



Main Features:-

- ◆ 450Nm Break - 400Nm Run Torque
- ◆ Basic Series On Off, & Hi Speed
- ◆ Smart Series On Off, Modulating,
- ◆ F07-10 x 22mm ISO 5211 - IP67 Housing
- ◆ New 400Nm series coming Q3-Q4 2020

Approvals & Certification Available:



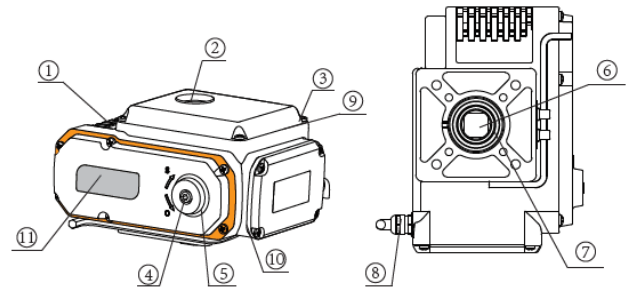
*Check for details and availability



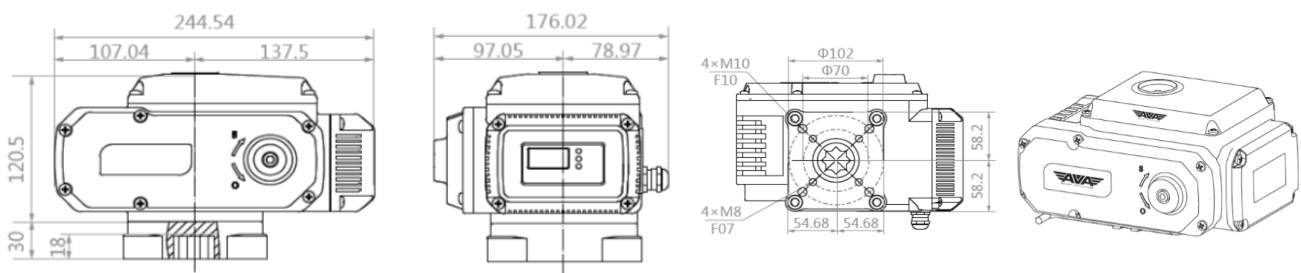
SERIES: AVA-400

MANUFACTURER: SMART ACTUATORS

No	PART	MATERIALS
1	ACTUATOR HOUSING	ALUMINIUM
2	INDICATOR	TRANSPARENT AS
3	SCREWS IN COVER	304
4	MANUAL OVERRIDE SHAFT	304
5	MANUAL OVERRIDE SEAL	NBR
6	LABEL	PVC
8	MANUAL OVERRIDE WRENCH	STEEL
9	WEATHERPROOF CABLE CONNECTOR	NYLON
10	COVER SEAL	NBR



DIMENSIONS



ACTUATOR DIMENSIONS

UNIQUE SMART ACTUATOR SERIES INTRODUCING SMART SCREEN AND MENU SYSTEM



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

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AVA is a feature rich, compact actuator series. Whilst small in size, the actuator offers all the features you would want from your electric actuator, IP67 housing, heater and position feedback !



SERIES: AVA-400

BASIC ON OFF AND FAILSAFE ACTUATOR SERIES TECHNICAL DATA

Model: AVA 400 - 400Nm BASIC ON-OFF ACTUATOR					
Specification	AC 1ph 50/60Hz			DC	
Rated Voltage	AC230V	AC110V	AC24V	DC24V	DC12V
Voltage Range	AC190-250V	AC90-130V	N/A	DC 22-28V	N/A
Consumption B400	150W@ running 0.0W hold	150W@ running 0.0W hold	N/A	120w running @ 1.5w holding	N/A
Peak current B400	0.7A @ 5ms	0.7A @ 5ms	N/A	6A@ 5ms	N/A
Fuse B400	5A	10A	N/A	10A	N/A
Maximum Break Torque Nm	450Nm			450Nm	N/A
Run & Reseat Torque Nm	400Nm			400Nm	
Manual operation	Yes, by hexagonal wrench (supplied in clip) when no power is being applied				
Run time B400	About 30 Seconds			About 30 Seconds	About 30 Seconds

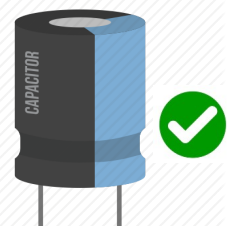
STANDARD FEATURES:

Operating frequency	Not continuous, allow ≥ 1 minute between cycles
Position confirmation	Mechanically driven dome style visual 2 colour indicator
Mounting restriction	None, can be mounted at any angle. Leave room for space to operate manually, and for electrical connection
End Position indication	Micro-switches operated by adjustable internal cams , set slightly ahead of the final motor stop position.
ISO:5211	F07-10
Working Angle	Factory set at $90^\circ \pm 2^\circ$, maximum angle of rotation 360°
Female drive	22mm x 18mm deep
Ingress protection	IP67
Max media temp	$\leq 80C$
Ambient temp	-20 to +80C (Aluminium) Non-operating temp ; $\leq -40C$ to $\geq 80C$
Cable Length	Supplied without cable, 200 series is supplied with wiring box with conduit entry. Wiring via terminal strip within box.
Ambient humidity	5-95% RH non-condensing
Explosion proof	No, prohibited. Do not use in hazardous areas
Housing	Aluminium
Weight	With standard aluminium housing 5.5kg
Options	None currently.

ACTUATOR SPECIFICATIONS

FAILSAFE FUNCTION COMING TO OUR 400NM SERIES SOON, ADAPTING CAPACITOR TECHNOLOGY

AVA Actuators do not use Lithium batteries to achieve its failsafe functionality. Unlike most other actuators offering failsafe, AVA uses the latest electrical capacitor technology. This is seen as the next best thing for fail-safe solution if a mechanical spring is not available. AVA actuators use the opening (or closing if normally open) to charge the actuator and ensure the actuator will close on power loss.



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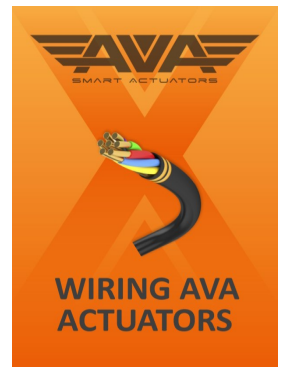
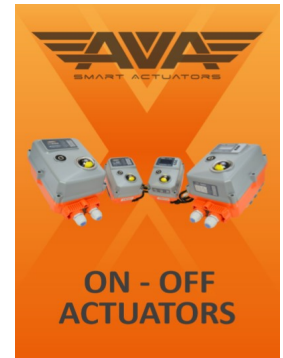
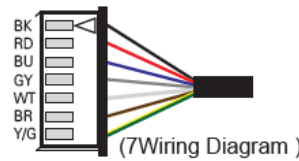
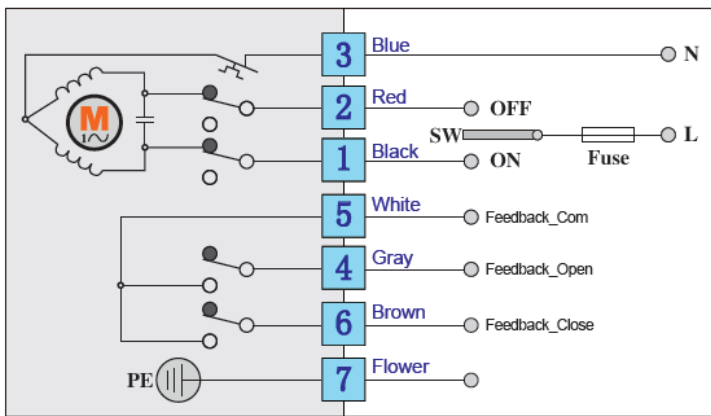
AVA is a revolutionary range of compact actuators offering 20Nm through to 400Nm with On Off, Failsafe, Modulating, Hi Speed functionality. All actuators are IP67 as standard, ISO 5211 direct mount.

SERIES: AVA-400

BASIC ON OFF AND FAILSAFE ACTUATOR SERIES TECHNICAL DATA

Standard Wiring for our ON-OFF Actuators B400

Standard Wiring for our AVA Basic 400 series actuators including all voltages, 12VDC, 24VDC, 24VAC, 110VAC, 220VAC, 24VAC/DC and 95-265VAC 50/60Hz. Our ON-OFF actuators use a simple 3 wire system for control and 3 wire feedback connection as below. Note that the internal Space heater is pre wired and doesn't require additional wiring. When the actuator is powered, the internal heater will operate.

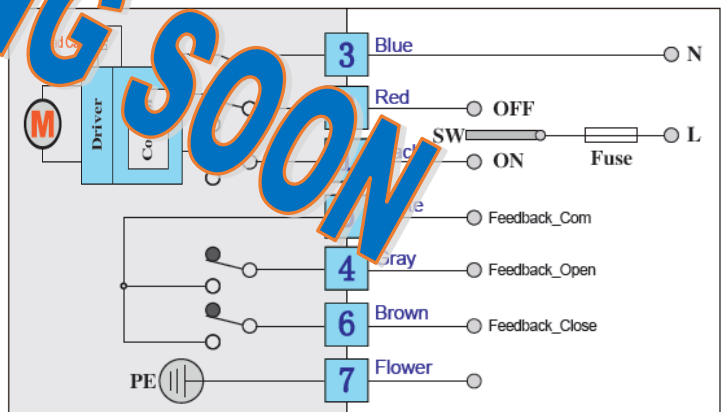


Standard Wiring for our FAILSAFE Actuators

COMING SOON

Standard Wiring for our AVA Basic 400 series actuators including all voltages, 12VDC, 24VDC, 24VAC, 110VAC, 220VAC, 24VAC/DC and 95-265VAC 50/60Hz. Our Fail-safe actuators use a simple 2 wire system for control and 3 wire feedback connection as below. The Failsafe actuators use capacitors and as such will require an initial charge period. After this point, the actuator will charge whilst opening and on removing power

from Pin 2
Note that the internal Space heater is pre wired and doesn't require additional wiring. When the actuator is powered, the internal heater will operate.



WIRING DIAGRAMS



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SERIES: AVA-400

SMART ON OFF AND SMART MODULATING ACTUATOR SERIES TECHNICAL DATA

Model: AVA 400Nm - 400-10 SMART ON-OFF ACTUATOR & MODULATING 400-25

Specification	AC 1ph 50/60Hz			DC	
	AC230V	AC110V	AC24V	DC24V	DC12V
Rated Voltage	AC190-250V	AC90-130V	N/A	DC 22-28V	N/A
Voltage Range	AC190-250V	AC90-130V	N/A	DC 22-28V	N/A
Consumption S400-10 / S400-25	150W@ running 0.0W hold	150W@ running 0.0W hold	N/A	120w running @ 1.5w holding	N/A
Peak current S400-10 / S400-25	0.7A @ 5ms	0.7A @ 5ms	N/A	6A@ 5ms	N/A
Fuse S400-10 / S400-25	5A	10A	N/A	10A	N/A
Maximum Break Torque Nm	450Nm			450Nm	N/A
Run & Reseat Torque Nm	400Nm			400Nm	
Manual operation	Yes, by hexagonal wrench (supplied in clip) when no power is being applied				
Run time S200-10 / S200-25	About 30 Seconds			About 30 Seconds	About 30 Seconds

STANDARD FEATURES:

Operating frequency	Not continuous, allow ≥ 1 minute between cycles
Position confirmation	Mechanically driven dome style visual 2 colour indicator
Mounting restriction	None, can be mounted at any angle. Leave room for space to operate manually, and for electrical connection
End Position indication	Micro-switches operated by adjustable internal cams , set slightly ahead of the final motor stop position.
ISO:5211	F07-10
Working Angle	Factory set at $90^{\circ} \pm 2^{\circ}$, maximum angle of rotation 360°
Female drive	22mm x 18mm deep
Ingress protection	IP67
Max media temp	$\leq 80C$
Ambient temp	-20 to +80C (Aluminium) Non-operating temp ; $\leq -40C$ to $\geq 80C$
Cable Length	Supplied without cable, 200 series is supplied with wiring box with conduit entry. Wiring via terminal strip within box.
Ambient humidity	5-95% RH non-condensing
Explosion proof	No, prohibited. Do not use in hazardous areas
Housing	Aluminium
Weight	With standard aluminium housing 5.5kg
Options	None currently.





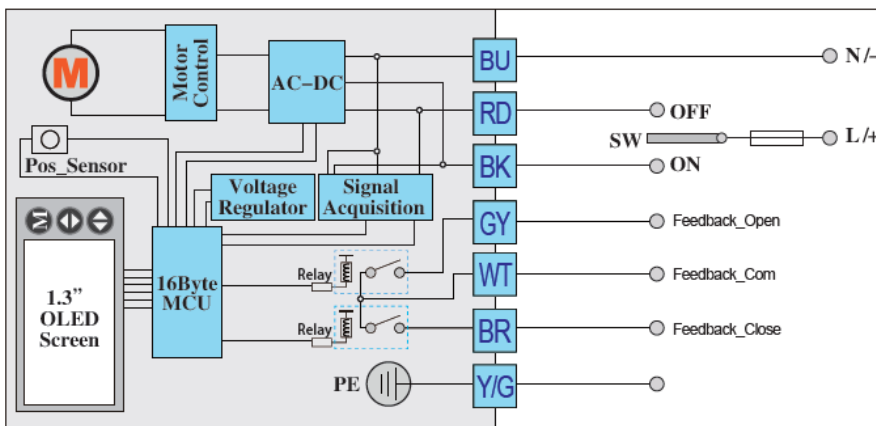
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SERIES: AVA-400

SMART ON OFF AND SMART FAILSAFE ACTUATOR SERIES TECHNICAL DATA

Standard Wiring for our ON-OFF Actuators 20010

Standard Wiring for our AVA Smart 400 series actuators including all voltages, 24VAC or 24VDC and 110V or 220VAC 50/60Hz. Our ON-OFF actuators use a simple 3 wire system for control and 3 wire feedback connection as below. Note that the internal Space heater is pre wired and doesn't require additional wiring. When the actuator is powered, the internal heater will operate.

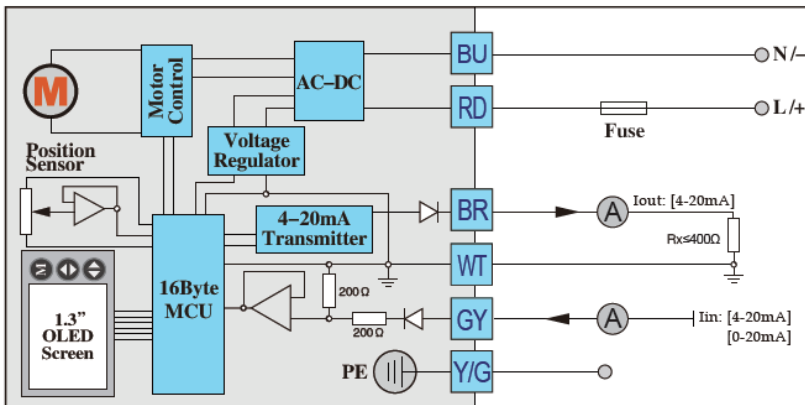


WIRING DIAGRAMS

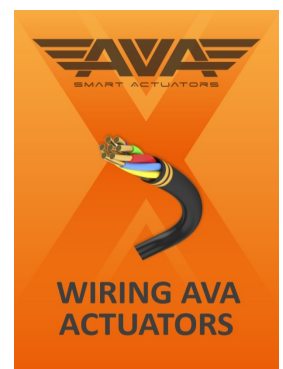
Standard Wiring for our Modulating Actuators 40025

Standard Wiring for our AVA Smart 400 series actuators including all voltages, 24VAC or DC and 110 or 220VAC 50/60Hz. Our ON-OFF actuators use a simple 2 wire system for power and 3 wire control and feedback connection as below and 3 wire input/ output and common loop for modulating control. Note that the internal Space heater is pre wired and doesn't require additional wiring. When the actuator is powered, the internal heater will operate.

4-20mA/0-20mA



If using 1-5V, 0-5V, 2-10V or 0-10V then in the wiring diagram A is replaced by V and Resistor is 10K. For 20 series, must order as Amp or Volt input/output.





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SERIES: AVA-400

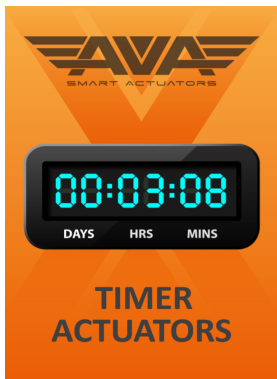
WHAT ELSE IS AVAILABLE FROM AVA ?

WIRELESS RF ACTUATORS

Available for the smart actuators that we offer, AVA offer a wireless controlled actuator that is using the latest technology in RF control. Using our smart actuators we are able to give open and close functionality over large distances uses a number of wireless / RF technologies. This is mainly designed for applications where long distance control is needed and where power is available but control is not, such as out buildings. The wireless control can be a 1 to 1 connection or 1 to 10 connection for example. Call your AVA sales team for more information.



ADDITIONAL FUNCTIONALITY FROM AVA



TIMER ACTUATOR SERIES

AVA have a very unique offering in our Timer series actuators. The AVA Smart actuators use the onboard firmware and menu system to give the customer a programmable timer function within the actuator. The user can set various methods of opening and closing for example either as a PULSE timer (power open, wait a set period of time and automatically close) or DAY timer which allows a schedule of operations to be setup via the intuitive menu system. This actuator series removes the need of PLC's to control your actuator. All you need is power.

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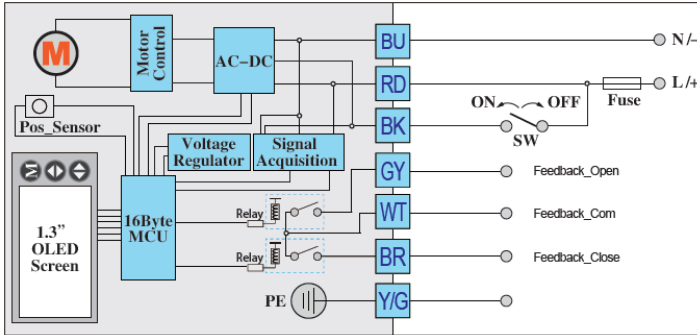


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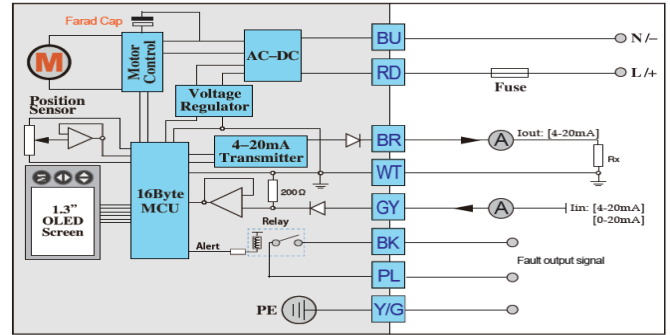
SERIES: AVA-400

ALTERNATIVE WIRING CONFIGURATIONS AVAILABLE FROM AVA

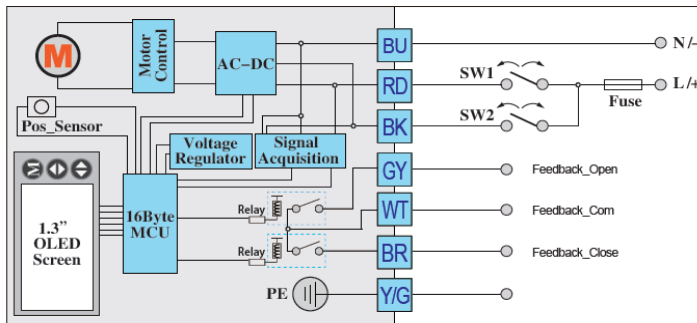
ACTUATOR WIRING OPTIONS



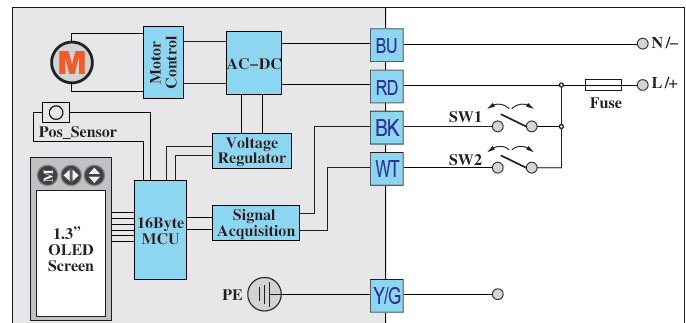
Wiring G: BD3J - SPST / Relay Position Confirmation



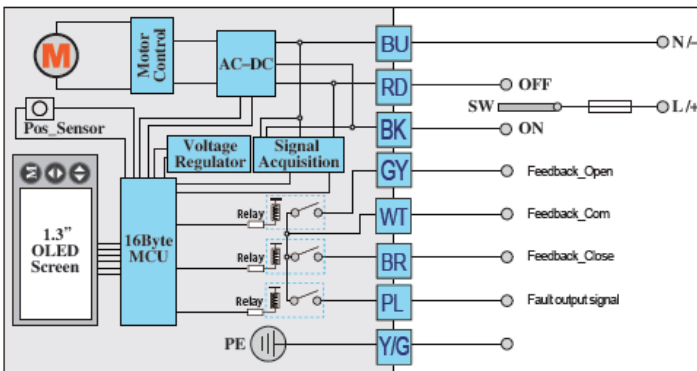
Wiring P2: 4-20ma Failsafe with alarm output



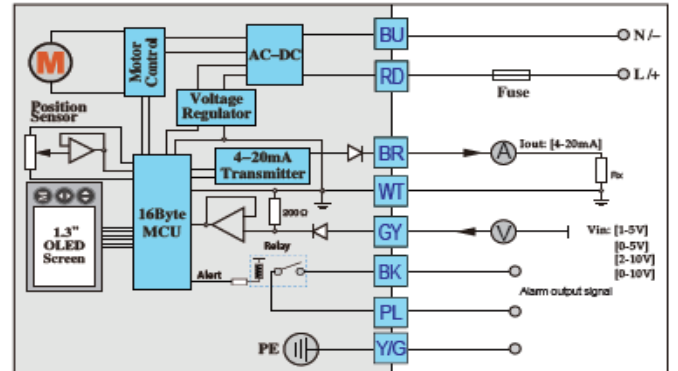
Wiring J: B3J2 2 x SPST / Relay Position Confirm (3 position)



Wiring M: B4J SPST / No position confirmation (4 position)



Wiring F: B3JA 2 x SPDT/Relay Position Confirm + Alarm Output



Wiring U5: 0-10V Control/ Feedback with Alarm Output

AVA Wiring Options

As you will see from the previous page, our AVA electric actuators are capable of various wiring configurations based on what your application requires. As detailed, our standard for our Basic actuators is what we call B - B3S which is a SPDT with volt free position confirmation. Our Smart actuators use E - B3J which is SPDT Relay position confirmation. Remember that all of our Smart units don't use mechanical cams and micro switches. A digital encoder and relays are used. The following are some of the additional wiring diagrams that you might find of interest, that are available for our Smart actuators including 3 and 4 position wiring configurations. **Check with your AVA reseller for lead time on non stock wiring configurations.**

