

MERSA-0412

Miniature Redundant Electric Rotary Servo Actuator

The **MERSA-0412** is a high quality and accurate product. It has been optimized for UAV requirements, such as temperature range from -40°C to +71°C, EMI RFI shielding and high reliability. The **MERSA-0412** is a 28 VDC based electro-mechanical rotary servo actuator with **redundant** electronics, **dual** DC brushless motor, a 3-ganged potentiometer and high efficiency gearbox. It has high torque and low weight.

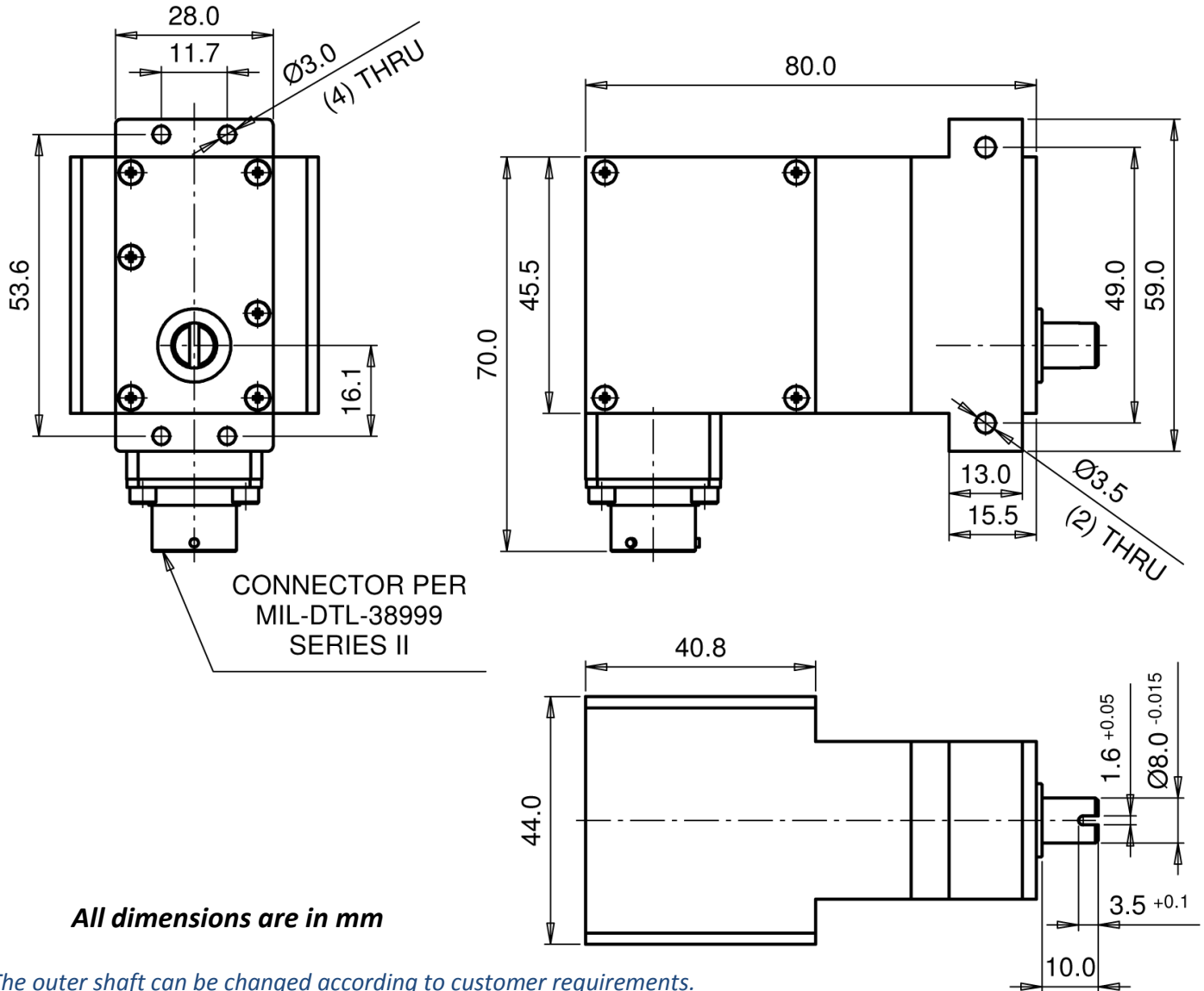


Specifications

Parameters	Units	Values	Tolerances
Nominal Voltage	VDC	28	-
Nominal Operating Voltage Range	VDC	24 – 32	-
Current @ 28 VDC, 20°C, 2 Nm Load	A	0.8	max
Stall Current @ 28 VDC, 20°C	A	2	max
Nominal Load			
○ Inertia	Kg*m ²	0.002	max
○ Torque: Spring Type, 0 Nm in Mid Position	Nm/deg	0.1	-
Continuous Load @ 28 V	Nm	2	max
Maximum Torque @ 28 VDC, 20°C	Nm	6	max
Slew Rate @ 28 VDC, 20°C			
○ No Load	deg/sec	170	min
○ For Torque 2 Nm		120	min
Useful Angular Stroke CW, CCW	deg	45	-
Angular Backlash	deg	0.5	max
Bandwidth with Nominal Load and Command Amplitude ± 4°	Hz	3	min
Positioning Accuracy in Range ± 45°	deg	±0.6	-
Friction Torque	Nm	1.0	-
Stiffness with Resistance 1 Nm	deg	1.2	max
Operating Temperature	°C	-40 to +71	-
Operating Life @ 28 VDC, 25°C	Hours	6,000	-
Altitude Operating Limits (Above Sea Level)	Feet	1,500 – 35,000	-
Weight	Kg	0.4	max
Isolated Reference and Separated Ground	V	5	-
Communications	RS-485 Half-Duplex		
EMI	MIL-STD-461F		
ESD	IEC61000-4-2 Standard to 25KV levels		

MERSA-0412 (continued)

Drawings



All dimensions are in mm

The outer shaft can be changed according to customer requirements.

For Additional Information

To learn more about the MERSA-0412 Miniature Redundant Electric Rotary Servo Actuator or other MTC products, contact MTC on **+972 4 998 7772** or email marketing@mtcind.com