

ME-30-P series

[Square Wave/Incremental]



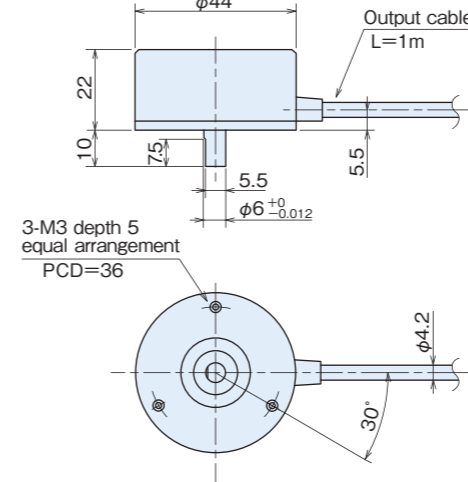
Specifications

Item	Type name		
	ME	P	
	Shaft shape ●S=single shaft ●H=hollow shaft ●D=double shaft	Pulse number Output circuit ●No entry=voltage output ●C=open collector output ●C4=open collector output DC24V	
		●E=line driver output ●ST□(2-4-5-8-10-16-20)	
	Square wave	Built-in multiplication circuit (x2·x4·x5·x8·x10·x16·x20)	
Supply voltage	Voltage/Open collector:DC5V-5%~12V+10% Open collector C4:DC24V±10% Line driver:DC5V±5%	Voltage:DC5V-5%~12V+10% Open collector:DC5V-5%~24V+15% Line driver:DC5V±5%	
Current consumption	70mA or less (under no load)	100mA or less (under no load)	
Detection system	Incremental	Incremental	
Output pulse number (Standard) [Pulse number/rotation]	40 250 500 50 300 512 60 360 600 100 400 200 450	720 2,500(*) 800 3,600(*) 900 4,096(*) 1,000 4,500(*) 1,024 5,000(*) 1,200 6,000(*) 1,500 8,192(*) 1,800 9,000(*) 2,000(*) 10,000(*) 2,048(*) 10,800(*)	
		EX 10,000x2 (20,000) 10,000x4 (40,000) 10,000x5 (50,000) 10,000x8 (80,000) 10,000x10 (100,000) 10,000x16 (160,000) 10,000x20 (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) Voltage-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)	14.7N (1.5kgf)
	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 AWG28 Insulated shield cable (length 1m)	Outside diameter φ4.2 5-core vinyl wire AWG28 Insulated shield cable (length 1m)	
Mass	140g	140g	

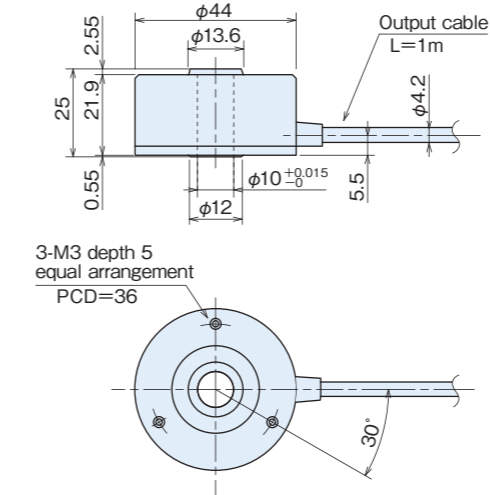
*Handled by built-in multiplier circuit

Outside dimensions

MES-30-P

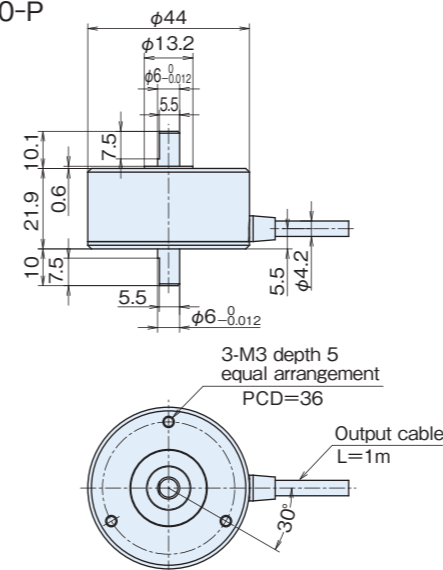


MEH-30-P



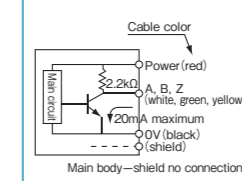
We have the hollow shaft of bore diameter φ10mm (standard) as well as φ8mm and 12mm.

MED-30-P

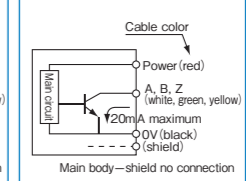


Output circuit diagram

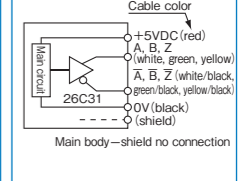
Voltage output (standard type)



Open collector output (option)



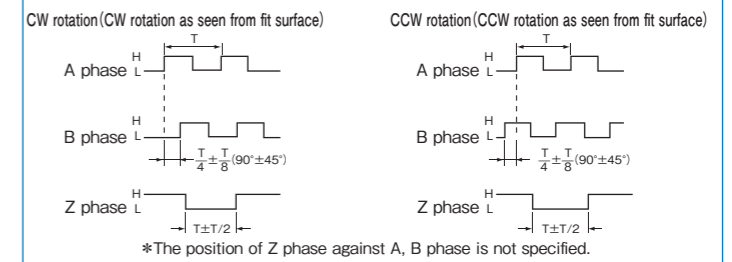
Line driver output (option)



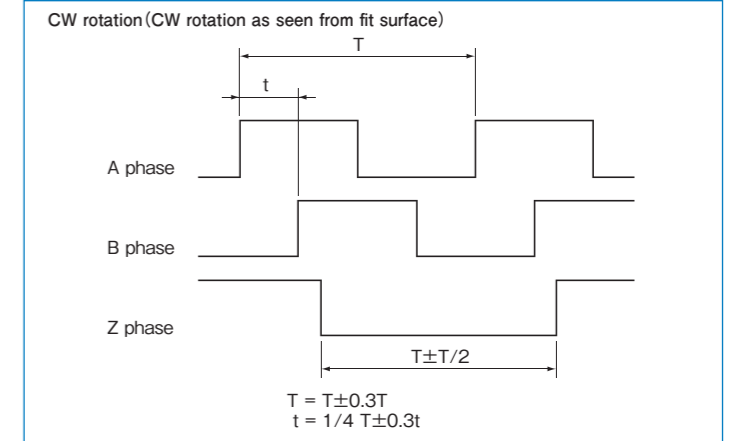
Note: If the transmission distance is long, it should be so considered that the specified voltage occurs at the input portion of the encoder cable end.

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

Output waveform (Square wave)



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



Spring flange MEH-30 (Option)

