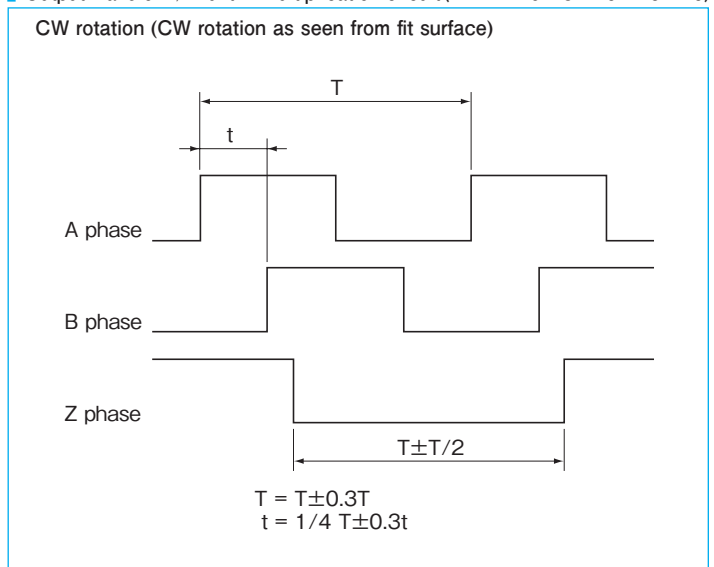
Outside dimensions



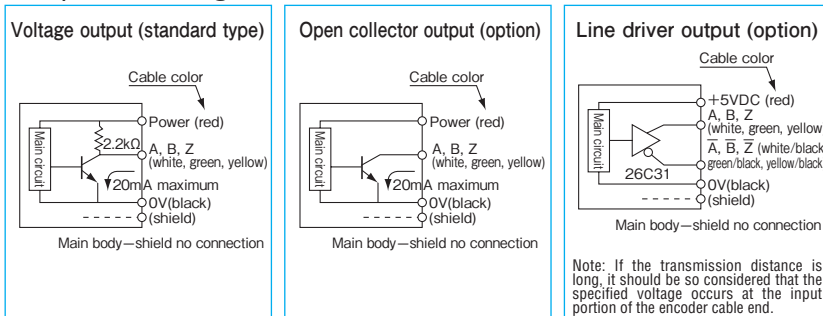
Output waveform (Square wave)



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



Output circuit diagram



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