

HYPERION ATLAS - PROGRAMMABLE DIGITAL SERVOS

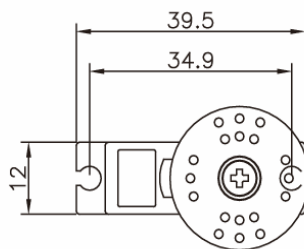
Hyperion Part Number >>>	HP-DS12ACP	HP-DS12HCP	HP-DS12SCP	HP-DS13ACB	HP-DS13TCB	HP-DS13TMB	HP-DS20UMD	HP-DS20FMD	HP-DS20SMD	HP-DS20HMD
Weight	16.9g	17.3g	17.3g	17.9g	17.9g	19.2g	53g	53g	49g	49g
Dimensions mm	29.5 x 12 x 26	29.5 x 12 x 26	29.5 x 12 x 26	29.5 x 12 x 26	29.5 x 13 x 27.6	29.5 x 13 x 27.6	40.0 x 19.5 x 37.8	40.0 x 19.5 x 37.8	40.0 x 19.5 x 37.8	40.0 x 19.5 x 37.8
Speed sec/60 deg 4.8v/6.0	0.16/0.13	0.13/0.10	0.15/0.12	0.16/0.13	0.20/0.16	0.20/0.16	0.23/0.18	0.17/0.13	0.19/0.15	0.15/0.11
Gear Train Primary Material	CarbonPoly	CarbonPoly	CarbonPoly	CarbonPoly	CarbonPoly	Metal	Metal	Metal	Metal	Metal
Bearing	Plain	Plain	Plain	top ball	top ball	top ball	double ball	double ball	double ball	double ball
Dynamic torque Kg/cm 4.8/6.0v	2.6/3.2	1.7/2.0	2.0/2.4	2.6/3.2	3.6/4.2	3.6/4.2	11.6/13.8	7.0/8.2	4.9/6.3	3.6/4.7
Holding torque Kg/cm 4.8v/6.0v	5.2/6.4	3.4/4.0	4.0/4.8	5.2/6.4	7.2/8.4	7.2/8.4	20.9/23.5	14.0/16.4	9.8/12.6	7.2/9.4
Required Pulse	2.5 ~ 5 Volt Peak to Peak Square Wave									
Operating Temp	-20 to +60 Degree C									
Current Drain (4.8V)	7.0mA/idle, 150mA noload operating			7.0mA/idle, 150mA noload operating			7.0mA/idle, 230mA noload operating		7.0mA/idle, 170mA noload operating	
Current Drain (6.0V)	7.0mA/idle, 170mA noload operating			7.0mA/idle, 170mA noload operating			7.0mA/idle, 300mA noload operating		7.0mA/idle, 200mA noload operating	
Stall Current (4.8V)	680mA			680mA			1500mA		830mA	
Stall Current (6.0V)	800mA			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	Direct DIGITAL	Direct DIGITAL	Direct DIGITAL	Direct DIGITAL	Direct DIGITAL	Direct DIGITAL	Direct DIGITAL
Connector Wire Gauge	25AWG	25AWG	25AWG	25AWG	25AWG	25AWG	22AWG	22AWG	22AWG	22AWG
Connector Wire Strand Count	30EA	30EA	30EA	30EA	30EA	30EA	60EA	60EA	60EA	60EA

PROGRAMMABLE PARAMETERS via HP-AT-PRGUSB 3pin Adapter or EMETER v2 (est Aug 2007)

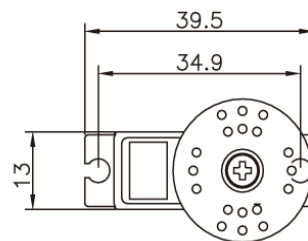
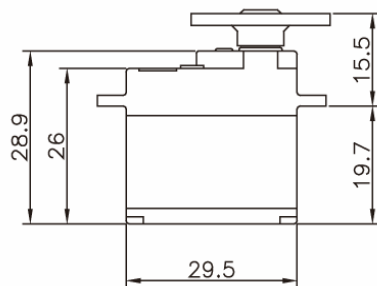
Rotation in Degrees	Adjustable 30 to 140 degrees total (i.e. 15 to 70 degrees each way), 90 degree default (45 each way)
Reverse	Clockwise/CounterClockwise, Clockwise default
Speed	1% to 100% of Rated Speed (100% default)
Servo Center	+/- 127uS (0 default, center at 1500uS)
DeadBand Width	0 uS to 16 uS (2 uS default)
Compatibility	Programmer allows selection of common Transmitter brands, to insure compatibility and default centering

Normal Torque and Speed
 HighTorque/Speed Blend, Mod Current
 High Torque/Less Speed
 UltraHigh Torque/Low Speed
 Very High Speed/Low Current
 High Speed/Med Torque/Low Current
 Carbon+Metal Gears
 Metal Gear
 Plain Bearings
 Top Ball Bearing
 Twin Ball Bearing

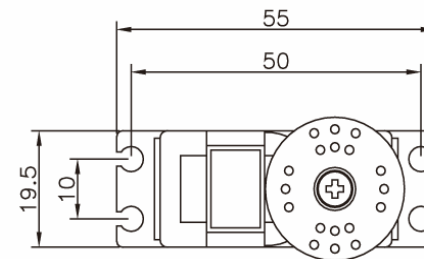
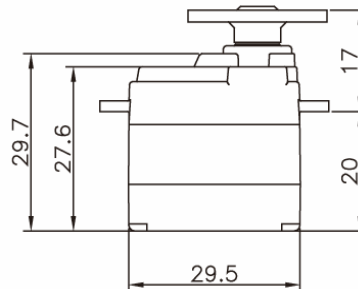
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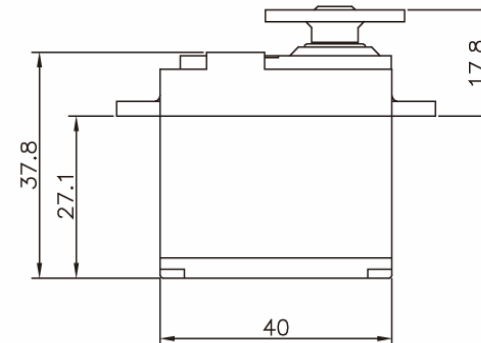
DS-12 SERIES



DS-13 SERIES



DS-20 SERIES



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