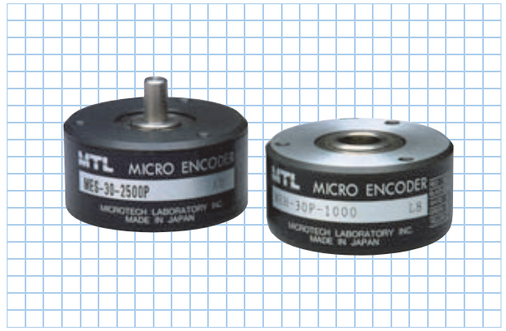
ME-30-P series

[Square Wave/Incremental]



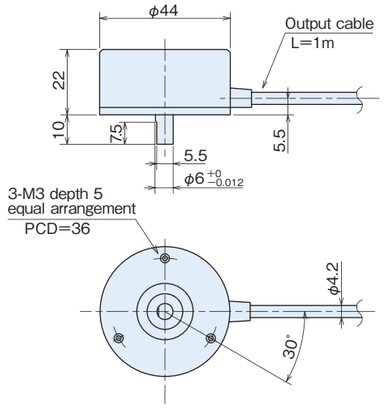
Specifications

Item				
Type name	ME□-30-□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(×2·×4·×5·×8·×10·×16·×20)
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: 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 10,000×2(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)
	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/s²(about 50G) 3 times each in X, Y, and Z directions			Durability 500m/s²(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

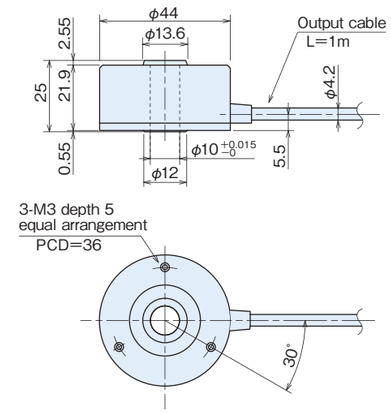
*Handled by built-in multiplier circuit

Outside dimensions

MES-30-P

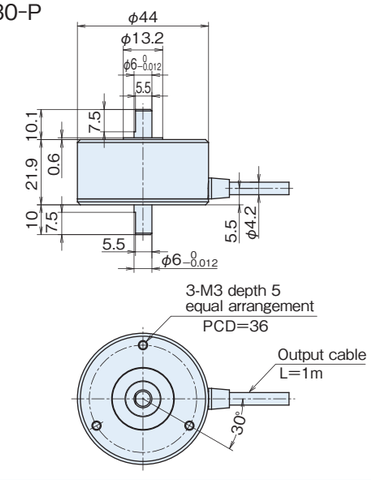


MEH-30-P

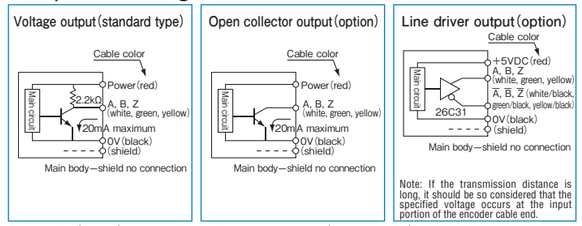


We have the hollow shaft of bore diameter ϕ10mm (standard) as well as ϕ8mm and 12mm.

MED-30-P

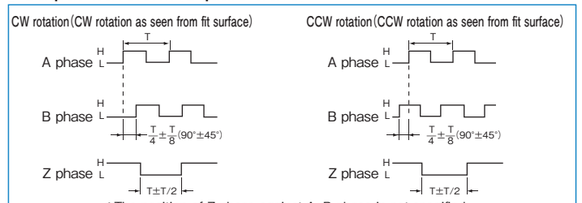


Output circuit diagram



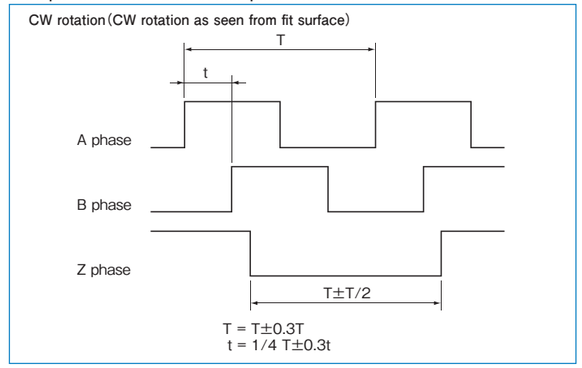
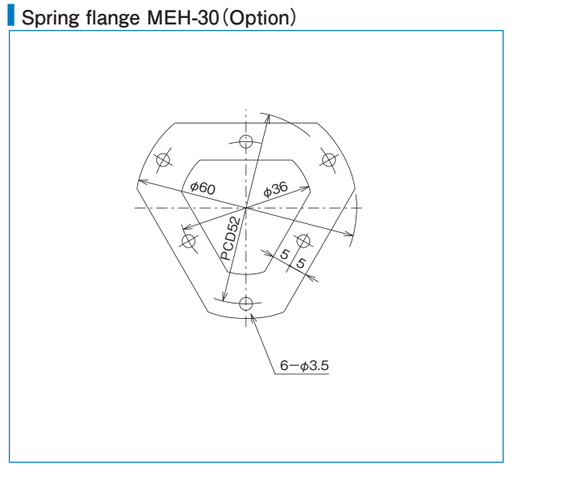
A capacitor(0.1μF)is connected between 0V and FG(frame ground).

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)



Spring flange MEH-30(Option)