Main Features: -

- 60Nm Break 50Nm Run Torque
- Basic Series On Off, Failsafe & Hi Speed
- Smart Series On Off, Modulating, Failsafe, Bus Communication and Hi Speed
- F05-07 x 14mm ISO 5211 IP67 Housing

Approvals & Certification Available:



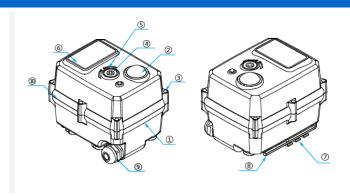


SERIES: AVA-50



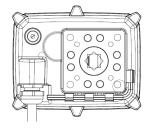


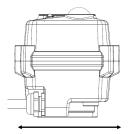
No	PART	MATERIALS
1	ACTUATOR HOUSING	ABS
2	INDICATOR	TRANSPARENT AS
3	SCREWS IN COVER	304
4	MANUAL OVERRIDE SHAFT	304
5	MANUAL OVERRIDE SEAL	NBR
6	LABEL	PVC
8	MANUAL OVERRIDE WRENCH	STEEL
9	WEATHERPROOF CABLE CONNECTOR	NYLON
10	COVER SEAL	NBR

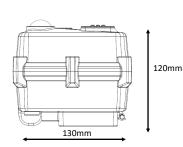


DIMENSIONS









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











🗈 sales@allvalves.co.uk







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-50

BASIC ON OFF AND FAILSAFE ACTUATOR SERIES TECHNICAL DATA

Specification		AC 1ph 50/60Hz			DC
•	AC230V		AC24V	DC24V	
Rated Voltage		AC110V	_		DC12V
Voltage Range	95-265V	95-265V	18-26V	22-32V	22-32V
Consumption B50	10.8W Run /	10.8W Run /	10.8W Run /	10.8W Run /	10.8W Run /
Peak current B50	1.44W hold 0.18A @5ms	1.44W hold 0.83A @ 5ms	1.92W hold 0.83A @ 5ms	1.92W hold 0.83A @ 5ms	1.92W hold 0.83A @ 5ms
Consumption B54		_	_		-
Consumption B54	40W Running/ 1.92W hold	40W Running/ 1.92W hold	40W Running/ 1.92W hold	39W Running/ 1.44W hold	39W Running/ 1.44W
Peak current B54	1.6 @ 5ms	1.6 @ 5ms	1.6 @ 5ms	1.8 @ 5ms	1.8 @ 5ms
Fuse B50	2A	2A	2A	4A	4A
Fuse B54	2A	2A	2A	10A	10A
Maximum Break Torque Nm		60Nm		60Nm	60Nm
Run & Reseat Torque Nm	50Nm		5	50Nm	
Manual operation	Yes, by hexagonal wrench (supplied in clip) when no power is being applied				
Run time B50	10-12 Seconds 10-12 Seconds		Seconds		
Run time B54	10-15 Seconds		10-15 Seconds		
STANDARD FEATURES:					
Operating frequency	Not continuous, allow	r ≥ 1 minute between cy	cles		
Position confirmation	Mechanically driven d	lome style visual 2 colou	r indicator		
Mounting restriction	None, can be mounte	d at any angle. Leave ro	om for space to operate ma	anually, and for electrica	l connection
End Position indication	Micro-switches opera	ted by adjustable intern	al cams , set slightly ahead	of the final motor stop p	osition.
ISO:5211	F05 & F07				
Working Angle	Factory set at 90° ±2°	, maximum angle of rota	ation 360°		
Female drive	14mm x 17mm deep				
Ingress protection	IP67				
Max media temp	≤ 80C				
Ambient temp	-20 to +60C (ABS) -	20 to +80C (Aluminium)	Non-operating temp ; ≤ -4	0C to ≥80C	
Cable Length	Flying lead 0.8m as st	andard with 7 core cable	e 0.2mm voltage rated AC3	00V	
A college of the control of	5-95% RH non-conder	nsing			
Ambient humidity	No, prohibited. Do not use in hazardous areas				
Explosion proof	No, prohibited. Do no	t use in hazardous areas	5		
<u> </u>	No, prohibited. Do no	t use in hazardous areas	3		

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

With standard ABS housing 0.78kg (With optional aluminium housing 0.98kg)

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 failsafe 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.





















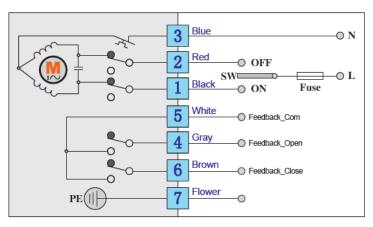
AVA is a revolutionary range of compact actuators offering 20Nm through to 400Nm with On Off, Failsafe, Modulating, Hi Speed functionality. All actuators are IP67 as standard, ISO 5211 direct mount.

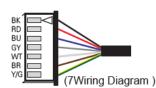
SERIES: AVA-50

BASIC ON OFF AND FAILSAFE ACTUATOR SERIES TECHNICAL DATA

Standard Wiring for our ON-OFF Actuators B50

Standard Wiring for our AVA Basic 50 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.









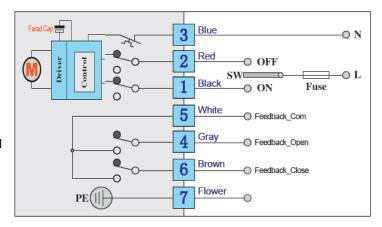




Standard Wiring for our FAILSAFE Actuators B54

Standard Wiring for our AVA Basic 54 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.

















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-50

SMART ON OFF AND SMART FAILSAFE ACTUATOR SERIES TECHNICAL DATA

	Nm SMART ON-OFF & AVA S50			
Specification	High Voltage		w Voltage	
Rated Voltage	95-265VAC	24VAC/DC	DC12V	
Voltage Range	95-265V	18-26VAC / 22-32VDC	12VDC	
Consumption S5010	35W Run / 1.44W hold	10.8W Run / 1.92W hold	10.8W Run / 1.92W hold	
Peak current S5010	35mA @ 5ms @ AC 230V 75ma 110V	0.83A @ 5ms DC24V	0.83A @ 5ms DC12V	
Consumption S5014	40W Run / 1.92W Hold	39W Run / 1.44W Hold	39W Run / 1.44W Hold	
Peak current S5014	0.18A @ 5ms 230V	1.8A @ 5ms 24VDC	1.8A @ 5ms 24VDC	
Fuse S5010	2A	4A	4A	
Fuse S5014	2A	10A	10A	
Maximum Break Torque Nm	60Nm	60Nm	60Nm	
Run & Reseat Torque Nm	50Nm 50Nm			
Manual operation	Yes, by hexagonal wrench (supplied in clip) when no power is being applied			
Run time 0-90 degree S5010	10-12 Seconds	10-12 Seconds	10-12 Seconds	
Run time 0-90 degree S5014	10-15 Seconds	10-15 Seconds	10-15 Seconds	
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 mechan	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			
End Position indication	Micro-switches operated by adjustable internal cams , set slightly ahead of the final motor stop position.			
ISO:5211	F05 & F07 with 14mm x 17mm deep fem	F05 & F07 with 14mm x 17mm 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	Flying lead 0.8m as standard with 7 core cable 0.2mm voltage rated AC300V			
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 0.78kg (With optional aluminium housing 0.98kg)			
Options	Extended flying lead option, per metre. A	Extended flying lead option, per metre. Alarm output relays. LED Status light.		











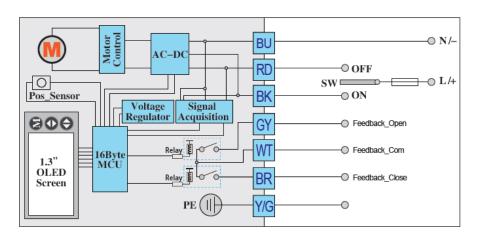
AVA is a revolutionary range of compact actuators offering 20Nm through to 400Nm with On Off, Failsafe, Modulating, Hi Speed functionality. All actuators are IP67 as standard, ISO 5211 direct mount.

SERIES: AVA-50

SMART ON OFF AND SMART FAILSAFE ACTUATOR SERIES TECHNICAL DATA

Standard Wiring for our ON-OFF Actuators 5010

Standard Wiring for our AVA Smart 50 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*







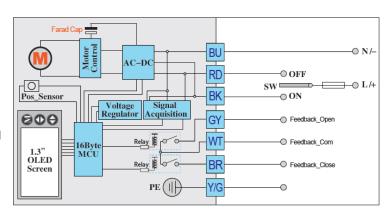




Standard Wiring for our FAILSAFE Actuators \$5014

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.

















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-50

SMART MODULATING AND MODULATING FAILSAFE TECHNICAL DATA

Specification	High Voltage	Low	v Voltage
Rated Voltage	95-265VAC	24VAC/DC	DC12V
/oltage Range	95-265V	18-26VAC / 22-32VDC	12VDC
Consumption S5010	35W Run / 1.44W hold	10.8W Run / 1.92W hold	10.8W Run / 1.92W hold
Peak current S5010	35mA @ 5ms @ AC 230V 75ma 110V	0.83A @ 5ms DC24V	0.83A @ 5ms DC12V
Consumption S5014	40W Run / 1.92W Hold	39W Run / 1.44W Hold	39W Run / 1.44W Hold
Peak current S5014	0.18A @ 5ms 230V	1.8A @ 5ms 24VDC	1.8A @ 5ms 24VDC
Fuse \$5010	2A	4A	4A
Fuse S5014	2A	10A	10A
Maximum Break Torque Nm	60Nm	60Nm	60Nm
Run & Reseat Torque Nm	50Nm 50Nm		
Manual operation	Yes, by hexagonal wrench (supplied in clip) when no power is being applied		
Run time 0-90 degree S5010	10-12 Seconds	10-12 Seconds	10-12 Seconds
Run time 0-90 degree S5014	10-15 Seconds	10-15 Seconds	10-15 Seconds
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		
End Position indication	Micro-switches operated by adjustable internal cams , set slightly ahead of the final motor stop position.		
SO:5211	F05 & F07 with 14mm x 17mm 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		
ngress protection	IP67		
Max media temp	≤ 80C		
Ambient temp	-20 to +60C (ABS) -20 to +80C (Aluminium) Non-operating temp ; ≤ -40C to ≥80C		
Cable Length	Flying lead 0.8m as standard with 7 core cable 0.2mm voltage rated AC300V		
Ambient humidity	5-95% RH non-condensing		
Explosion proof	No, prohibited. Do not use in hazardous areas		
Housing	Plastic (ABS)		
Matala	With standard ABS housing 0.78kg (With optional aluminium housing 0.98kg)		
Weight	With Standard Abs Housing 0.76kg (With	optional aluminum nousing 0.36kg)	















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SERIES: AVA-50

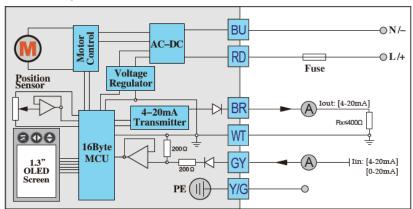
SMART MODULATING AND MODULATING FAILSAFE TECHNICAL DATA

Standard Wiring for our Modulating Actuators 5025

Standard Wiring for our AVA Smart 50 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 13 for additional wiring configurations

MODULATING ACTUATORS

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.



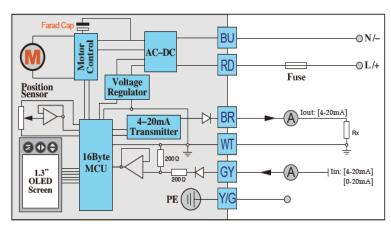
FAIL-SAFE ACTUATORS



Standard Wiring for our FAILSAFE Actuators \$5026

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-50

SMART HI SPEED AND MODULATING HI SPEED TECHNICAL DATA

pecification	High Voltage	Low	Low Voltage	
Rated Voltage	95-265VAC	24VAC/DC	DC12V	
oltage Range	95-265V	18-26VAC / 22-32VDC	12VDC	
Consumption S5025	35W Run / 1.44W hold	10.8W Run / 1.92W hold	10.8W Run / 1.92W hold	
eak current S5025	35mA @ 5ms @ AC 230V 75ma 110V	0.83A @ 5ms DC24V	0.83A @ 5ms DC12V	
Consumption S5026	40W Run / 1.92W Hold	39W Run / 1.44W Hold	39W Run / 1.44W Hold	
Peak current S5026	0.18A @ 5ms 230V	1.8A @ 5ms 24VDC	1.8A @ 5ms 24VDC	
Fuse S5025	2A	4A	4A	
Fuse S5026	2A	10A	10A	
Maximum Break Torque Nm	60Nm	60Nm	60Nm	
Run & Reseat Torque Nm	50Nm 50Nm			
Manual operation	Yes, by hexagonal wrench (supplied in clip) when no power is being applied			
Run time 0-90 degree S5025	10-12 Seconds	10-12 Seconds	10-12 Seconds	
Run time 0-90 degree S5026	10-15 Seconds	10-15 Seconds	10-15 Seconds	
STANDARD FEATURES:				
Operating frequency	Not continuous, 75% duty cycle but recon	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			
End Position indication	Micro-switches operated by adjustable internal cams , set slightly ahead of the final motor stop position.			
SO:5211	F05 & F07 with 14mm x 17mm deep fema	F05 & F07 with 14mm x 17mm 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			
ngress protection	IP67			
Max media temp	≤ 80C			
Ambient temp	-20 to +60C (ABS) -20 to +80C (Aluminium) Non-operating temp ; ≤ -40C to ≥80C			
Cable Length	Flying lead 0.8m as standard with 7 core cable 0.2mm voltage rated AC300V			
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 0.78kg (With optional aluminium housing 0.98kg)			











E sales@allvalves.co.uk







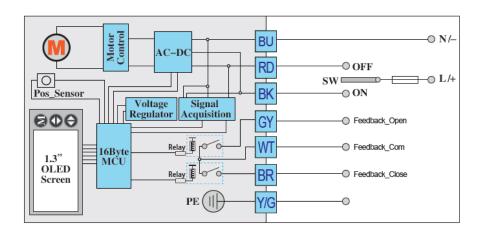
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SERIES: AVA-50

SMART HI SPEED AND MODULATING HI SPEED TECHNICAL DATA

Standard Wiring for our ON-OFF Actuators 5019

Standard Wiring for our AVA Smart 50 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











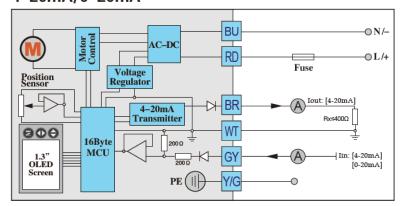
Standard Wiring for our Hi Speed Modulating Actuators \$5029

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

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

















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-50

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.

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















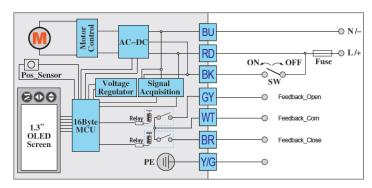




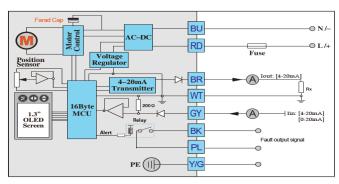
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SERIES: AVA-50

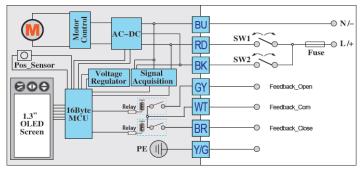
ALTERNATIVE WIRING CONFIGURATIONS AVAILABLE FROM AVA



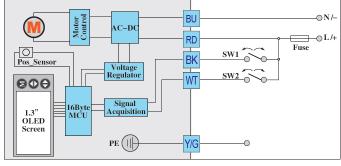
Wiring G: BD3J - SPST / Relay Position Confirmation



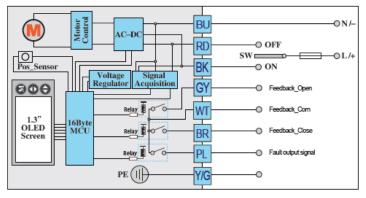
Wiring P2: 4-20ma Failsafe with alarm output



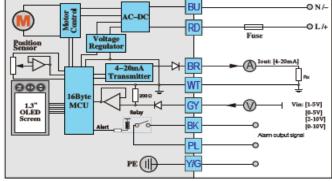
Wiring J: B33J 2 x SPST / Relay Position Confirm (3 position)



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

WIRING AVA ACTUATORS

AVA reseller for lead time on non stock wiring configurations.



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