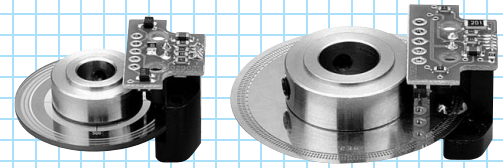


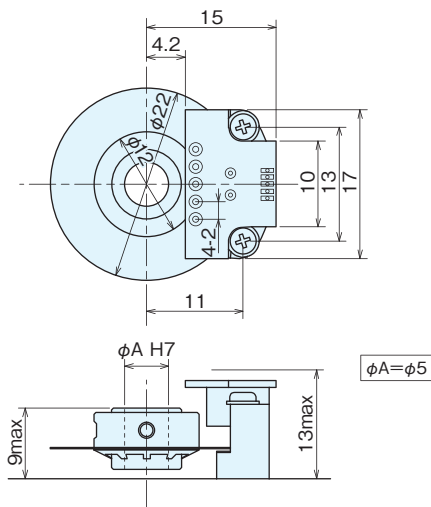
MG series

[Module Kit]

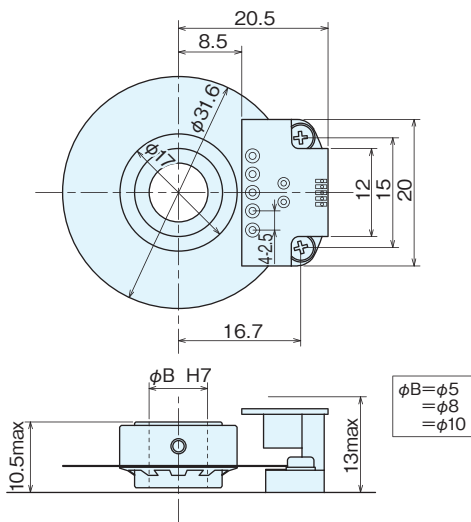


Outside dimensions

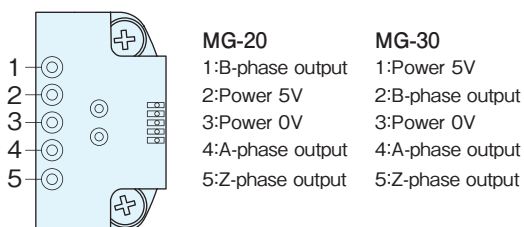
MG-20



MG-30



Output pin position encoder



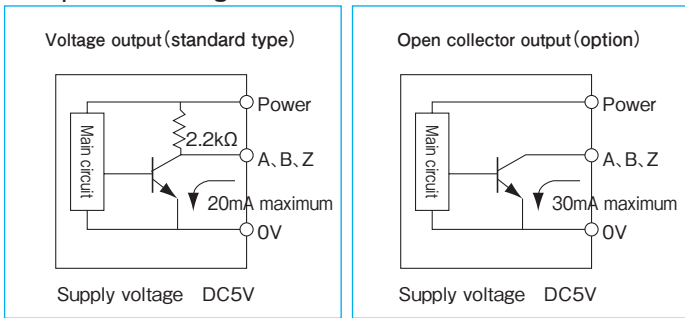
Specifications

Item	Type name	MG-20-□□	MG-30-□□				
	Pulse number	□□	□□				
	Output circuit	□□	□□				
	●No entry=voltage output	●	●				
	●C=open collector output	●	●				
Supply voltage	DC5V±10%						
Current consumption	30mA or less (under no load)						
Detection system	Incremental						
Output	Output pulse number (Standard) [Pulse number/rotation]	100	500	100	600	2,000	
		200	512	200	800		
		250	600	250	1,000		
		256	800	300	1,024		
		300	1,000	360	1,200		
		360	1,024	400	1,500		
		400	1,200	500	1,800		
Output phase	A, B, Z phase (Z=H)						
Output form	Square Wave						
Output capacity	Sink current:30mA Residual voltage:0.5V or less (at 10mA)						
Maximum response frequency (response pulse number)	100kHz						
Output phase difference	A, B phase difference 90° (T/4±T/8) Z phase T±T/2						
Waveform rise/fall time	2μs or less						
Maximum allowable revolutions (mechanical)	10,000r/min (such that the maximum response frequency is not exceeded)						
Working ambient temperature/ humidity	-10°C~70°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						
I/O terminals	PCB through hole terminals (refer to outside dimensions diagram)						
Mass	10g or less		20g or less				

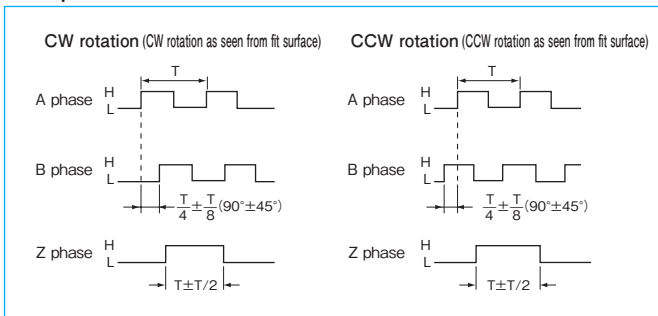
Allowable change amount of fitting shaft

Encoder	Direction	100~200	250~600	800~1,200
MG-20	Pulse number	100~200	250~600	800~1,200
	Allowable eccentricity	Radial	±0.05mm	±0.02mm
MG-30	Pulse number	100~300	400~1,024	1,200~2,000
	Allowable eccentricity	Thrust	±0.2mm	±0.1mm

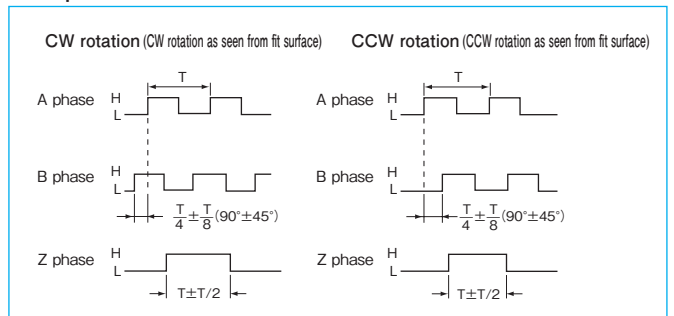
Output circuit diagram



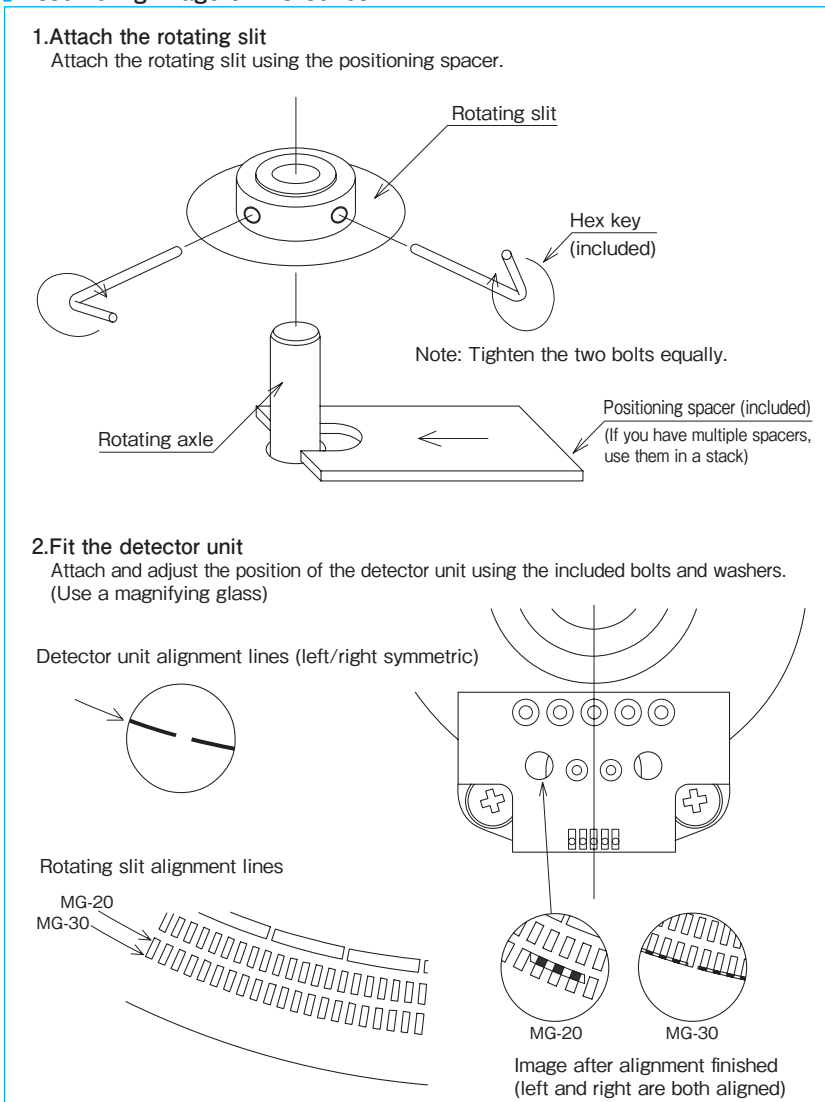
Output waveforms MG-20



Output waveforms MG-30



Assembling image of MG series



Fitting shaft dimensions

