



Main Features:-

- ◆ 90Nm Break - 80Nm Run Torque
- ◆ Basic Series On Off, Failsafe & Hi Speed
- ◆ Smart Series On Off, Modulating, Failsafe, Bus Communication and Hi Speed
- ◆ F05-07 x 17mm ISO 5211 - IP67 Housing

Approvals & Certification Available:



*Check for details and availability

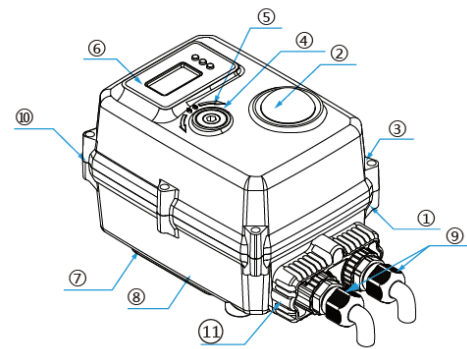


SERIES: AVA-80

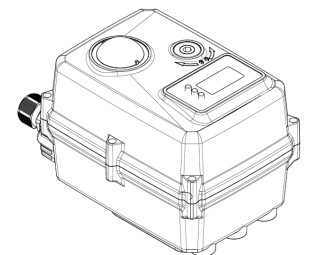
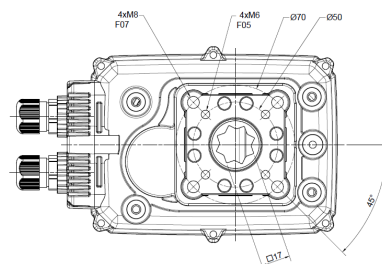
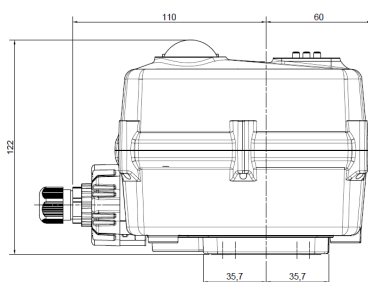
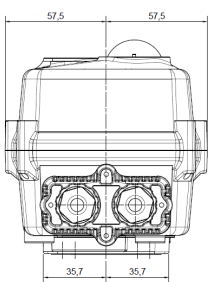
MANUFACTURER:



No	PART	MATERIALS
1	ACTUATOR HOUSING	ABS
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



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

ACTUATOR DIMENSIONS

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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-80

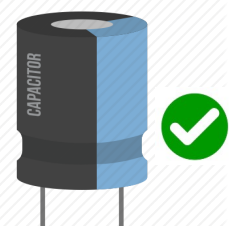
BASIC ON OFF AND FAILSAFE ACTUATOR SERIES TECHNICAL DATA

Model: AVA-80 80Nm BASIC ON-OFF & AVA B84 FAILSAFE ELECTRIC ACTUATORS					
Specification	AC 1ph 50/60Hz			DC	
Rated Voltage	AC230V	AC110V	AC24V	DC24V	DC12V
Voltage Range	AC 95-265V	AC 95-265V	AC22-28V	DC22-28V	DC10-15V
Consumption B80	15W run, 1.6W hold	15W run, 1.6W hold	15W run, 1.5W hold	15W run, 1.5W hold	15W run, 1.5W hold
Peak current B80	0.26A for 5ms	0.26A for 5ms	2.5A for 5ms	2.54A for 5ms	2.54A for 5ms
Consumption B84	15W run, 1.6W hold	15W run, 1.6W hold	15W run, 1.5W hold	15W run, 1.5W hold	15W run, 1.5W hold
Peak current B84	0.52A for 5ms	0.52A for 5ms	5A for 5ms	5A for 5ms	5A for 5ms
Fuse B80	2A	2A	5A	5A	5A
Fuse B80	10A	10A	10A	10A	10A
Maximum Break Torque Nm	90			90	90
Run & Reseat Torque Nm	80			80	
Manual operation	Yes, by hexagonal wrench (supplied in clip) when no power is being applied				
Run time B80	≈ 10 sec			≈ 10 sec	≈ 10 sec
Run time B84	≈ 10 sec			≈ 10 sec	≈ 10 sec
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	F05 & F07				
Working Angle	Factory set at 90° ±2°, maximum angle of rotation 360°				
Female drive	17mm x 21mm deep				
Ingress protection	IP67				
Max media temp	≤ 80C				
Ambient temp	-20 to +60C (ABS) -20 to +80C (Aluminium) Non-operating temp ; ≤ -40C to ≥80C				
Cable Length	Supplied without cable, 80 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	Plastic (ABS)				
Weight	With standard ABS housing 2.2kg (With optional aluminium housing 3Kg)				
Options	Extended flying lead option, per metre. Aluminium housing.				

ACTUATOR SPECIFICATIONS

AVA'S FAILSAFE CAPACITOR OPTION EXPLAINED - AVA ACTUATORS DO NOT USE BATTERIES!

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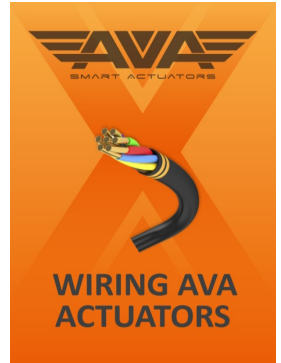
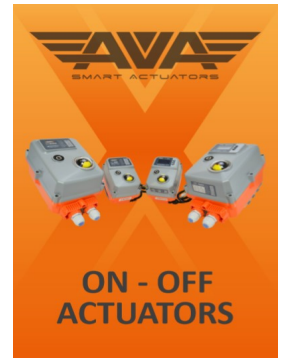
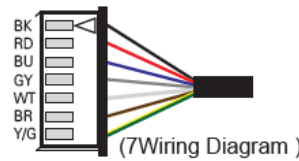
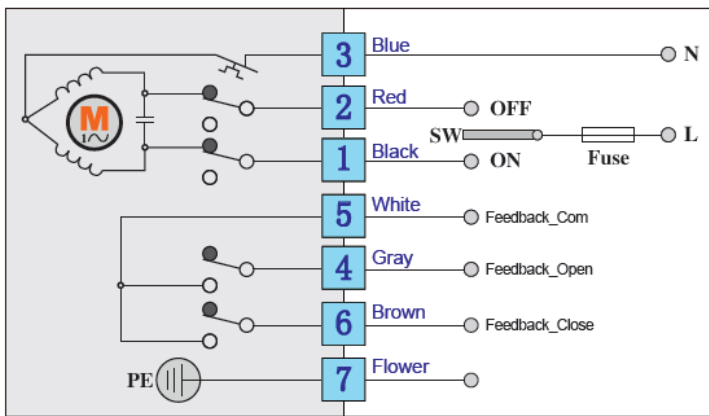
AVA is a revolutionary range of compact actuators offering 20Nm through to 400Nm with On Off, Failsafe, Modulating, Hi Speed functionality. All actuators are IP67 as standard, ISO 5211 direct mount.

SERIES: AVA-80

BASIC ON OFF AND FAILSAFE ACTUATOR SERIES TECHNICAL DATA

Standard Wiring for our ON-OFF Actuators B80

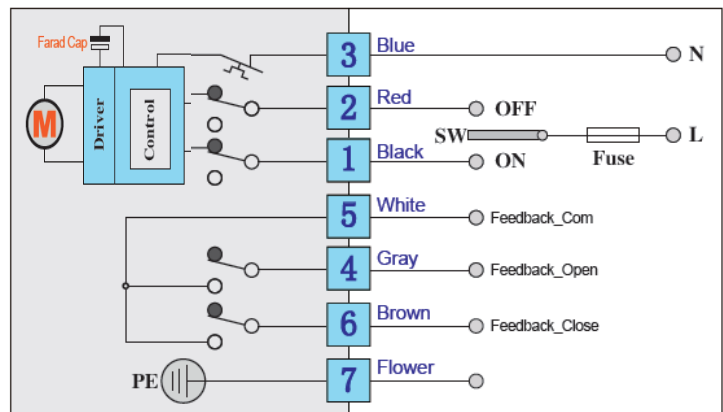
Standard Wiring for our AVA Basic 80 series actuators including all voltages, 12VDC, 24VDC, 24VAC, 110VAC, 220VAC, 24VAC/DC and 95-265VAC 50/60Hz. Our ON-OFF actuators use a simple 3 wire system for control and 3 wire feedback connection as below. Note that the internal Space heater is pre wired and doesn't require additional wiring. When the actuator is powered, the internal heater will operate.



Standard Wiring for our FAILSAFE Actuators B84

Standard Wiring for our AVA Basic 84 series actuators including all voltages, 12VDC, 24VDC, 24VAC, 110VAC, 220VAC, 24VAC/DC and 95-265VAC 50/60Hz. Our Failsafe 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 (Red) the actuator will close. Re applying power to Pin 2 will Open the actuator and again charge the capacitor.

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-80

SMART ON OFF AND SMART FAILSAFE ACTUATOR SERIES TECHNICAL DATA

Model: AVA-80 80Nm BASIC ON-OFF & AVA B84 FAILSAFE ELECTRIC ACTUATORS

Specification	AC 1ph 50/60Hz			DC	
	AC230V	AC110V	AC24V	DC24V	DC12V
Rated Voltage	AC 95-265V	AC 95-265V	AC22-28V	DC22-28V	DC10-15V
Voltage Range	15W run, 1.6W hold	15W run, 1.6W hold	15W run, 1.5W hold	15W run, 1.5W hold	15W run, 1.5W hold
Consumption B80	0.26A for 5ms	0.26A for 5ms	2.5A for 5ms	2.54A for 5ms	2.54A for 5ms
Peak current B80	15W run, 1.6W hold	15W run, 1.6W hold	15W run, 1.5W hold	15W run, 1.5W hold	15W run, 1.5W hold
Consumption B84	0.52A for 5ms	0.52A for 5ms	5A for 5ms	5A for 5ms	5A for 5ms
Peak current B84	2A	2A	5A	5A	5A
Fuse B80	10A	10A	10A	10A	10A
Fuse B80	90			90	90
Maximum Break Torque Nm	80			80	
Run & Reseat Torque Nm	Yes, by hexagonal wrench (supplied in clip) when no power is being applied				
Manual operation	~ 10 sec		~ 10 sec		~ 10 sec
Run time B80	~ 10 sec		~ 10 sec		~ 10 sec
Run time B84	~ 10 sec		~ 10 sec		~ 10 sec

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	F05 & F07
Working Angle	Factory set at $90^\circ \pm 2^\circ$, maximum angle of rotation 360°
Female drive	17mm x 21mm deep
Ingress protection	IP67
Max media temp	$\leq 80C$
Ambient temp	-20 to +60C (ABS) -20 to +80C (Aluminium) Non-operating temp ; $\leq -40C$ to $\geq 80C$
Cable Length	Supplied without cable, 80 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	Plastic (ABS)
Weight	With standard ABS housing 2.2kg (With optional aluminium housing 3Kg)
Options	Extended flying lead option, per metre. Aluminium housing.

ACTUATOR SPECIFICATIONS



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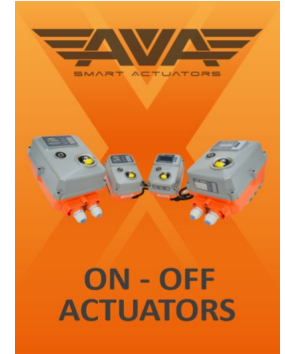
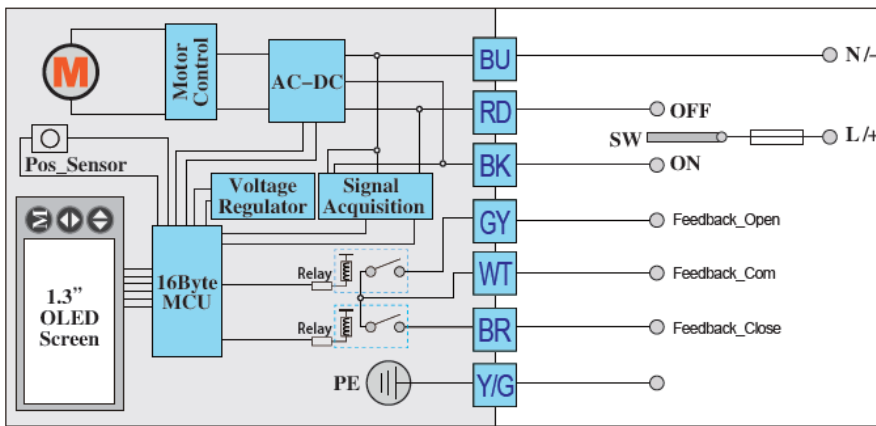
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SERIES: AVA-80

SMART ON OFF AND SMART FAILSAFE ACTUATOR SERIES TECHNICAL DATA

Standard Wiring for our ON-OFF Actuators 8010

Standard Wiring for our AVA Smart 80 series actuators including all voltages, 12VDC, 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. [See page 11 for additional wiring configurations](#)

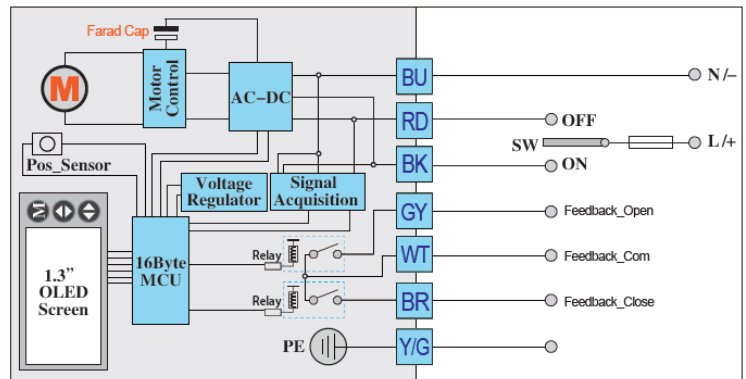


WIRING DIAGRAMS

Standard Wiring for our FAILSAFE Actuators S8014

Standard Wiring for our AVA Smart Failsafe actuators including all voltages, 12VDC, 24VAC/DC and 95-265VAC 50/60Hz. Our Failsafe 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 (Red) the actuator will close. Re applying power to Pin 2 will Open the actuator and again charge the capacitor.

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.





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SERIES: AVA-80

SMART MODULATING AND MODULATING FAILSAFE TECHNICAL DATA

Model: AVA S80-25 80Nm SMART MODULATING & AVA S80-26 SMART MODULATING FAILSAFE

Specification	High Voltage		Low Voltage	
Rated Voltage	95-265VAC		24VAC/DC	DC12V
Voltage Range	AC95-265V / DC100-300V		AC18-26V / DC22-32V	AC18-26V / DC22-32V
Consumption S80-25	30W @ running 3.9W holding		28W @ running 2.10W @holding	28W @ running 2.10W @holding
Peak current S80-25	0.26A @ 5ms @ AC230V		2.50A @ 5ms @ DC24V	2.50A @ 5ms @ DC12V
Consumption S80-26	30W @ running 3.9W holding		28W @ running 2.10W @holding	28W @ running 2.10W @holding
Peak current S80-26	0.52A @ 5ms @ AC230V		4.5A @ 5ms @ DC24V	4.5A @ 5ms @ DC12V
Fuse S80-25	2A		5A	15A
Fuse S80-26	10A		10A	15A
Maximum Break Torque Nm	90		90	90
Run & Reseat Torque Nm	80		80	
Manual operation	Yes, by hexagonal wrench (supplied in clip) when no power is being applied			
Run time 0-90 degree S80-25	≈ 10 sec		≈ 10 sec	≈ 10 sec
Run time 0-90 degree S80-26	≈ 10 sec		≈ 10 sec	≈ 10 sec

STANDARD FEATURES:

Operating frequency	Not continuous, 75% duty cycle but recommended to allow ≥ 1 minute between cycles. DC uses Brushless Motor		
Position confirmation	Magnetic with digital sensing. No mechanical cams fitted.		
Mounting restriction	None, can be mounted at any angle. Leave room for space to operate manually, and for electrical connection		
Vibration Rating/Tested	10 to 55Hz 1.5mm double amplitude		
ISO:5211	F05 & F07 with 17mm x 21mm deep female drive.		
Working Angle	Factory set at 90° ±2°, maximum angle of rotation 360°		
Smart Screen	1.3" Colour OLED screen with touch buttons used for display and menu to customise functionality of actuator		
Ingress protection	IP67		
Max media temp	≤ 80C		
Ambient temp	-20 to +60C (ABS) -20 to +80C (Aluminium) Non-operating temp ; ≤ -40C to ≥80C		
Cable Length	Supplied without cable, 60-80 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	Plastic (ABS)		
Weight	With standard ABS housing 2.2kg (With optional aluminium housing 3Kg)		
Options	Extended flying lead option, per metre. Aluminium housing. Alarm output relays		

ACTUATOR SPECIFICATIONS



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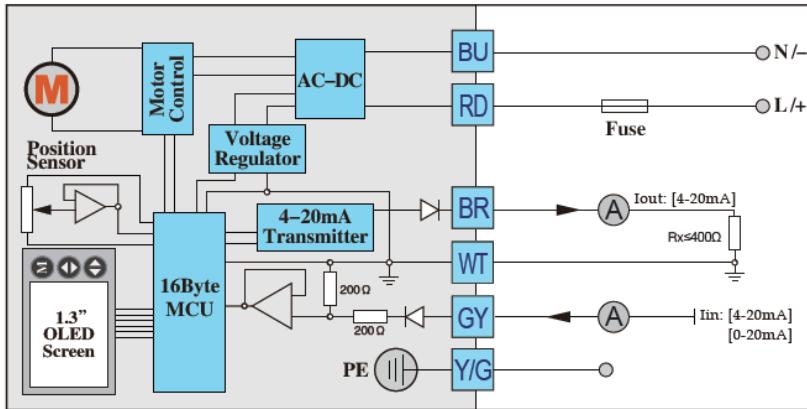
SERIES: AVA-80

SMART MODULATING AND MODULATING FAILSAFE TECHNICAL DATA

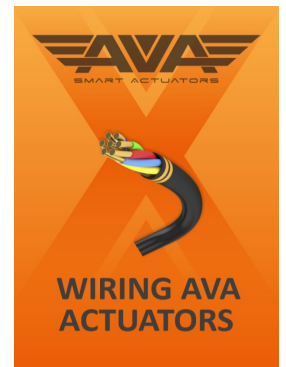
Standard Wiring for our Modulating Actuators 8025

Standard Wiring for our AVA Smart 20 series actuators including all voltages, 12VDC, 24VAC/DC and 95-265VAC 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. See page 11 for additional wiring configurations

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.



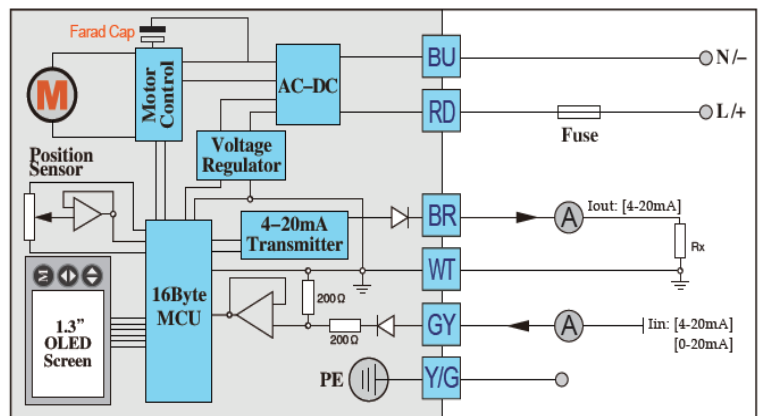
WIRING DIAGRAMS



Standard Wiring for our FAILSAFE Actuators S8026

Standard Wiring for our AVA Smart Modulating Failsafe actuators including all voltages, 12VDC, 24VAC/DC and 95-265VAC 50/60Hz. Our Failsafe actuators use a simple 2 wire system for power, 3 wire 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 (Red) the actuator will close. Re applying power to Pin 2 will Open the actuator and again charge the capacitor.

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.





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-80

SMART HI SPEED AND MODULATING HI SPEED TECHNICAL DATA

Model: AVA S80-19 80Nm SMART HI SPEED & AVA S80-26 SMART MODULATING HI SPEED

Specification	High Voltage		Low Voltage	
	Rated Voltage	95-265VAC		24VAC/DC
Voltage Range	AC95-265V / DC100-300V		AC18-26V / DC22-32V	N/A
Consumption S80-19	30W @ running 3.9W holding		28W @ running 2.10W @holding	N/A
Peak current S80-19	0.26A @ 5ms @ AC230V		2.50A @ 5ms @ DC24V	N/A
Consumption S80-29	30W @ running 3.9W holding		28W @ running 2.10W @holding	N/A
Peak current S80-29	0.52A @ 5ms @ AC230V		4.5A @ 5ms @ DC24V	N/A
Fuse S80-19	2A		5A	N/A
Fuse S80-29	10A		10A	N/A
Maximum Break Torque Nm	90		90	N/A
Run & Reseat Torque Nm	80		80	
Manual operation	Yes, by hexagonal wrench (supplied in clip) when no power is being applied			
Run time 0-90 degree S80-19	≈ 5 sec		≈ 5 sec	N/A
Run time 0-90 degree S80-29	≈ 5 sec		≈ 5 sec	N/A

STANDARD FEATURES:

Operating frequency	Not continuous, 75% duty cycle but recommended to allow ≥ 1 minute between cycles. DC uses Brushless Motor		
Position confirmation	Magnetic with digital sensing. No mechanical cams fitted.		
Mounting restriction	None, can be mounted at any angle. Leave room for space to operate manually, and for electrical connection		
Vibration Rating/Tested	10 to 55Hz 1.5mm double amplitude		
ISO:5211	F05 & F07 with 17mm x 21mm deep female drive.		
Working Angle	Factory set at 90° ±2°, maximum angle of rotation 360°		
Smart Screen	1.3" Colour OLED screen with touch buttons used for display and menu to customise functionality of actuator		
Ingress protection	IP67		
Max media temp	≤ 80C		
Ambient temp	-20 to +60C (ABS) -20 to +80C (Aluminium) Non-operating temp ; ≤ -40C to ≥80C		
Cable Length	Supplied without cable, 60-80 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	Plastic (ABS)		
Weight	With standard ABS housing 2.2kg (With optional aluminium housing 3Kg)		
Options	Extended flying lead option, per metre. Aluminium housing. Alarm output relays		

ACTUATOR SPECIFICATIONS



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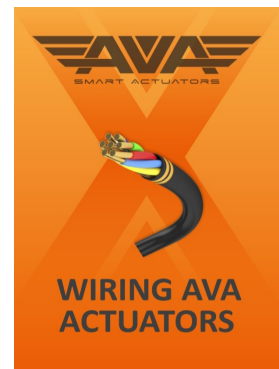
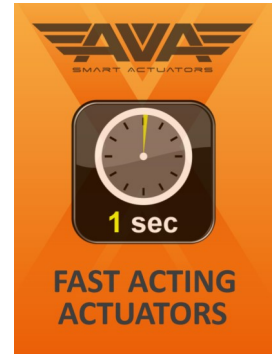
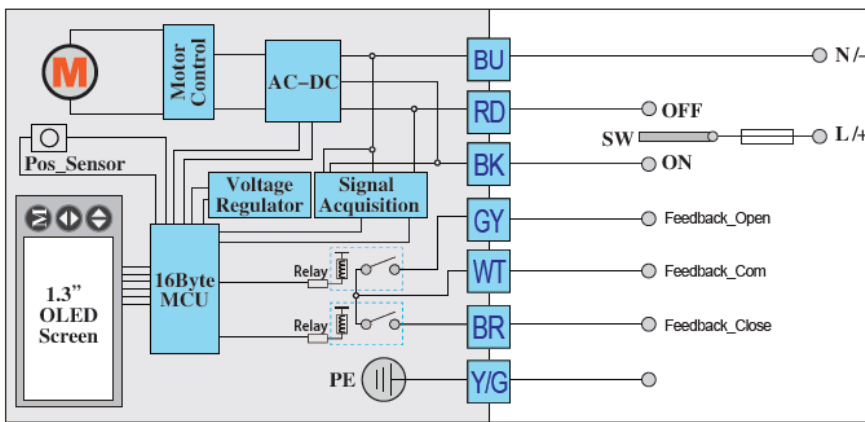
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SERIES: AVA-80

SMART HI SPEED AND MODULATING HI SPEED TECHNICAL DATA

Standard Wiring for our ON-OFF Actuators 8019

Standard Wiring for our AVA Smart 80 series actuators including all voltages, 12VDC, 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. **See page 11 for additional wiring configurations**



WIRING DIAGRAMS

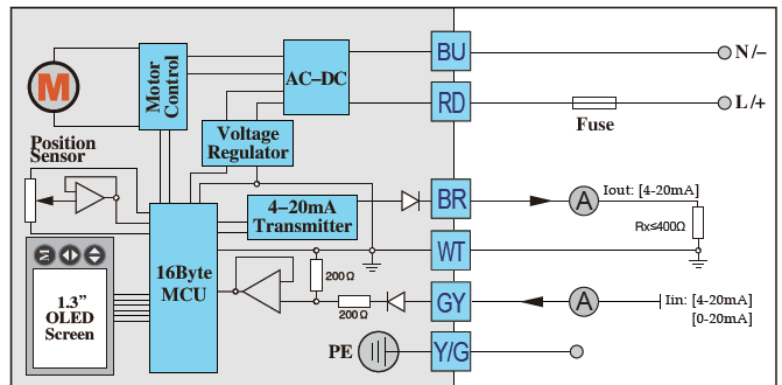
Standard Wiring for our Hi Speed Modulating Actuators S8029

Standard Wiring for our AVA Smart 80 series actuators including all voltages, 12VDC, 24VAC/DC and 95-265VAC 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. **See page 11 for additional wiring configurations**



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.

4-20mA/0-20mA





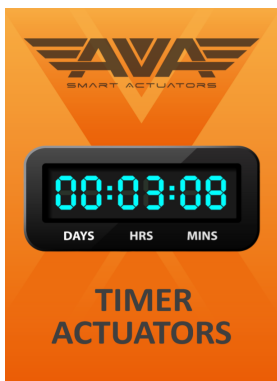
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SERIES: AVA-80

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.



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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ADDITIONAL FUNCTIONALITY FROM AVA



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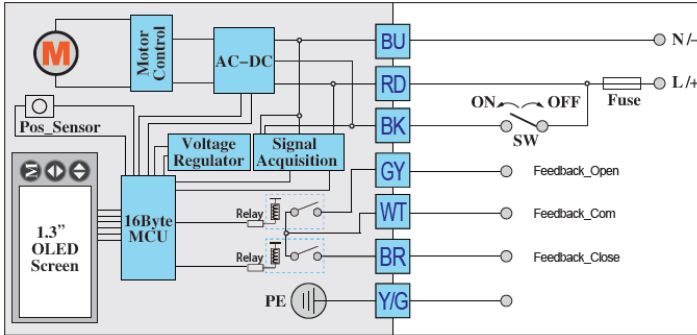
F +44 (0)1386 554227

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.

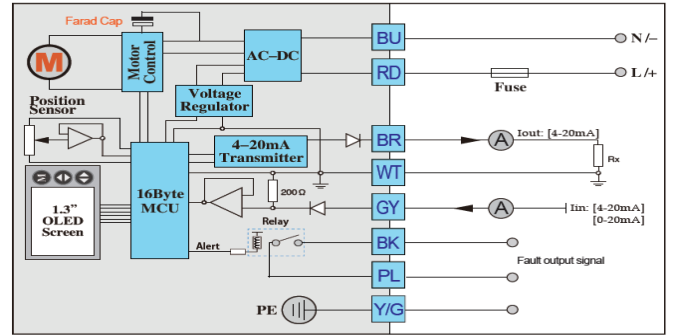
SERIES: AVA-80

ALTERNATIVE WIRING CONFIGURATIONS AVAILABLE FROM AVA

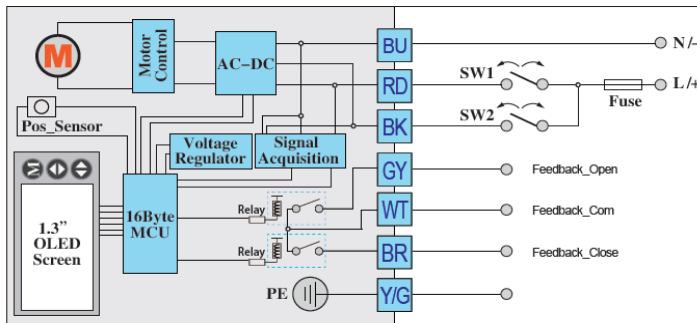
ACTUATOR WIRING OPTIONS



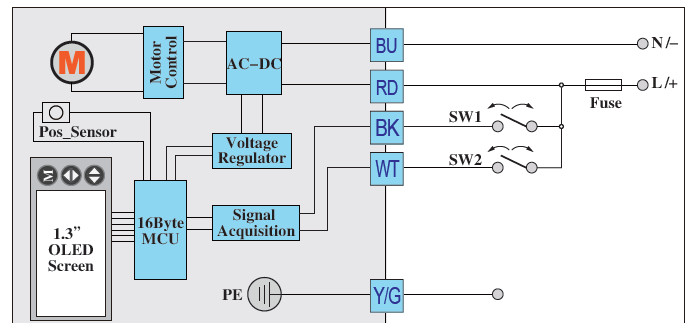
Wiring G: BD3J - SPST / Relay Position Confirmation



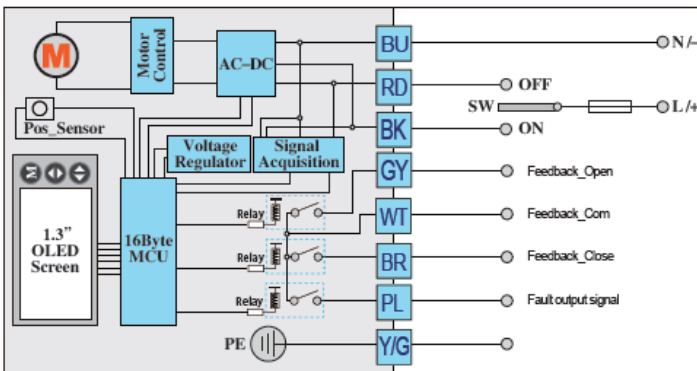
Wiring P2: 4-20ma Failsafe with alarm output



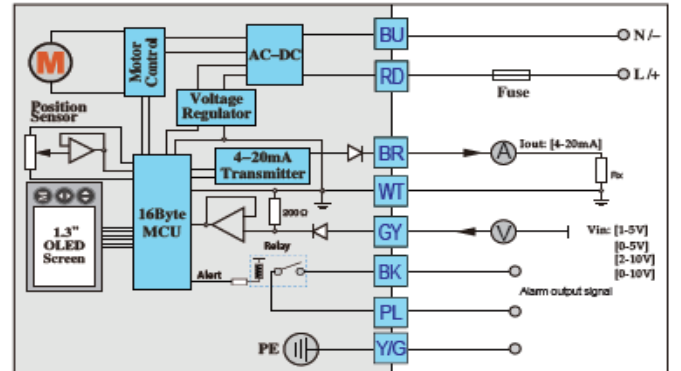
Wiring J: B33J 2 x SPST / Relay Position Confirm (3 position)



Wiring M: B44 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.**

