



## Main Features:-

- ◆ 250Nm Break - 200Nm Run Torque
- ◆ Basic Series On Off, & Hi Speed
- ◆ Smart Series On Off, Modulating,
- ◆ F07-10 x 22mm ISO 5211 - IP67 Housing
- ◆ New 200Nm series coming Q3-Q4 2020

Approvals & Certification Available:



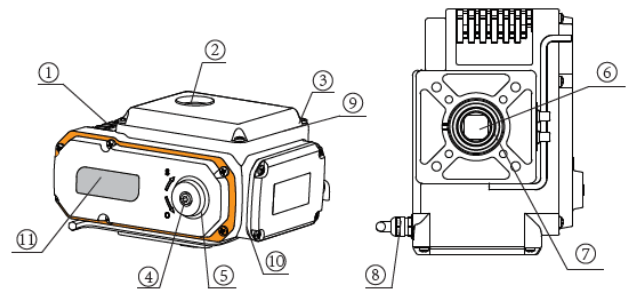
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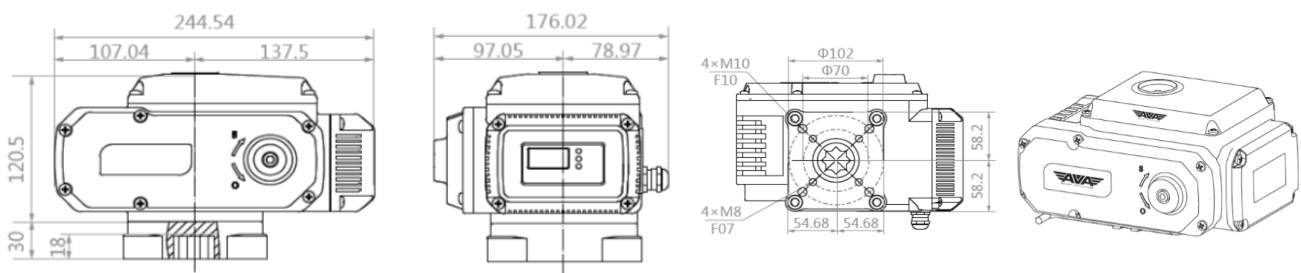
## SERIES: AVA-200

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-200

### BASIC ON OFF AND FAILSAFE ACTUATOR SERIES TECHNICAL DATA

| Model: AVA 200 - 200Nm 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 B200                             | 150W@ running<br>0.0W hold   | 150W@ running<br>0.0W hold | N/A   | 120w running @<br>1.5w holding | N/A              |
| Peak current B200                            | 0.7A @ 5ms   | 0.7A @ 5ms                 | N/A   | 6A@ 5ms                        | N/A              |
| Fuse B200                                    | 5A   | 10A                        | N/A   | 10A                            | N/A              |
| Maximum Break Torque Nm                      | 250Nm  |                            |       | 250Nm                          | N/A              |
| Run & Reseat Torque Nm                       | 200Nm  |                            |       | 200Nm                          |                  |
| Manual operation                             | Yes, by hexagonal wrench (supplied in clip) when no power is being applied |                            |       |                                |                  |
| Run time B200                                | About 30 Seconds   |                            |       | About 30 Seconds               | About 30 Seconds |

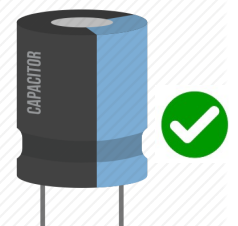
#### STANDARD FEATURES:

|                         |  |
|-------------------------|--|
| Operating frequency     | Not continuous, allow $\geq 1$ 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 $360^\circ$  |
| 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 200NM 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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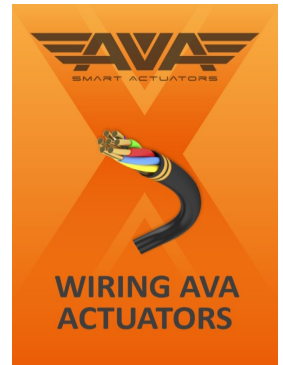
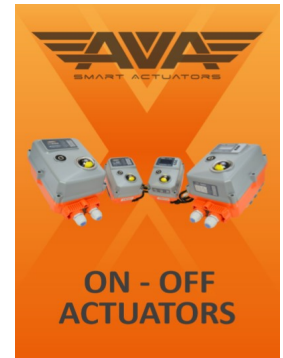
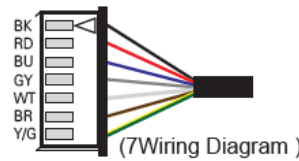
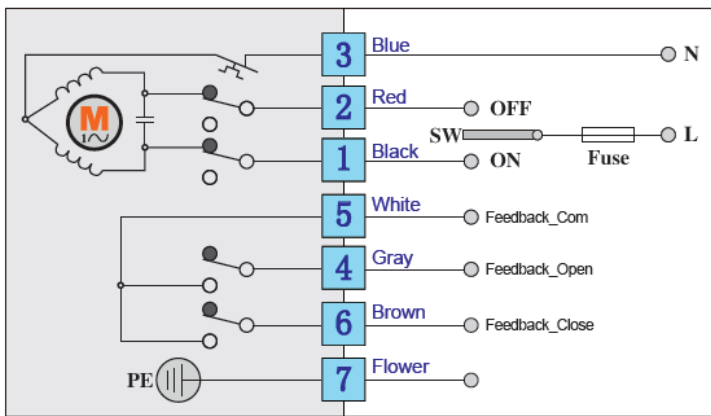
AVA is a revolutionary range of compact actuators offering 20Nm through to 400Nm with On Off, Failsafe, Modulating, Hi Speed functionality. All actuators are IP67 as standard, ISO 5211 direct mount.

## SERIES: AVA-200

### BASIC ON OFF AND FAILSAFE ACTUATOR SERIES TECHNICAL DATA

#### Standard Wiring for our ON-OFF Actuators B200

Standard Wiring for our AVA Basic 200 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.



WIRING DIAGRAMS

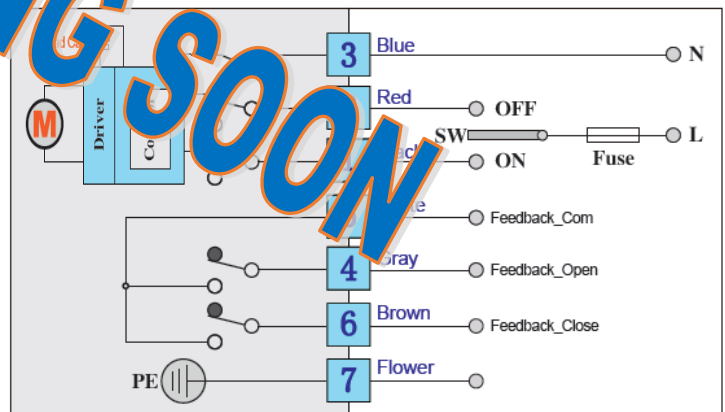


#### Standard Wiring for our FAILSAFE Actuators

Standard Wiring for our AVA Basic 200 series actuators including all voltages, 12VDC, 24VDC, 24VAC, 110VAC, 220VAC, 24VAC/DC and 95-265VAC 50/60Hz. Our Failsafe actuators use a simple 3 wire system for control and 3 wire feedback connection as below. The Failsafe actuators use a capacitor as such will require an initial charge period. After this point, the actuator will close. On removing power from Pin 2 (Red) the actuator will open and on removing power from Pin 2 (Red) the actuator will close. Reconnecting power to Pin 2 will Open the actuator and again charge the capacitor.

COMING SOON

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-200**

## SMART ON OFF AND SMART MODULATING ACTUATOR SERIES TECHNICAL DATA

ACTUATOR SPECIFICATIONS

| Model: AVA 200Nm - 200-10 SMART ON-OFF ACTUATOR & MODULATING 200-25 |  |                            |       |                                |                  |
|---|--|----------------------------|-------|--------------------------------|------------------|
| 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 S200-10 / S200-25                                       | 150W@ running<br>0.0W hold   | 150W@ running<br>0.0W hold | N/A   | 120w running @<br>1.5w holding | N/A              |
| Peak current S200-10 / S200-25                                      | 0.7A @ 5ms   | 0.7A @ 5ms                 | N/A   | 6A@ 5ms                        | N/A              |
| Fuse S200-10 / S200-25  | 5A   | 10A                        | N/A   | 10A                            | N/A              |
| Maximum Break Torque Nm   | 250Nm  |                            |       | 250Nm                          | N/A              |
| Run & Reseat Torque Nm  | 200Nm  |                            |       | 200Nm                          |                  |
| 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 |
| <b>STANDARD FEATURES:</b>   |  |                            |       |                                |                  |
| Operating frequency   | Not continuous, allow $\geq 1$ 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 $360^{\circ}$                                      |                            |       |                                |                  |
| 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.  |                            |       |                                |                  |





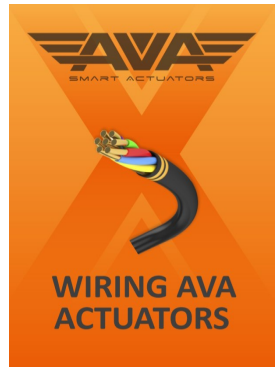
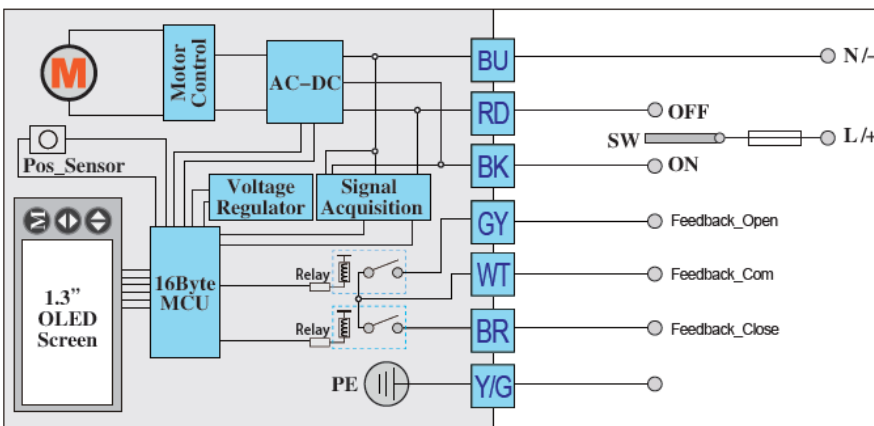
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## SERIES: AVA-200

### SMART ON OFF AND SMART FAILSAFE ACTUATOR SERIES TECHNICAL DATA

#### Standard Wiring for our ON-OFF Actuators 20010

Standard Wiring for our AVA Smart 200 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.

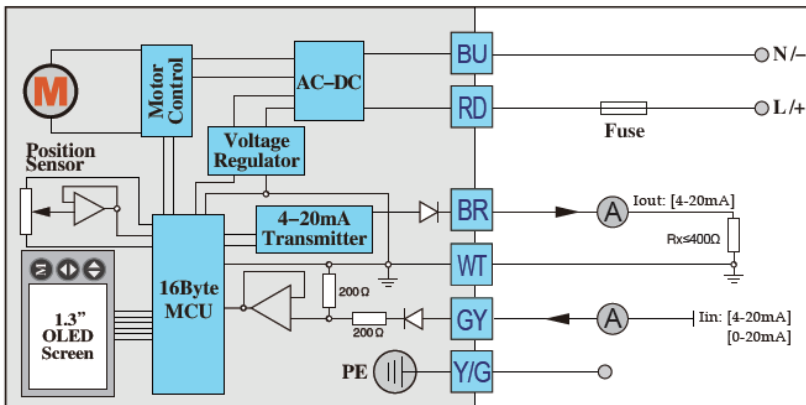


WIRING DIAGRAMS

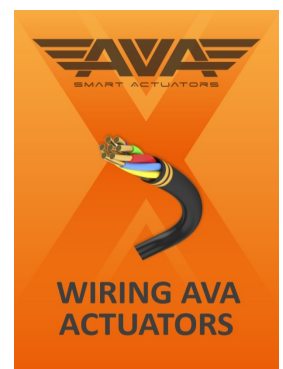
#### Standard Wiring for our Modulating Actuators 20025

Standard Wiring for our AVA Smart 200 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-200**

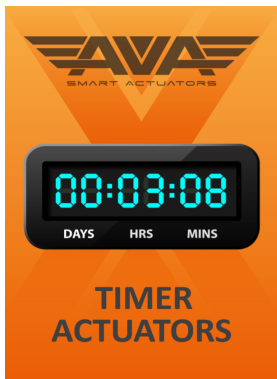
## WHAT ELSE IS AVAILABLE FROM AVA ?

### 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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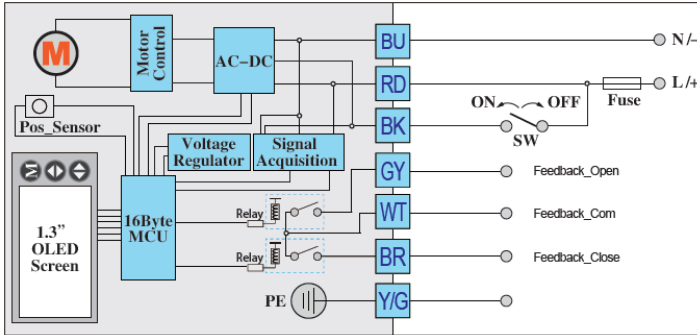


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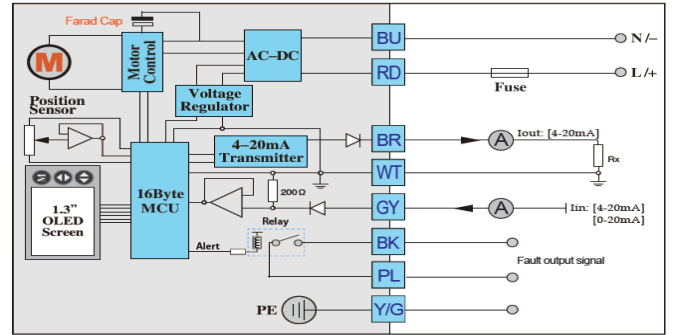
## SERIES: AVA-200

### ALTERNATIVE WRING CONFIGURATIONS AVAILABLE FROM AVA

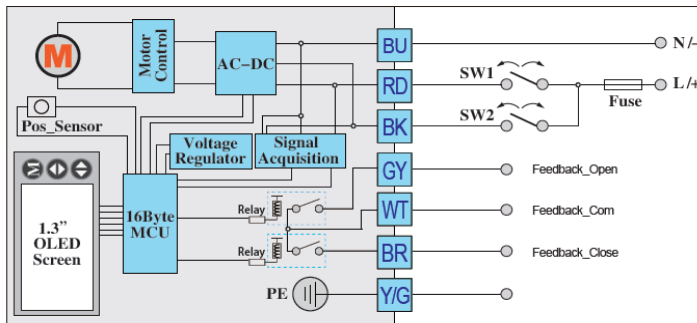
ACTUATOR WRING OPTIONS



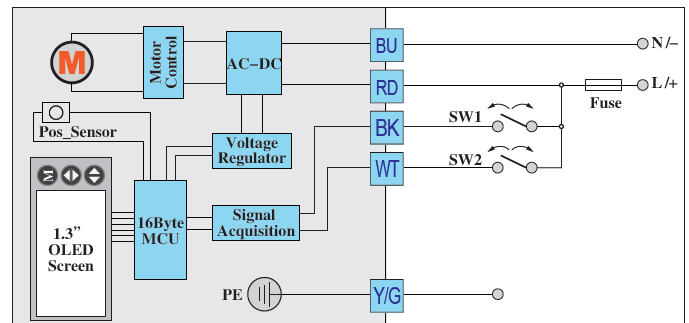
Wiring G: BD3J - SPST / Relay Position Confirmation



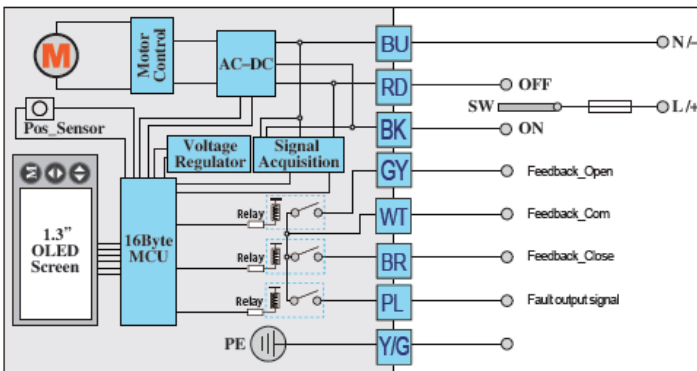
Wiring P2: 4-20ma Failsafe with alarm output



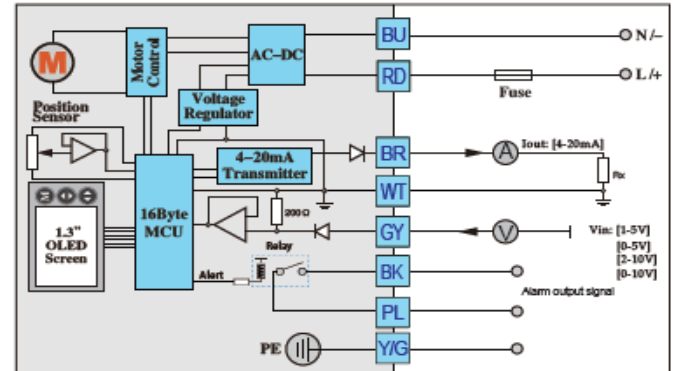
Wiring J: B3J2 2 x SPST / Relay Position Confirm (3 position)



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.**



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