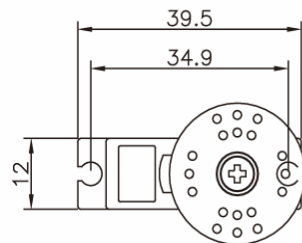


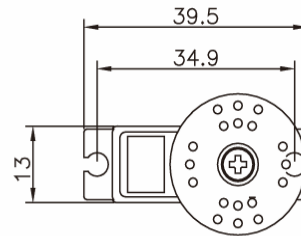
## HYPERION ATLAS - PROGRAMMABLE DIGITAL SERVOS

Hyperion Part Number >>>	HP-DS12ACP	HP-DS12HCP	HP-DS12GCP	HP-DS13ACB	HP-DS13TCB	HP-DS13TMB	HP-DS20UMD	HP-DS20FMD	HP-DS20HMD	HP-DS20GMD
Weight	16.9g	17.3g		17.9g		19.2g	53g		49g	
Speed sec/60 deg 4.8v/6.0	0.16/0.13	0.13/0.10	0.08/0.06	0.16/0.13	0.20/0.16	0.20/0.16	0.23/0.18	0.17/0.13	0.15/0.11	0.07/0.05
Dynamic torque Kg/cm 4.8/6.0v	2.6/3.2	1.7/2.0	1.3/1.8	2.6/3.2	3.6/4.2	3.6/4.2	11.6/13.8	7.0/8.2	3.6/4.7	1.6/2.0
Holding torque Kg/cm 4.8v/6.0v	5.2/6.4	3.4/4.0	2.6/3.2	5.2/6.4	7.2/8.4	7.2/8.4	20.9/23.5	14.0/16.4	7.2/9.4	3.2/4.0
Dimensions mm	29.5 x 12 x 26			29.5 x 13 x 27.6			40.0 x 19.5 x 37.8			
Gear Train Primary Material	CarbonPoly			CarbonPoly		Metal	Metal			
Bearing	Plain			top ball		double ball				
Required Pulse	2.5 ~ 5 Volt Peak to Peak Square Wave									
Operating Temp	-20 to +60 Degree C									
Current Drain (4.8V)	6.0mA/idle, 150mA noload		6.0mA / 170mA	6.0mA/idle, 150mA noload operating			7.0mA/idle, 230mA noload operating		7.0mA/170mA	7.0mA/200mA
Current Drain (6.0V)	6.0mA/idle, 170mA noload		6.0mA / 200mA	6.0mA/idle, 170mA noload operating			7.0mA/idle, 300mA noload operating		7.0mA/200mA	7.0mA/250mA
Stall Current (4.8V)	680mA		750mA	680mA			1500mA		830mA	
Stall Current (6.0V)	800mA		900mA	800mA			2000mA		1100mA	
Minimum Input Voltage	3.5V under load									
Maximum Input Voltage	Unloaded input voltage should never exceed 7.8V, loaded input voltage max 6.25V									
Drive	Direct DIGITAL			Direct DIGITAL			Direct DIGITAL			
Connector Wire Gauge	25AWG			25AWG			22AWG			
Connector Wire Strand Count	30EA			30EA			60EA			
<b>PROGRAMMABLE PARAMETERS via PC with HP-AT-PRGUSB 3pin Adapter (\$17.95) or EMETER v2 (est Dec 2007, price tba)</b>										
Rotation in Degrees	Adjustable 30 to 140 degrees total min/max (i.e. 15 to 70 degrees each way), 90 degree default (45 each way)									
Reverse	Clockwise/CounterClockwise, Clockwise default									
Speed	1% to 100% of Rated Speed (100% default)									
Servo Center	+/- 127uS (0 default, center at 1500uS)									
DeadBand Width	0 uS to 16 uS (2 uS default)									
Compatibility	Programmer allows selection of common Transmitter brands, to insure compatibility and default centering									

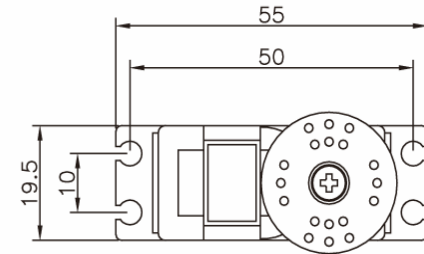
Normal Torque and Speed **A**  
 HighTorque/Speed Blend, Mod Current **F**  
 High Torque/Less Speed **T**  
 UltraHigh Torque/Low Speed **U**  
 Very High Speed/Low Currrent **H**  
 High Speed/Med Torque/Low Current **S**  
 UltraHigh Speed for Heli Gyro **G**  
 Carbon+Metal Gears **C**  
 Metal Gear **M**  
 Plain Bearings **P**  
 Top Ball Bearing **B**  
 Twin Ball Bearing **D**



**DS-12 SERIES**



**DS-13 SERIES**



**DS-20 SERIES**

