



QUARTER TURN ELECTRIC ACTUATOR

**AVA-S20.19 SMART ON-OFF HI-SPEED 15Nm**



Model	<b>AVA-S20.19 15Nm MULTI-VOLTAGE SMART ON-OFF ELECTRIC ACTUATOR</b>
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Rated Voltage	Low voltage 24V AC/DC
Voltage Range	DC 22-28V
Consumption	48W run, 0.85W hold
Peak current	4.5mA (DC 24V) for 5ms
Fuse	10A
Maximum Break Torque Nm	15
Run & Reseat Torque Nm	15
Manual operation	Yes, by hexagonal wrench (supplied in clip) when no power is being applied
Run time	≈ 1 secs

STANDARD FEATURES:	
Operating frequency	Continuous, but recommended to allow ≥ 1 minute between cycles
Position sensing	Magnetic with digital sensing. No mechanical cams fitted.
Maximum angle of rotation	330° ±5°
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	11mm octagon x 17mm deep
Ingress protection	IP67, recommend cover provided if exposed to direct rain or sun
Max media temp	≤ 80C
Ambient temp	-20 to +60C (ABS) -20 to +80C (Aluminium)
Non-operating temp	≤ -40C to ≥80C
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)
VNoise level	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. 0.5m flying lead
Housing	Plastic (ABS) cover
Weight	With standard ABS housing 0.62kg (With optional aluminium housing 0.82kg)

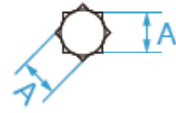
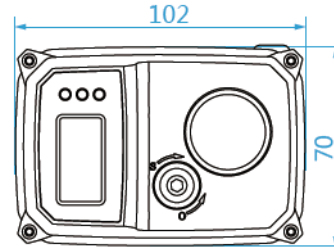
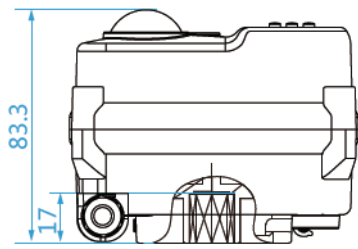


Success results from our continual pursuit of perfection, details therefore subject to change without notice in the interests of product development and improvement.

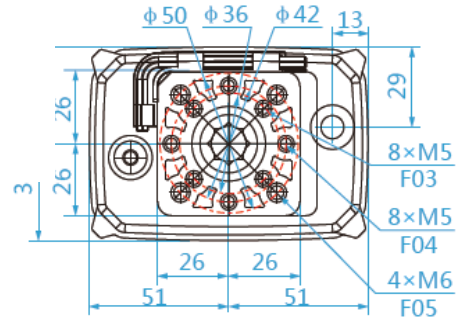
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**DIMENSIONS**

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A = 14mm (11mm option)



**PART NUMBERING**

**AVA-S20.19 15Nm SMART ON-OFF ELECTRIC ACTUATOR**



Model	Voltage	Housing	Heater	Control of on-off function
AVA-S20.19	4 DC 24V	P Plastic (ABS)	O None	E SPDT. Switchable +ve/ live Relay end of travel confirmation
		A Aluminium	H 2W/24kΩ	G SPST. Make/ break +ve/ live Relay end of travel confirmation (factory option)

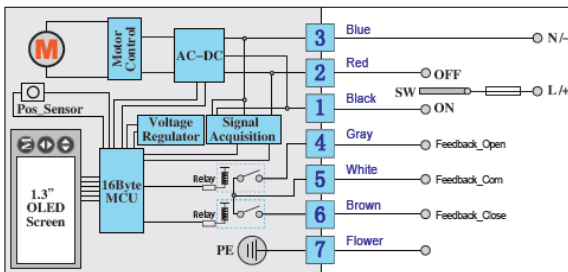
NOTE: UK STANDARD STOCK IS WITH WIRING 'E', ANY OTHERS ARE FACTORY OPTIONS.

**STANDARD WIRING DIAGRAM**

**AVA-S20.19 15Nm SMART ON-OFF ELECTRIC ACTUATOR**



**AVA-S20.10 ON-OFF WIRING 'E'**



SW	Valve Position	Confirmation	Notes
OFF	Closed	5 & 6 connected	No signal without external power.
ON	Open	5 & 4 connected	No signal mid-travel

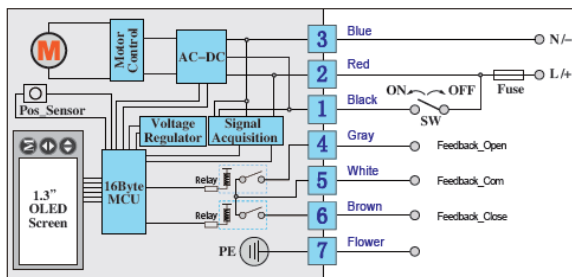
NOTE: UK STANDARD STOCK IS THIS WIRING, OTHERS ARE FACTORY OPTIONS.



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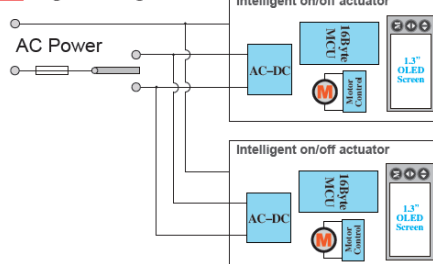
AVA-S20.19 ON-OFF WIRING 'G'



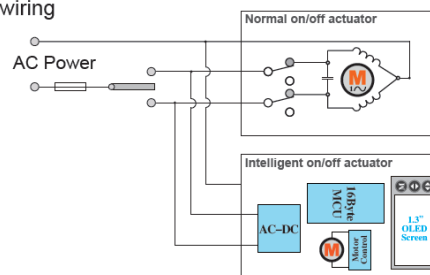
SW	Valve Position	Confirmation	Notes
OFF	Closed	5 & 6 connected	No signal without external power. No signal mid-travel
ON	Open	5 & 4 connected	

NOTE: THIS WIRING IS A FACTORY OPTION

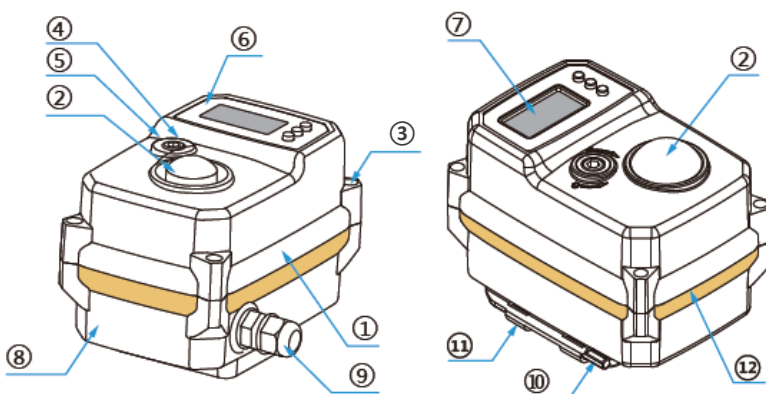
✓ Right wiring



✗ Error wiring



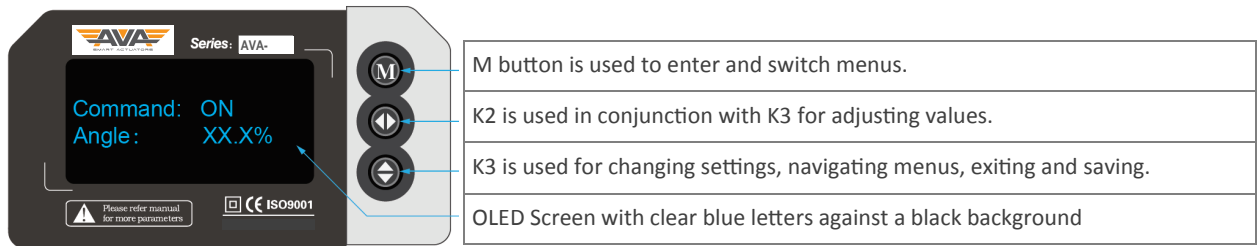
Note on wiring multiple actuators. Do not control AVA basic and Smart actuators in parallel using the same contactor.



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

**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:



#### Standard local control function options:

<b>MANUAL CONTROL</b>	The AVA smart actuator can be opened and closed using the K2 and K3 buttons
<b>DEAD BAND</b>	Adjusts the accuracy and sensitivity
<b>SPEED CONTROL</b>	The working time can be increased either by setting a step timer (run/stop/run/stop), or continuous running adjusting the PWM
<b>CLOSED POSITION</b>	Small adjustments can easily and quickly be made to the final close position angle (zero adjustment).
<b>REVERSE ACTING</b>	Receiving an open command signal sends the AVA smart actuator to the closed position and vice versa
<b>EXTEND ANGLE</b>	Adjust the open position by adjusting the span. Typically used to set 0-180 degree operation
<b>3 POSITIONS</b>	Sets the 3rd position (subject to wiring system)