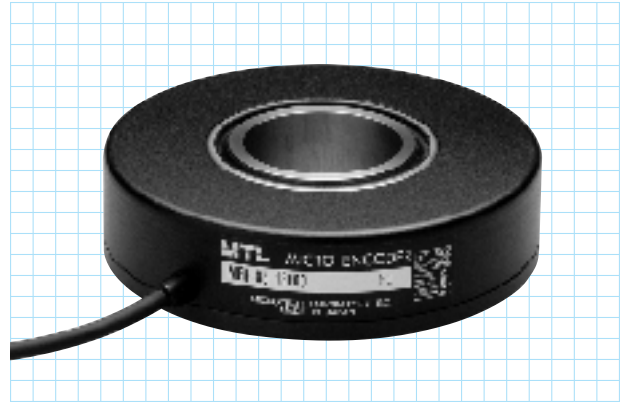


MEH-85 series

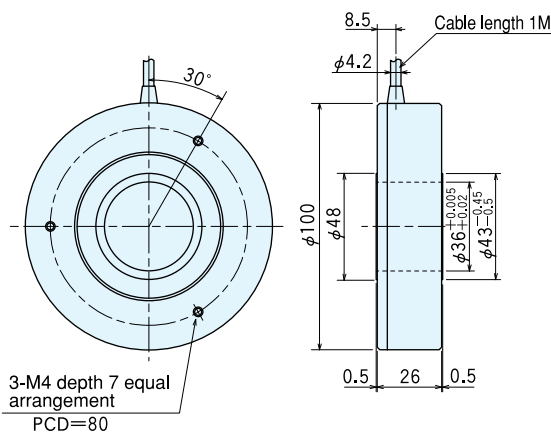
[Square Wave/Incremental]



Outside dimensions

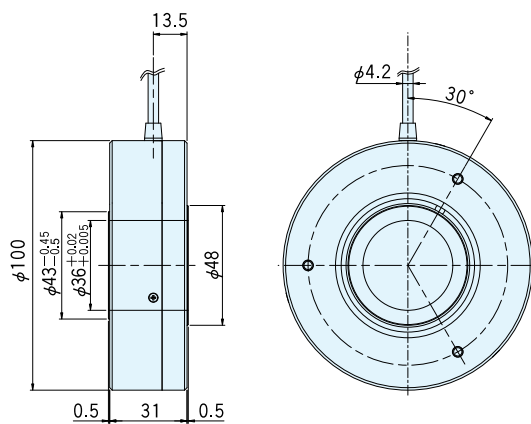
MEH-85

※1,024 pulse or less



MEH-85P,PS,PST

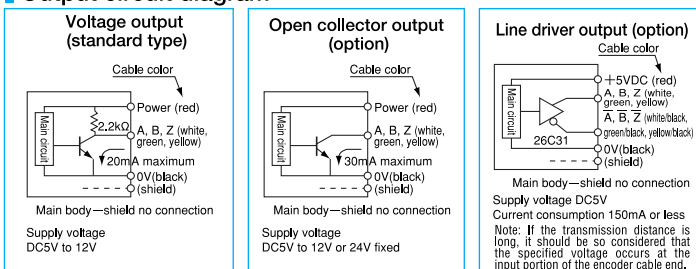
※3,600 pulse or more



Specifications

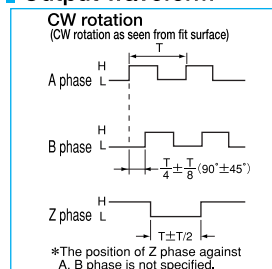
Type name	MEH-85- <input type="text"/> - <input type="text"/>	
Item	Pulse number: <input type="text"/> Output circuit: ●No entry=voltage output ●C=open collector output ●C4=open collector output DC24V ●E=line driver output ●S=sine wave output ●S1=built-in multiplication circuit ●F2=Two head detection	
Supply voltage	DC5~12V ±10% DC24V±10%(option)	
Current consumption	60mA or less(under no load)	
Detection system	Incremental	
Output	Output pulse number (Standard)	200, 4,500, 18,000 500, 5,400, 20,250 1,024, 7,200, 21,600 3,600, 10,800, 11,250
	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 In case of voltage output, load resistance shall be 2.2kΩ. (Refer to the output circuit diagram.)
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	40×10 ⁻³ N·m(400gf·cm) or less(no oil seal)	
Allowable load of shaft (electrical)	Radial	9.8N (1kgf)
	Thrust	4.7N (0.5kgf)
Maximum allowable revolutions (mechanical)	3,000r/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	Outside diameter φ4.2 5-core vinyl wire Insulated shield cable (length 1m)	
Mass	520g	

Output circuit diagram



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

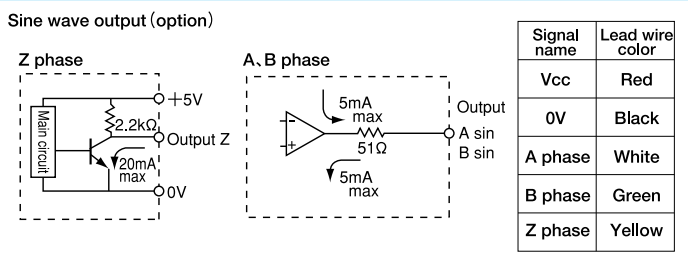
Output waveform



Specifications/Sine wave

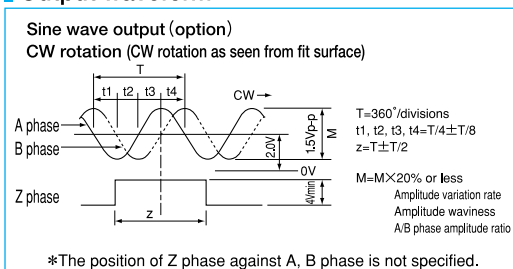
Supply voltage	DC5V ±5%		
Current consumption	40mA or less (under no load)		
Detection system	Sine wave·Incremental		
Output	Output pulse number (Standard) [Pulse number/rotation]	18,000	
	Output phase	A, B, Z phase	
	Output form	A, B phase SIN wave, Z phase square wave	
	A, B, Z phase output	SIN wave 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	40×10 ⁻³ N·m (400gf·cm) or less		
Allowable load of shaft (electrical)	Radial	9.8N (1kgf)	
	Thrust	4.9N (0.5kgf)	
Maximum allowable revolutions (mechanical)	3,000r/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	520g		

Output circuit diagram



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

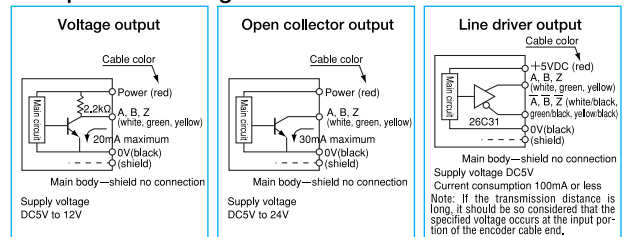
Output waveform



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	140mA or less (under no load)	
Detection system	Incremental	
Output	Output pulse number (Standard) [Pulse number/rotation]	EX 18,000×2 (36,000) 18,000×4 (72,000) 18,000×8 (144,000) 18,000×16 (288,000)
	Output phase	A, B, Z phase
	Output form	Square wave
	Maximum response frequency	Line driver output:75kHzX (by multiplication) Voltage output·Open collector output:100kHz
Output phase difference	See the diagram below.	
Starting torque	40×10 ⁻³ N·m (400gf·cm) or less	
Allowable load of shaft (electrical)	Radial	9.8N (1kgf)
	Thrust	4.9N (0.5kgf)
Maximum allowable revolutions (mechanical)	3,000r/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	Outside diameter φ4.2 5-core vinyl wire Insulated shield cable (length 1m)	
Mass	1,300g	

Output circuit diagram



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

Output waveform

