

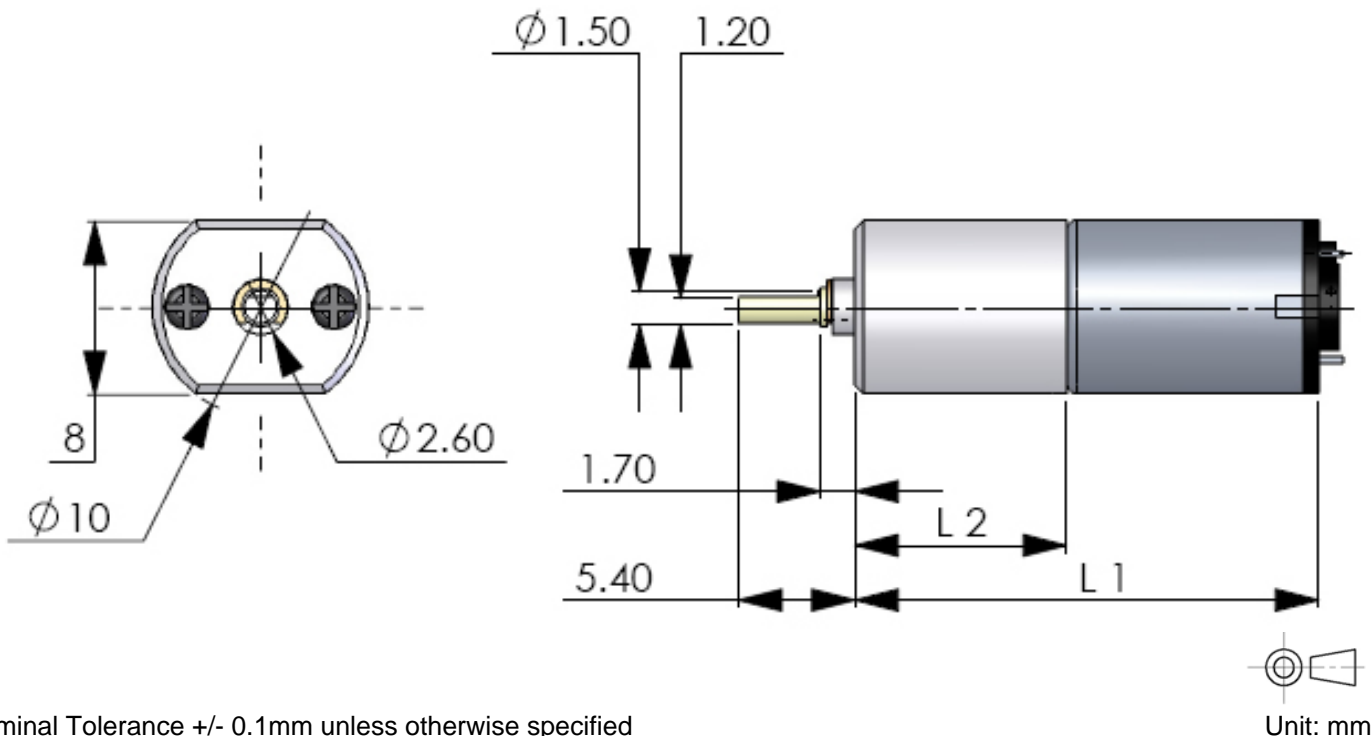
## 8mm x $\phi$ 10mm Miniature Planetary Gear Motors (D Shape Metal Shaft)

### GH810 SERIES

#### Mechanical Details And Specifications

Part no.	GH8102S-B	GH8102SL-B	GH8103S-B	GH8103SL-B	
Operating range (Volt)	2.5V~5V	2.5V~5V	2.5V~5V	2.5V~5V	Motor Spec
Nominal Voltage	3V	3V	3V	3V	
Speed (approx.)	16000 RPM	7000 RPM	16000 RPM	7000 RPM	
No. of gear stages	2	2	3	3	Gearhead Spec
Gear Ratio	1:26.45	1:26.45	1:136.02	1:136.02	
Voltage	3V	3V	3V	3V	No Load
Speed (approx.)	500 rpm	250 rpm	100rpm	50rpm	
Current(approx.)	80mA	45mA	90mA	50mA	
Maximum Torque (approx.)	80gcm	80gcm	250gcm	250gcm	Max. Output Torque
Length without motor L2	9.5mm	9.5mm	11.4mm	11.4mm	Physical
Length with motor L1	20.6mm	24.6mm	22.5mm	26.5mm	
Shaft Diameter	1.5mm	1.5mm	1.5mm	1.5mm	
Weight	3.8g	5.0g	3.9g	5.1g	
Gearhead Material	Plastic				
D Shape Shaft Material	Bronze				

#### Gearhead Layout



Nominal Tolerance +/- 0.1mm unless otherwise specified