



QUARTER TURN ELECTRIC ACTUATOR AVA-S20.51 SMART WIRELESS ACTUATOR 177in.lbs



Model	AVA-S20.51 177in.lbs SMART WIRELESS ELECTRIC ACTUATOR	
	High voltage	Low voltage
Rated Voltage	230V AC/DC	24V AC/DC
Voltage Range	AC 95-265V 50/60Hz, DC 100-300V	AC 15-24V 50/60Hz, DC18-30V
Consumption	9.6W run, 0.12W hold	15W run, 0.5W hold
Peak current	35mA (AC230V), 75mA (DC110V) for 5ms	900mA (DC 24V) for 5ms
Fuse	1A	5A
Communication mode	RF433/868/915MHz, FSK, LORA, RF Ocean (single control)	
Communication protocol	Modbus (option)	
Communication distance	Maximum 3km	
Maximum Break Torque	177in.lbs	177in.lbs
Run & Reseat Torque	177in.lbs	177in.lbs
Manual operation	Yes, by hexagonal wrench (supplied in clip) when no power is being applied	
Run time (90°)	≈ 10 secs	≈ 10 secs
STANDARD FEATURES:		
Operating frequency	Brushless motor with thermal override, continuous rated.	
Position sensing	Magnetic with digital sensing. No mechanical cams fitted. (±1% Accuracy)	
Maximum angle of rotation	330° ±5° (Factory set 90° ±2°)	
Position indication (visual)	2 colour (red/ yellow) dome for local visual confirmation	
End Position indication	2 x Electronic relay	
Mounting restriction	None, can be mounted at any angle. Leave room for space to operate manually, and for electrical connection	
ISO:5211	F03 & F05 (+ F04 which mounts at 45 degrees)	
Female drive	0.55" (14mm) octagon x 0.67" (17mm) deep	
Ingress protection	IP67, recommend cover provided if exposed to direct rain or sun	
Max media temp	≤ 176°F	
Ambient temp	-4°F to +140°F (ABS) -4°F to +176°F (Aluminium)	
Non-operating temp	≤ -40°F to ≥+176°F	
Ambient humidity	5-95% RH non-condensing	
Explosion proof	No, absolutely prohibited. Do not use in hazardous areas	
Shock Resistance	≥300m/S2	
Vibration	10 to 55Hz, 1.5mm double amplitude (product damage most likely if exceeded)	
Noise level	Maximum around 50dB	
Flame Retardant Level	V0 using the UL94 Test method	
Certification	CE	
Maintenance	Maintenance free	
Cable Entry	Cable gland provides, actuator pre-wired with approx. 20" flying lead	
Housing	Plastic (ABS)	
Weight	With standard ABS housing 1.37lbs (With optional aluminium housing 1.81lbs)	

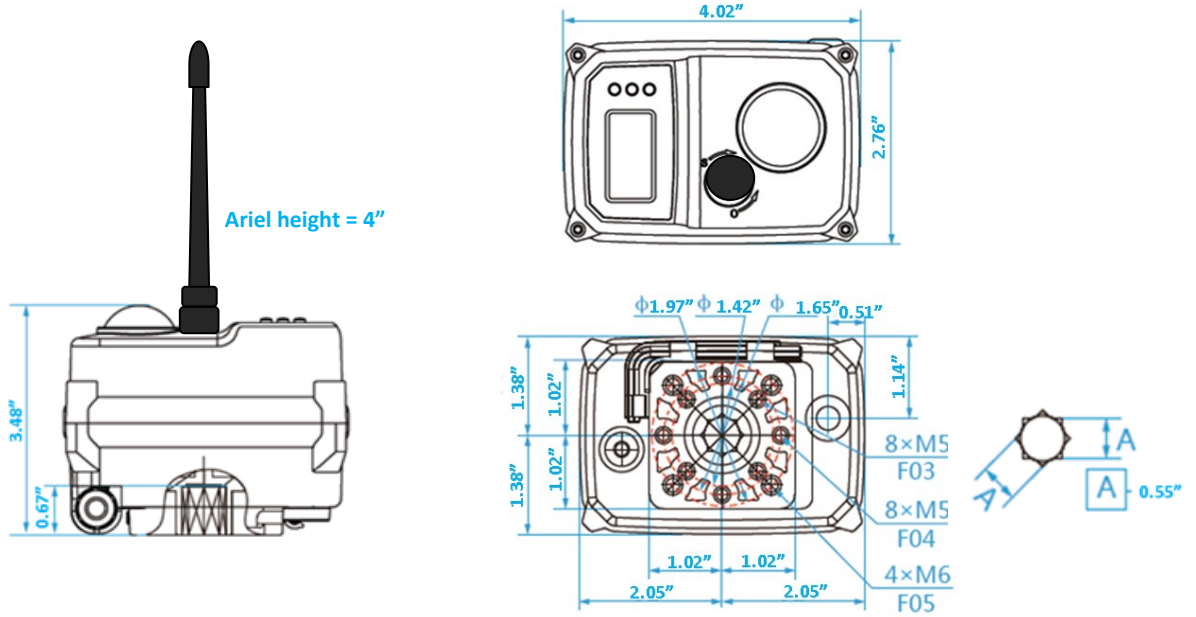


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Dimensions

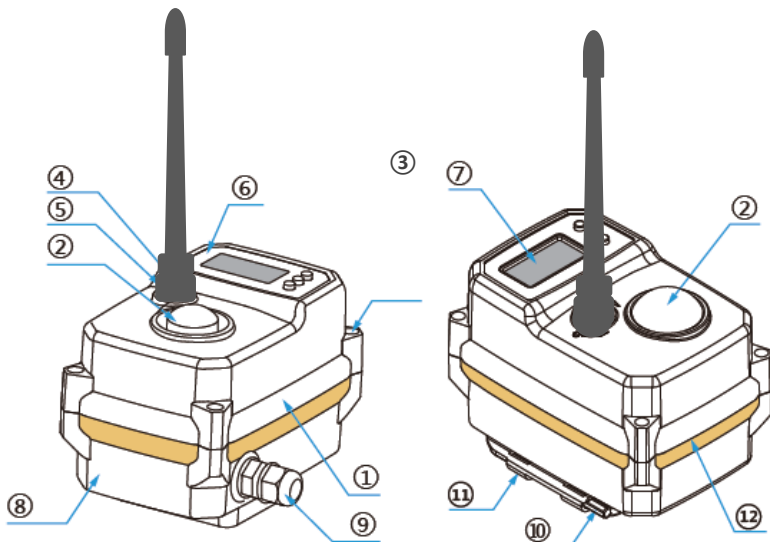
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Model	Voltage	Housing	Heater	Comm'n Mode	Comm'n Protocol	Baud rate
AVA-S20.51-	5 AC 110V or	P Plastic (ABS)	0 None	1 RF433 MHz	N None	D Default 9600
	5 AC 240V	A Aluminium	H 5W/24kΩ	2 RF868 MHz	M MODBUS	R Range 1200-19200
	6 AC 24V or			3 RF915 MHz		
	6 DC 24VDC			4 LORA		
	Multi-voltage			5 RF Ocean		

MATERIALS

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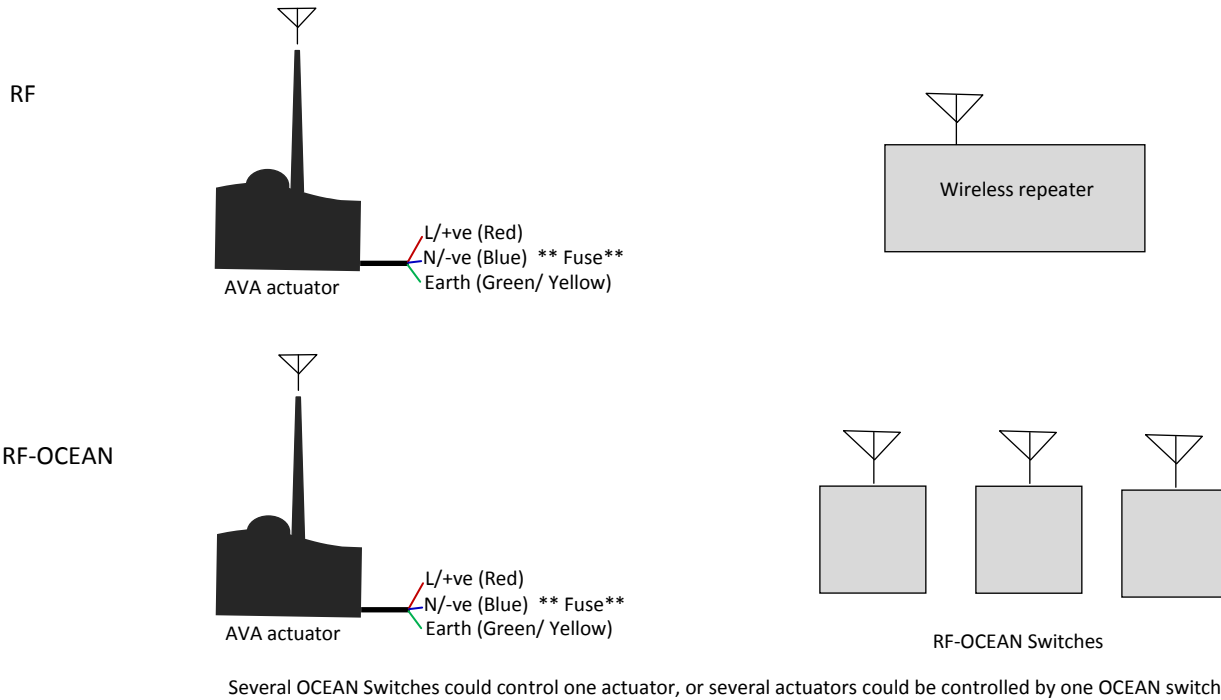


No	PART	MATERIAL
1	Housing	Aluminium base, ABS cover
2	Indicator	Clear plastic
3	Cover screws	304SS
4	Override drive	304SS
5	Seal	NBR
6	Screen cover	Rubber
7	Screen	OLED
8	ID Label	PVC
9	Connector	Plastic
10	Allen key	Tool steel
11	Allen key clip	ABS
12	Cover seal	NBR



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Overview: All AVA smart electric actuators have local controls as standard which combine an OLED screen and 3 positive feel push buttons to create local control and a variety of user friendly adjustments. The bright screen with blue letters on a black background are easy to read, and the use of the push buttons to adjust settings is intuitive. The local controls require power to be applied to the actuator to operate.

Local controls:

M button	M button is used to enter and switch menus.
K2 button	K2 is used in conjunction with K3 for adjusting values.
K3 button	K3 is used for changing settings, navigating menus, exiting and saving.
OLED Screen	OLED Screen with clear blue letters against a black background

Standard local control function options:

- MANUAL CONTROL** The AVA smart actuator can be opened and closed using the K2 and K3 buttons
- DEAD BAND** Adjusts the accuracy and sensitivity
- SPEED CONTROL** The working time can be increased either by setting a step timer (run/stop/run/stop), or continuous running adjusting the PWM
- CLOSED POSITION** Small adjustments can easily and quickly be made to the final close position angle (zero adjustment).
- REVERSE ACTING** Receiving an open command signal sends the AVA smart actuator to the closed position and vice versa
- EXTEND ANGLE** Adjust the open position by adjusting the span. Typically used to set 0-180 degree operation



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