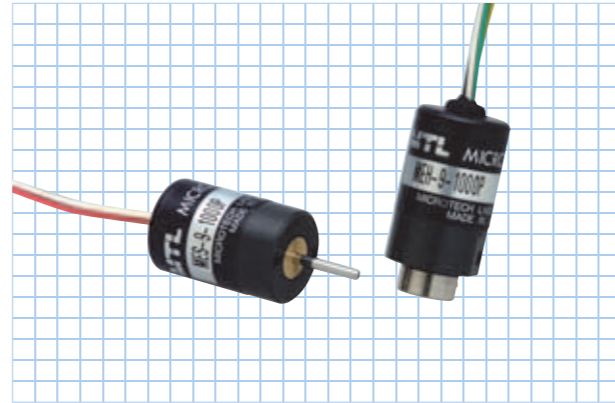


# ME-9-P series

[Square Wave/Incremental]



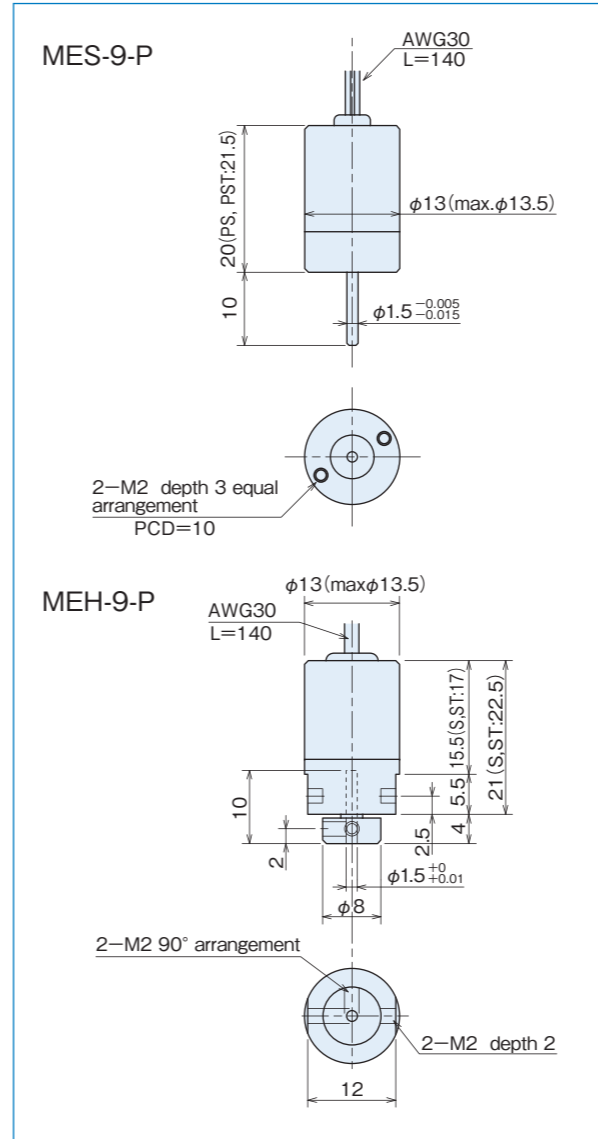
## Specifications

Item	Type name		
	ME <input type="checkbox"/> -9- <input type="checkbox"/> P <input type="checkbox"/>		
	Shaft shape ●S=single shaft ●H=hollow shaft	Pulse number ●Noentry=Voltage output ●C=open collector output ●E=line driver output	Output circuit ●ST□(2-4-8-16)
	<b>Square wave</b>		<b>Built-in multiplication circuit (x2·x4·x8·x16)</b>
Supply voltage	DC5V ±10%		DC5V ±5%
Current consumption	40mA or less (under no load)		50mA or less (under no load)
Detection system	Incremental		Incremental
Output pulse number (Standard)	32 100 200 256	300 360 500	900(*) 1,000(*) 1,024
[Pulse number/rotation]			
Output phase	A, B, Z phase (Z="H")		A, B, Z phase
Output form	Square wave		Square wave
Output capacity	Sink current:20mA Residual voltage:0.5V or less (at 10mA) Open collector output:Load voltage DC13.2V max		Sink current:20mA max. Residual voltage:0.5V or less (at 10mA) Open collector output:Load voltage DC13.2V max
Maximum response frequency (response pulse number)	100kHz		Open collector output:100kHz Line driver output:50kHz×(by multiplication)
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 140mm or less)		1μs or less (output cable 140mm or less)
Allowable load of shaft (electrical)	Radial	1.9N (200gf)	0.98N (100gf)
	Thrust	1.9N (200gf)	0.98N (100gf)
Maximum allowable revolutions (mechanical)	6,000r/min		6,000r/min
Working ambient temperature/humidity	0°C~60°C RH35%~90% no dewing		0°C~60°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 <sup>2</sup> (about 50G) 3 times each in X, Y, and Z directions		Durability 500m/s <sup>2</sup> (about 50G) 3 times each in X, Y, and Z directions
Cable	Voltage-Open collector:Vinyl wire (AWG30) Cable length 140mm Line driver-Vinyl wire (AWG32) Cable length 330		Open collector:Vinyl wire (AWG30) Cable length 140mm Line driver-Vinyl wire (AWG32) Cable length 330
Mass	10g		20g

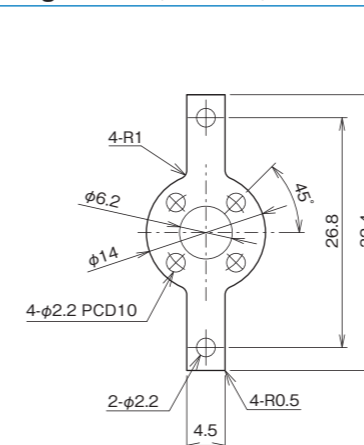
\*Handled by built-in multiplier circuit

Note: Types with a built-in internal multiplier circuit do not support voltage output

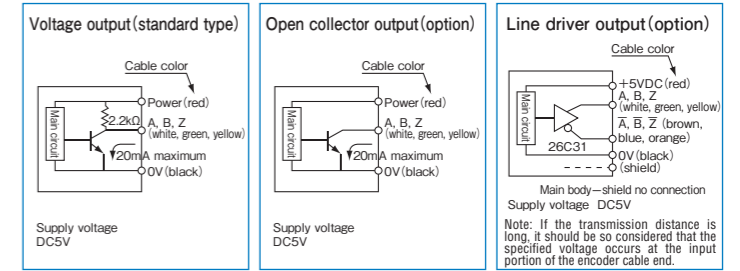
## Outside dimensions



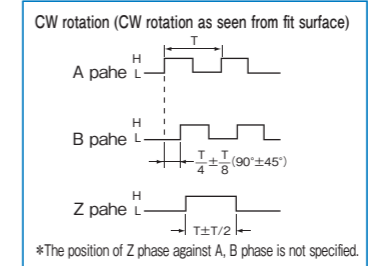
## Spring flange MEH-9 (Included)



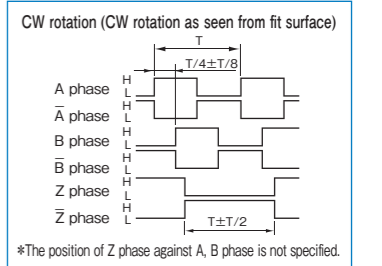
## Output circuit diagram (Square wave)



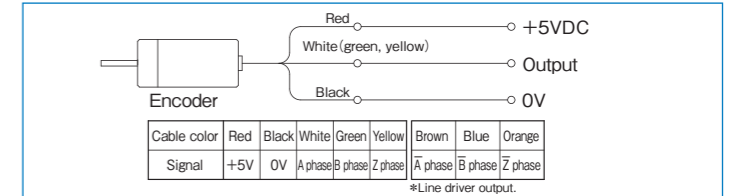
## Output waveform (Square wave) Voltage/Open collector



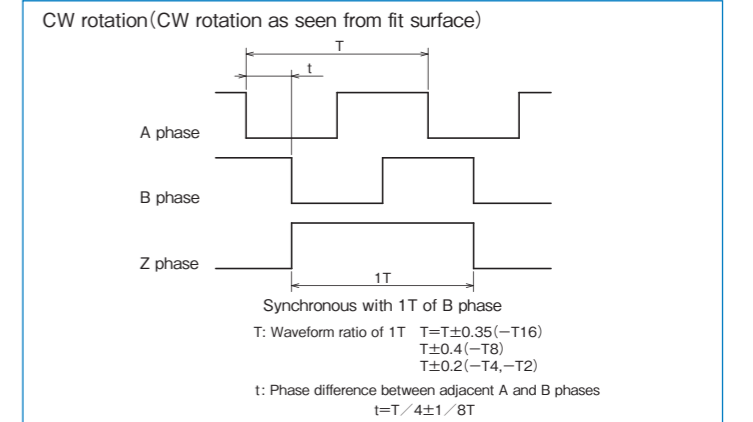
## Output waveform (Square wave) Line driver



## Output connection diagram / Built-in multiplication circuit (x2·x4·x8·x16)



## Output waveform Open collector output / Built-in multiplication circuit (x2·x4·x8·x16)



## Output waveform Line driver output / Built-in multiplication circuit (x2·x4·x8·x16)

