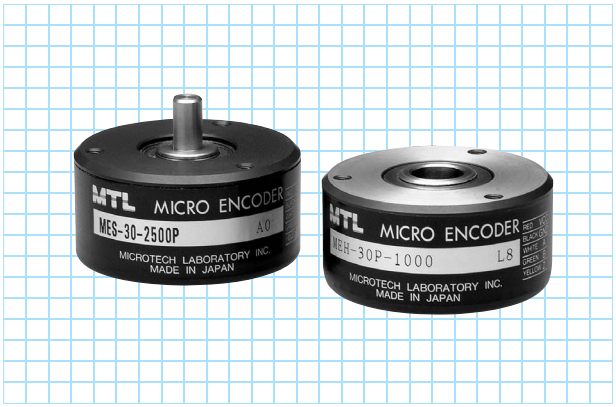
ME-30-P series

[Square Wave/Incremental]



Specifications

Type name ME□-30-□P□

Item

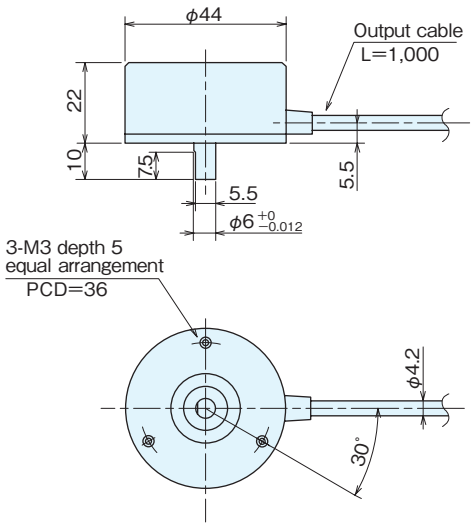
- Shaft shape: ●S=single shaft ●H=hollow shaft ●D=double shaft
- Pulse number
- Output circuit: ●No entry=voltage output ●C=open collector output ●C4=open collector output DC24V ●E=line driver output ●S=sine wave output ●ST□(2·4·5·8·10·16·20)

Item		Square wave		Built-in multiplication circuit(×2·×4·×5·×8·×10·×16·×20)
Supply voltage		Voltage／Open collector:DC5V～12V+10% Open collector C4:DC24V±10% Line driver:DC5V±5%		Voltage:DC5V−5%～12V+10% Open collector:DC5V−5%～24V+10% Line driver:DC5V±5%
Current consumption		70mA or less (under no load)		100mA or less (under no load)
Detection system		Incremental		Incremental
Output	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 4,500(※) 1,000 5,000(※) 1,024 6,000(※) 1,200 8,192(※) 1,500 9,000(※) 1,800 10,000(※) 2,000 10,800(※) 2,048	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	Output phase	A, B, Z phase		A, B, Z phase
Output	Output form	Square wave		Square wave
Output	Output capacity	Sink current:20mA Residual voltage:0.5V or less (at 10mA)		—
Output	Maximum response frequency (response pulse number)	100kHz		Line driver output:50kHz×(by multiplication) Voltage·Open collector output:100kHz
Output	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
Output	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)	14.7N(1.5kgf)
Allowable load of shaft (electrical)	Thrust	9.8N(1kgf)	4.9N(0.5kgf)	4.9N(0.5kgf)
Maximum allowable revolutions (mechanical)		6,000r/min		6,000r/min
Working ambient temperature/ humidity		−10℃～70℃ RH35%～90% no dewing		−10℃～70℃ 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		140g		140g

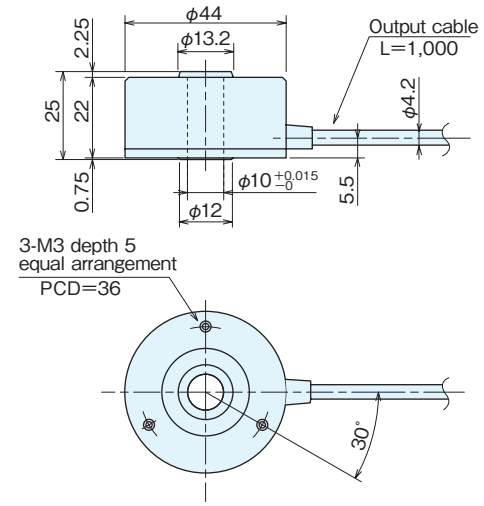
※Handled by built-in multiplier circuit

Outside dimensions

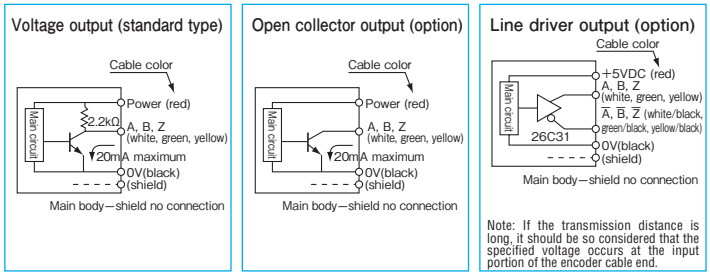
MES-30-P



MEH-30-P

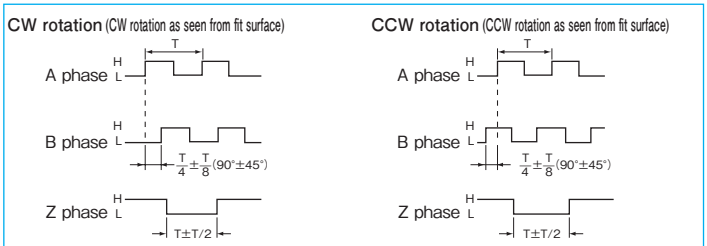


Output circuit diagram



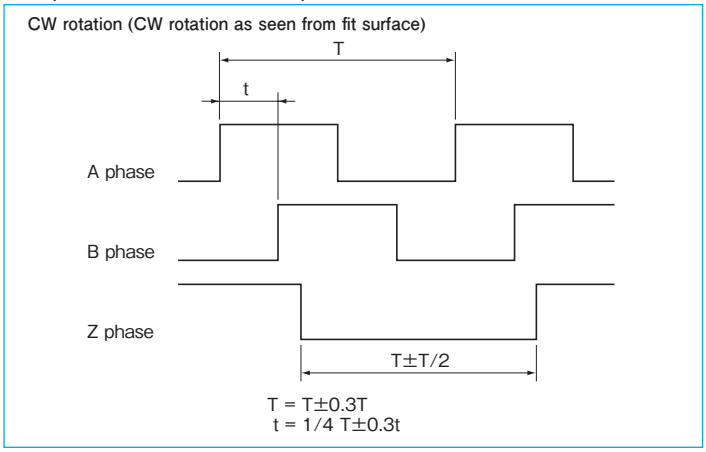
A capacitor (0.1μF) is connected between 0V and FG (frame ground).

Output waveform (Square wave)



*The position of Z phase against A, B phase is not specified.

Output waveform／Built-in multiplication circuit (×2·×4·×5·×8·×10·×16·×20)



T = T±0.3T
t = 1/4 T±0.3t

Spring flange MEH-30 (Option)