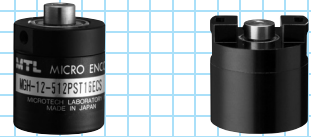


# MGH series

[Square Wave/Incremental]

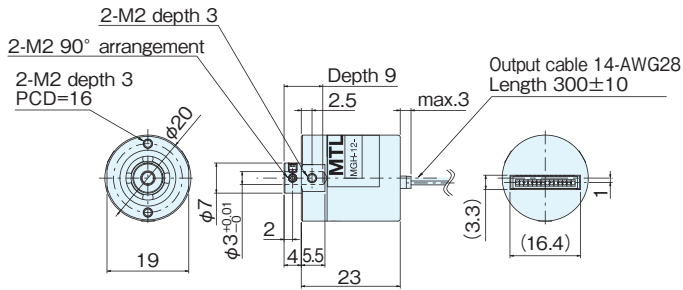
NEW



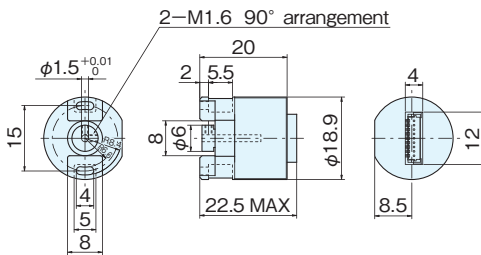
MGH-12, MGH-14

## Outside dimensions

MGH-12



MGH-14



## Specifications

Type name	MGH-12-512ST □ ECS (2-4-8-16)	MGH-14-□-C □ Pulse number CS signal ●No entry=nil ●CS=available
Supply voltage	DC+5V±10%	
Current consumption	150mA or less (under no load)	40mA or less (under no load)
Detection system	Incremental	
Output Output pulse number (Standard) [Pulse number/rotation]	512×2	100
	512×4	128
	512×8	200
	512×16	250
		256 300
Output phase	A, B, Z, U, V, W phase A, B, Z, U, V, W phase	A, B, Z, U, V, W phase
Output form	Square wave Line driver output	Square wave Open collector output
Output capacity	V <sub>H</sub> =2.5V or more V <sub>L</sub> =0.5V or less I <sub>O</sub> =±20mA or less	Sink current 20mA or less, residual voltage 0.5V or less (at 10mA)
Maximum response frequency (response pulse number)	50kHz×(by multiplication)	100kHz
Starting torque	1×10 <sup>-3</sup> N·m(10gf·cm) or less	—
Allowable load of shaft(electrical)	Radial	1.9N(200gf)
	Thrust	1.9N(200gf)
Output phase difference	A, B phase difference 90°±45° (T/4±T/8) Z phase T±T/2 With CS signal (U, V, W) 4 poles, 60° phase difference 3 signals	
Waveform rise/fall time	1 μs or less	2 μs or less
Maximum allowable revolutions (mechanical)	6,000r/min	
Working ambient temperature/ humidity	-10°C~70°C RH35%~90% no dewing	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 <sup>2</sup> (about 50G) 3 times each in X, Y, and Z directions	
Cable	Vinyl wire 14-AWG30 length 300mm±10mm	Connector
Mass	50g (include a cable)	10g

## Allowable change amount of fitting shaft

MGH-14	Pulse number	100~200	250~300	—
Allowable eccentricity	Radial	±0.02mm		±0.01mm
	Thrust	±0.1mm	±0.05mm	±0.02mm