

MSA-2907-D

Digital Rotary Servo Actuator for UAV

The MSA-2907-D Servo Actuator is a high quality, reliable product, optimized for UAV requirements such as: temperature range from -40°C to + 71°C, EMI RFI shielding and high reliability. The MSA-2907-D is a servo actuator with brushless DC motor, high efficiency gearbox and electronic control system and has operating voltage of 18-32 V. It is characterized by high torque and light weight. The MSA-2907-D has an input-output 19-pin connector interface, shown in table below, with RS422/485 half-duplex communication link. The MSA-2907-D receives position command and transmits position feedback and status. Typical command rate 20mSec. It conforms to MIL-STD 461E, MIL-STD 704E, MIL-STD 454H.



Specifications

Parameters	Units	Values	Tolerances
Operating Voltage Range	VDC	18 – 32	-
Continuous Torque (at zero velocity)	Nm	16.5	-
Peak Torque (at stall)	Nm	26	-
Load Spectrum	-	at 10 Nm, 95° /sec	-
No Load Speed	deg/sec	165	-
Mechanical Stroke CW, CCW	deg	50	±0.5°
Electrical Stroke CW, CCW	deg	46	±1°
Mechanical Backlash	deg	0.3	±0.1
Bandwidth with Nominal Load and Command Amplitude ± 2.5°	Hz	8	-
Output Linearity	%	1	-
Operating Temperature	°C	-40 to +71	-
Non-Operating Temperature	°C	-54 to +85	-
Weight	Kg	1	-

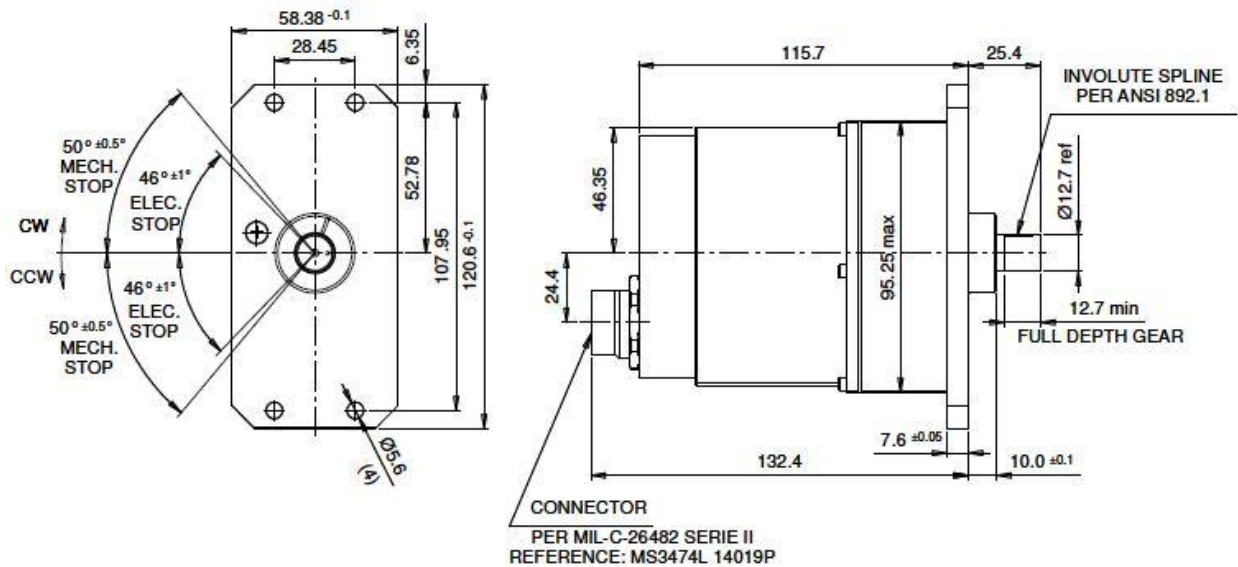
19 Pin Connector Assignments

Pin #	Function	Pin #	Function	Pin #	Function
A	PWR GND	H	RS-485/422 Rx (+)	R	POSITION OUT
B	+28 VDC	J	RS-485/422 Rx (-)	S	CHASSIS GND
C	+28 VDC	K	RESERVED	T	RESERVED
D	PWR GND	L	RESERVED	U	FLOAT (+)
E	RESERVED	M	CURRENT SIGNAL OUT	V	FLOAT (-)
F	RESERVED	N	RESERVED		
G	ANALOG GND	P	RESERVED		

(For the analog version see MSA-2907)

MSA-2907-D (continued)

Drawings



Dimensions are in mm.

For Additional Information

To learn more about the MSA-2907-D Electric Rotary Servo Actuator or to discuss any required modifications, contact MTC on **+972 4 998 7772** or email marketing@mtcind.com