

EV38 Series



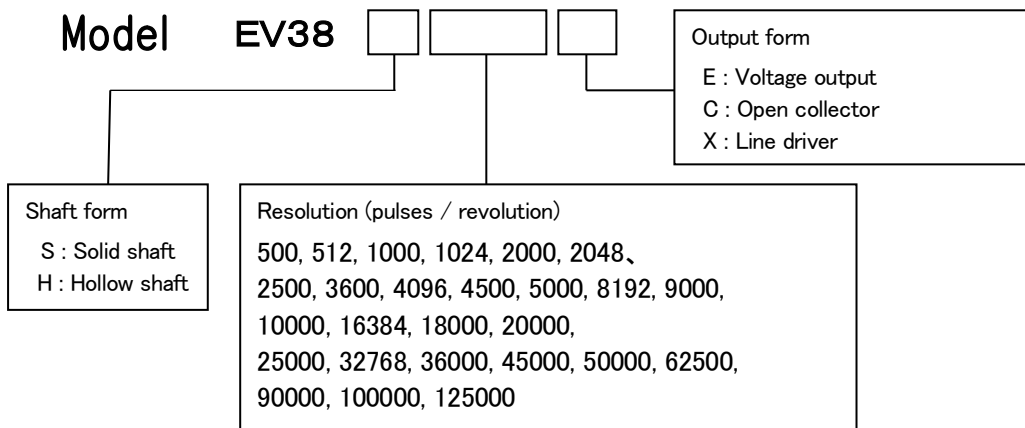
External diameter of **38** mm, depth of **22** mm

Max. **125000** ppr

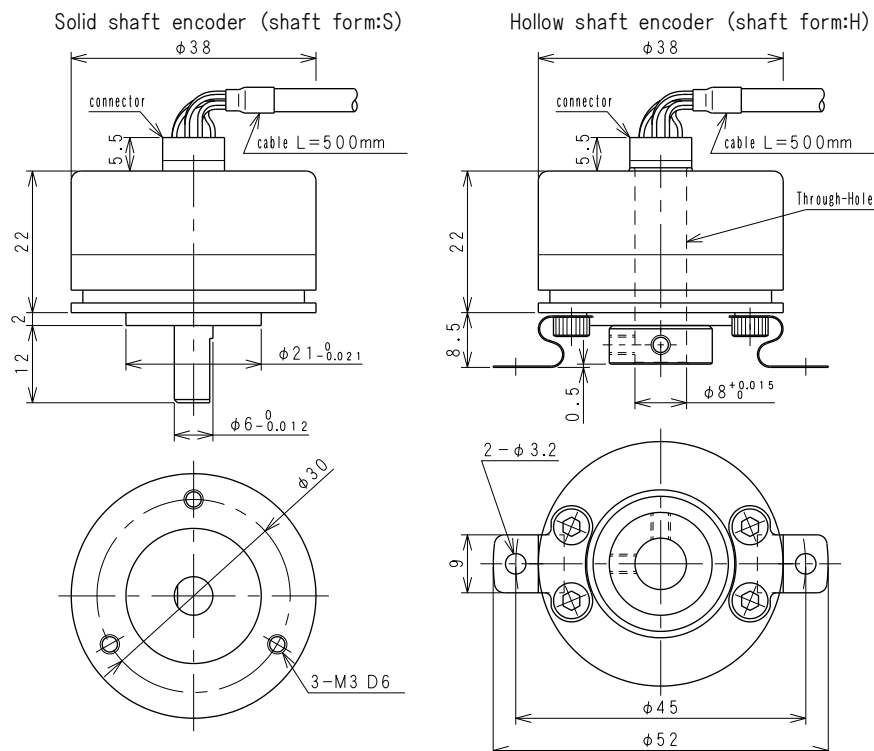
2 types of shaft form Solid shaft and Hollow shaft

Incremental

A, B, and Z phases



OD

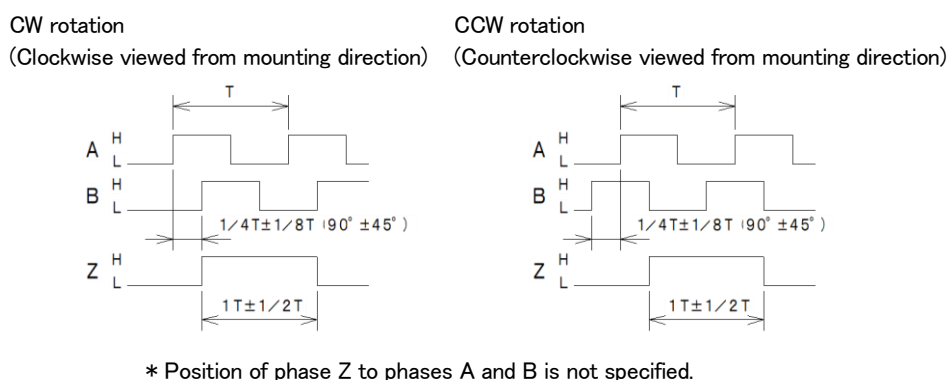


Input and output specifications

Item	Rating		
Supply voltage	Voltage output Open collector Line driver	DC5V to 12V±10% DC5V to 24V±10% DC5V to 24V±10%	
Consumption current	120 mA or less (under no load)		
Detection system	Incremental		
Resolution (pulses/rotation)	500, 512, 1000, 1024, 2000, 2048 2500, 3600, 4096, 4500, 5000, 8192, 9000, 10000, 16384, 18000, 20000, 25000, 32768, 36000, 45000, 50000, 62500, 90000, 100000, 125000		
Output form	Square wave	Voltage output (E) NPN Open collector (C) Line driver (X)	
Output phases	Phases A, B, and Z		
Output phase difference	A, B phase difference 90° ±45° (T/4±T/8) Z phase T ±T/2 (see Output Waveform)		
Maximum response frequency	100 kHz(Voltage, Open)* 2 MHz(Line driver)		
Starting torque	3×10 ⁻³ N•m(30gf•cm) or less		
Allowable load of shaft (electrical)	Radial Thrust	5000 ppr or less	8192 ppr or more
		30N	20N
		20N	10N
Maximum allowable number of revolutions (mechanical)	6000 r/min		
Operating ambient temperature/humidity	0℃ to 70℃ RH 35% to 90% no dewing		
Storage ambient temperature	-20℃ to 80℃		
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		
Protective structure	IP50		
Mass	90g		

*Using supply voltage 5V, pull-up resistor 2 k Ω and standard cable.

Output waveform



Connection

Color	Voltage output Open collector output	Line driver output
Brown	Power supply	Power supply
Blue	OV	OV
Black	Phase A+	Phase A+
Red	—	Phase A-
White	Phase B+	Phase B+
Green	—	Phase B-
Orange	Phase Z+	Phase Z+
Yellow	—	Phase Z-

Cable

3.6-dia. heat-resistant shielded vinyl cable
(length 500 mm)

Please note that specifications of this product are subject to change without notice for improvement.