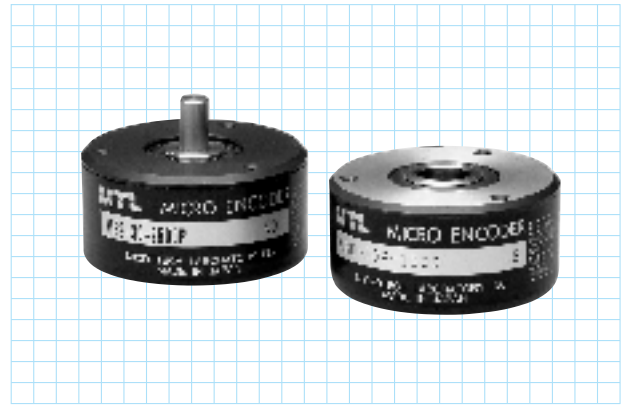


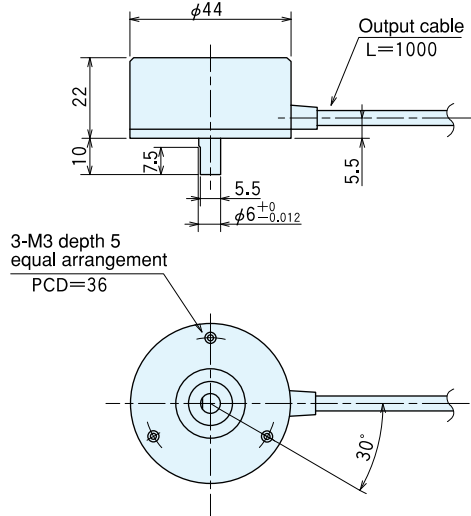
ME-30-P series

[Square Wave/Incremental]

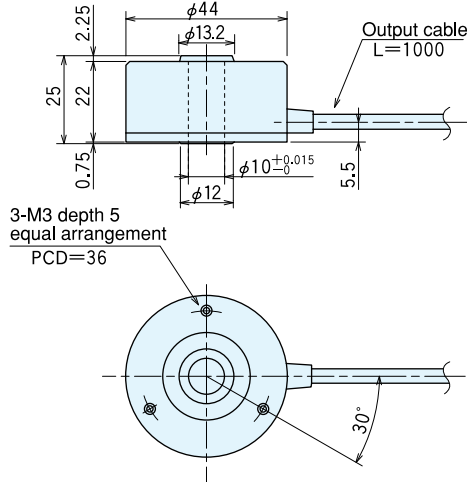


Outside dimensions

MES-30-P



MEH-30-P

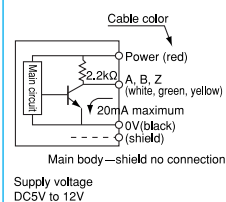


Specifications

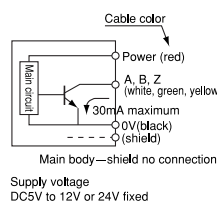
Type name		ME <input type="text"/> -30- <input type="text"/> P <input type="text"/>		
Item	Shaft shape	<ul style="list-style-type: none"> ●S=single shaft ●H=hollow shaft ●D=double shaft 		
	Pulse number	<ul style="list-style-type: none"> ●C=open collector output ●C4=open collector output DC24V ●S=sine wave output ●ST=built-in multiplication circuit 		
Supply voltage	DC5~12V ±10% DC24V±10%(open collector output only)			
Current consumption	50mA or less (under no load)			
Detection system	Incremental			
Output	Output pulse number (Standard)	40 50 60 100 200	250 300 360 400 450	500 512 600
	[Pulse number/rotation]	720 1,000 1,024 1,200 1,500 1,800	2,000 2,500 3,600 4,500 9,000 10,000	10,800
	Output phase	A, B, Z phase		
	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 1m or less)			
Starting torque	2×10 ⁻³ N·m (20gf·cm) or less			
Allowable load of shaft (electrical)	Radial	19.6N (2kgf)	14.7N (1.5kgf)	
	Thrust	9.8N (1kgf)	4.9N (0.5kgf)	
Maximum allowable revolutions (mechanical)	6,000r/min			
Working ambient temperature/humidity	-10°C~70°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	Outside diameter φ4.2 5-core vinyl wire Insulated shield cable (length 1m)			
Mass	140g			

Output circuit diagram

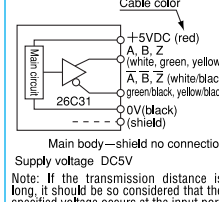
Voltage output (standard type)



Open collector output (option)

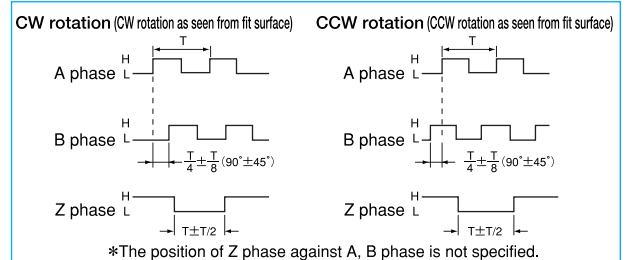


Line driver output (option)



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

Output waveform

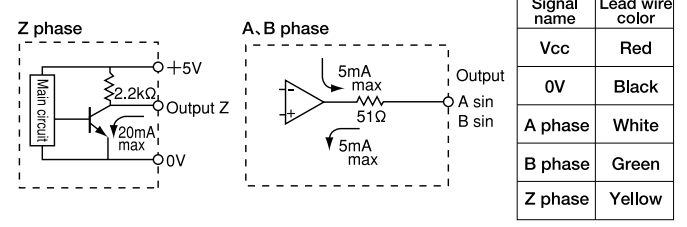


Specifications/Sine wave

Supply voltage	DC5V ±5%	
Current consumption	40mA or less (under no load)	
Detection system	Sine wave·Incremental	
Output pulse number (Standard) [Pulse number/rotation]	1,000	2,048
	1,500	3,600
	1,800	4,500
	2,000	
Output phase	A, B, Z phase	
Output form	A, B phase SIN wave, Z phase square wave	
A, B, Z phase output	SIN wave 1.5 V _{p-p} ±0.3 V offset 2.0V±0.2V	
	Opamp output current 5mA 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	50kHz	
Output phase difference	A, B phase difference 90°±45° (T/4±T/8) Z phase T±T/2 (see Output Waveform)	
Starting torque	2×10 ⁻³ N·m (20gf·cm) or less	
Allowable load of shaft (electrical)	Radial	14.7N (1.5kgf)
	Thrust	4.9N (0.5kgf)
Maximum allowable revolutions (mechanical)	6,000r/min	
Working ambient temperature/humidity	0°C~50°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	Outside diameter φ4.2 5-core vinyl wire Insulated shield cable (length 1m)	
Mass	140g	

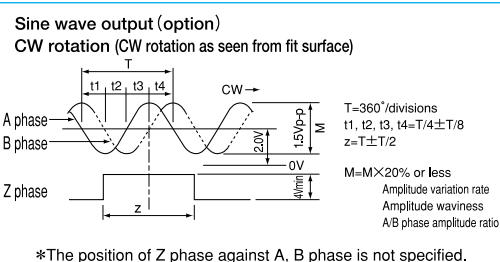
Output circuit diagram

Sine wave output (option)



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

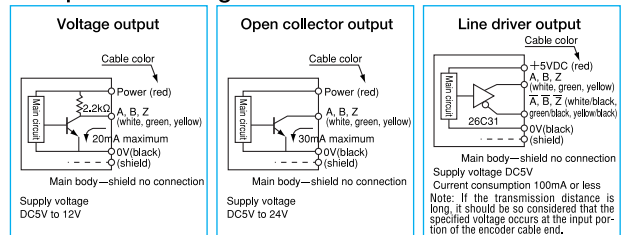
Output waveform



Specifications Built-in multiplication circuit (X2·X4·X8·X16)

Supply voltage	Voltage:DC5V-5%~12V+10% Open collector:DC5V-5%~24V+10% Line driver:DC5V±5%	
Current consumption	80mA or less (under no load)	
Detection system	Incremental	
Output	Output pulse number (Standard) [Pulse number/rotation]	EX 4,500×2 (9,000) 4,500×4 (18,000) 4,500×8 (36,000) 4,500×16 (72,000)
	Output phase	A, B, Z phase
	Output form	Square wave
	Maximum response frequency	Line driver output:50kHz× (by multiplication) Voltage output·Open collector output:100kHz
Output phase difference	See the diagram below.	
Starting torque	2×10 ⁻³ N·m (20gf·cm) or less	
Allowable load of shaft (electrical)	Radial	14.7N (1.5kgf)
	Thrust	4.9N (0.5kgf)
Maximum allowable revolutions (mechanical)	6,000r/min	
Working ambient temperature/humidity	-10°C~70°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	Outside diameter φ4.2 5-core vinyl wire Insulated shield cable (length 1m)	
Mass	140g	

Output circuit diagram



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

Output waveform

