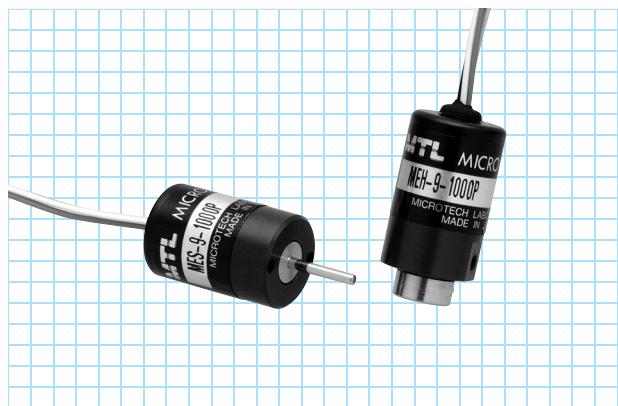


ME-9-P series

[Square Wave/Incremental]



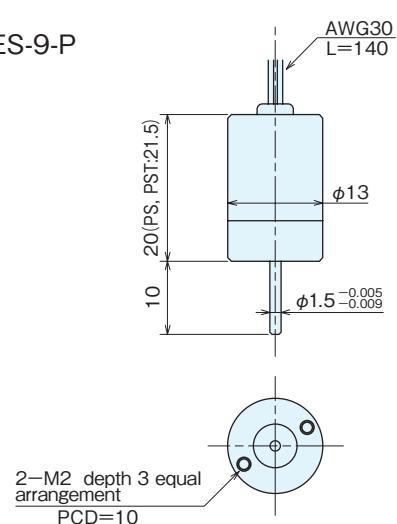
Specifications

Type name	ME [] -9-[] P []		
Item	Shaft shape ●S=single shaft ●H=hollow shaft	Pulse number	Output circuit ●Noentry=Voltage output ●C=open collector output ●ST□(2·4·8·16) ●E=line driver output
Supply voltage		DC5V ±10%	
Current consumption		40mA or less (under no load)	
Detection system		Incremental	
Output	Output pulse number (Standard) (Pulse number/rotation)	32 100 200 256	300 360 500
			900(※) 1,000(※) 1,024
	Output phase	A, B, Z phase (Z="H")	
	Output form	Square wave	
	Output capacity	Sink current:20mA Residual voltage:0.5V or less (at 10mA) Open collector output:Load voltage DC13.2V max	
	Maximum response frequency (response pulse number)	100kHz	
	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 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	
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		Voltage·Open collector:Vinyl wire(AWG30) Cable length 140mm Line driver·Vinyl wire(AWG32) Cable length 330±10mm	
Mass		10g	

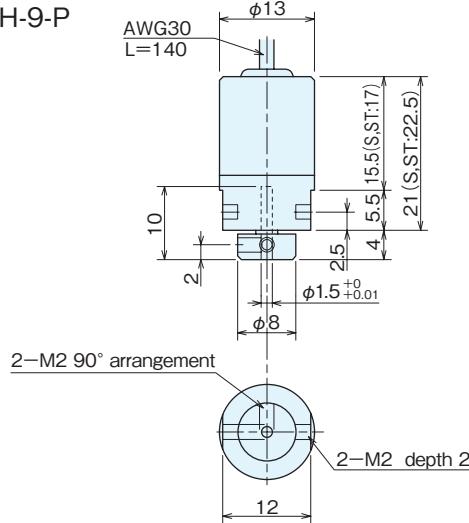
※Handled by built-in multiplier circuit

Outside dimensions

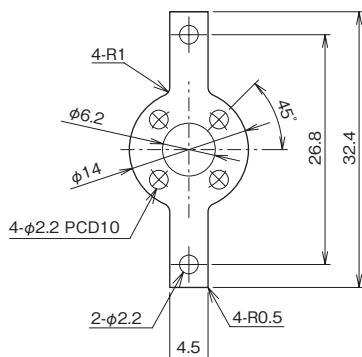
MES-9-P



MEH-9-P

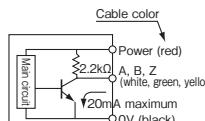


Spring flange MEH-9 (Included)



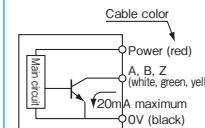
Output circuit diagram (Square wave)

Voltage output (standard type)



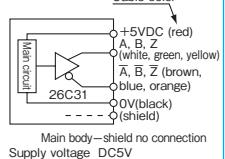
Supply voltage DC5V

Open collector output (option)



Supply voltage DC5V

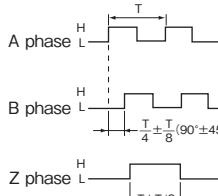
Line driver output (option)



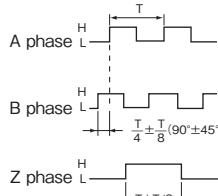
Note: If the transmission distance is long, it should be so considered that the specified voltage occurs at the input portion of the encoder cable end.

Output waveform (Square wave)

CW rotation (CW rotation as seen from fit surface)

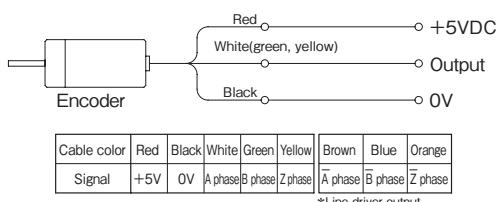


CCW rotation (CCW rotation as seen from fit surface)



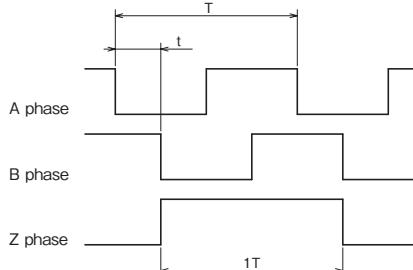
*The position of Z phase against A, B phase is not specified.

Output connection diagram / Built-in multiplication circuit ($\times 2 \times 4 \times 8 \times 16$)



Output waveform / Built-in multiplication circuit ($\times 2 \times 4 \times 8 \times 16$)

CW rotation (CW rotation as seen from fit surface)



T: Waveform ratio of 1T
 $T=T \pm 0.35 (-T16)$
 $T \pm 0.4 (-T8)$
 $T \pm 0.2 (-T4, -T2)$

t: Phase difference between adjacent A and B phases
 $t=T \pm 1/8T$