

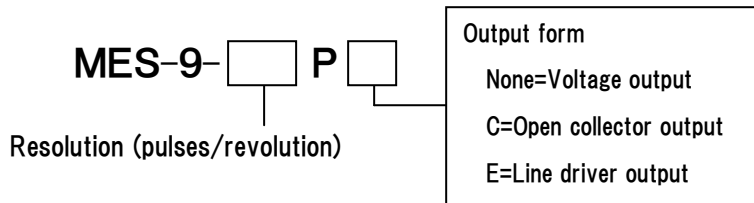
Rotary Encoder

MES-9-P Series

13-mm-dia. Incremental

Ultra-compact Optical Rotary Encoder

Ordering Codes

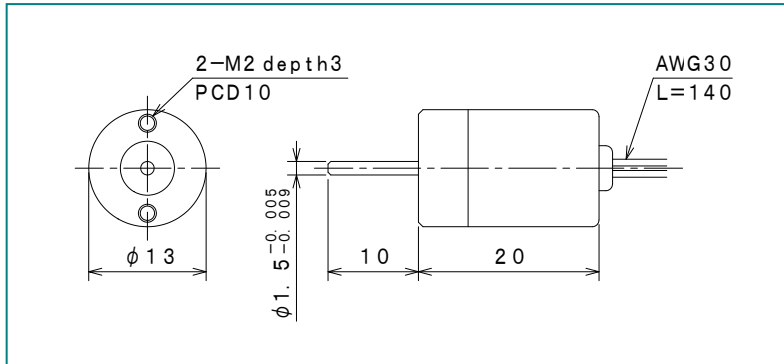


Specifications

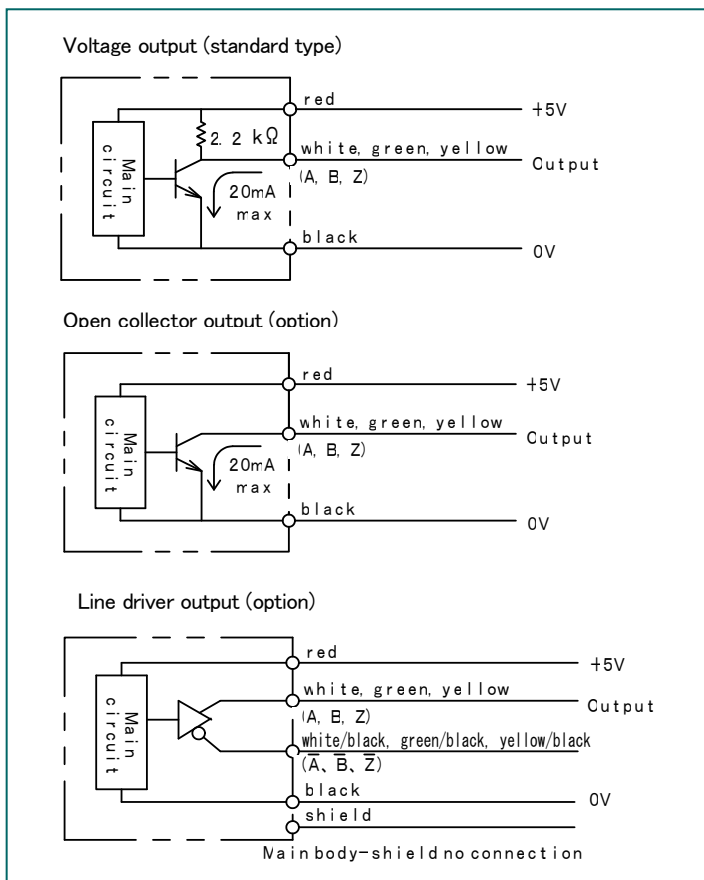
Item	Rating		
Supply voltage	5 VDC \pm 10%		
Consumption current	40 mA or less (under no load)		
Detection system	Incremental		
Resolution (pulses/revolution)	32, 100, 200, 256, 300, 360, 500, 900, 1000, 1024		
Output phases	Phases A, B, and Z (Z="H")		
Output phase difference	A,B phase difference $90^\circ \pm 45^\circ$ (T/4 \pm T/8) Z phase T \pm T/2 (see Output Waveform)		
Output form	Square wave		
Output capacity	Sink current: 20 mA Residual voltage: 0.5V or less (at 10 mA)		
Maximum response frequency	100 kHz		
Waveform rise/fall time	2 μ s or less (output cable 140 mm or less)		
Starting torque	1×10^{-3} N·m (10 gf·cm) or less		
Allowable load of shaft (electrical)	Radial	1.9 N (200 gf)	0.98 N (100 gf)
	Thrust	1.9 N (200 gf)	0.98 N (100 gf)
Maximum allowable number of revolutions (mechanical)	6000 r/min		
Operating ambient temperature/humidity	0°C to 60°C RH 35% to 90% no dewing		
Storage ambient temperature	-20°C to 80°C		
Vibration resistance	Durability 55 Hz, double amplitude 1.5mm 2 hours each in X, Y, and Z directions		
Impact resistance	Durability 500 m/s ² (about 50G) 3 times each in X, Y, and Z directions		
Protective structure	IP50		
Cable	Vinyl wire (AWG30) Cable length 140 mm		
Mass	10 g		

MES-9 Series

Outside dimensions



Output circuit diagram



Output waveform

