SERIES 200-400 MODULATING

FIRMWARE SUPPORT DOCUMENT



USER GUIDE VERSION 11.4

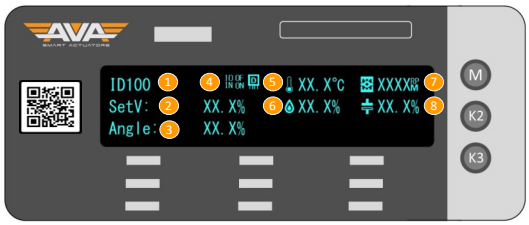
- Screen by screen user guide
- Covers Smart Modulating, Failsafe and Hi Speed
- For On Off, Modbus, Multi Turn or Timer, see specific guides.
- Firmware guides are updated on a continuous basis for on going development and improvement of our actuators.
- We will release an update to show changes between software as and when we release new firmware versions.
- Check our Product Library online at www.avactuators.co.uk/support

Version 001: 13/10/22 subject to change without notice

SMART ACTUATORS WITH OLED SCREEN, TOUCH BUTTONS AND SMARTMENU™

All of our Smart actuators have a colour OLED screen and 3 x touch buttons. The screen will typically tell you all you need to know about your actuator, from the input command to the actual position, any problems with the actuator such as loss of power (if failsafe) or flash ALERT if the actuator as an alarm condition such as an over torque situation or valve jam. As standard, all of our actuators have Local Control as explained below. The touch buttons are used to navigate our onboard firmware to adapt and change the actuator settings to enable you, the user to customise our Smart actuators to your application and own specific requirements. Need to change the working angle, no problem. Need to change the speed, no problem. Need to setup a 3 position configuration, no problem. It's all possible using our Smart actuator series.

How to access the main customer accessible menus:	
Main Menu:	Hold M for 3 seconds and enter the password 333 to access main user Main Menu.
Local Control:	Hold K3 (bottom button) for 3 seconds and enter the password 111 to access Local Control / manual override
Reset:	Need to go back to factory reset/default settings? Hold all 3 buttons for 3 seconds and enter 6666.
Note:	If the actuators is left in a menu screen without a change in 120 seconds, the actuator will exit the menu.





Understanding the default screen: this is the screen you will see when not in a menu but the actuator is powered					
1.	BUS ID: *Only used on Modbus actuators*	5.	Internal Temperature in ℃	9.	Firmware version number shown on power up/exiting menu. Cycles count shows how many times actuator has operated open/close.
2.	Set Value: *Input command and % 0-100*	6.	Internal humidity shown as a %		
3.	Angle: *Actual position of actuator 0-100%*	7.	Motor RPM		
4.	Input Signal type & Precision Sensor	8.	Failsafe Capacitor charge: *if applicable*		

SCAN ME

New feature, we are adding a QR label to all of our products that will enable users of our product to have quicker and more direct access to support documents via our new purpose built QR website. Simply scan the QR code using your Smart phone camera and you will be taken directly to the specific actuator you have on site and will have access to Technical Datasheets, Firmware guides and product support videos.

English version. Available in Spanish

Technical Support: +44(0)1386 556847 | **technical@avactuators.co.uk**

SERIES 200-400 MODULATING

FIRMWARE SUPPORT DOCUMENT

USER GUIDE VERSION 11.4

Version 001: 13/10/22 subject to change without notice

Screen by Screen Firmware guide for Smart Actuators Series 200-400 only	
UserSET PassWord: XXX	User settings are accessed by holding down the 'M' button for ~3 seconds, after this time the screen will request a password. The User Settings password is simply: 333 Use 'K2' to select the column and 'K3' to change the number.
UserSET DisMod: English	Display Mode allows the user to choose English or Chinese. If you hard reset the actuator using 6666 password, this will default the actuator to Chinese. To change back to English, simply hold M, enter 333, press M to go to the first screen and press K2 to select English.
UserSET DeadZone: X.X%	DeadZone is a sensitivity feature which allows for much more accurate positioning. The AVA default setting stops the actuator from hunting on a signal.
UserSET DW_Close: X.X%	DW_Close is the system default parameter. It is not necessary to adjust this value. The system default is 0.8-1.5.
UserSET StallTime: 1X	Stall Time represents the delay between the actuator detecting an error and the actuator triggering the alert signal (LED will light BLUE).
UserSET BrkDelay: 100ms	Break Delay allows the actuator to delay its movement from one position to another.
UserSET PosiOFBrk: 100ms	PosiOFBrk is the brake delay time in the range of Deadzone of full-close. The default is 80ms.
UserSET SWDIR_Dly: 0ms	Switch Direction Delay is similar to the above setting, although this is based on a sudden change of direction rather than end of travel.
UserSET PDChk_Time: 20x	Power Down Check Time dictates the delay on the actuator using the capacitors to close on loss of power. E.g. if loss if power lasts 2 seconds the actuator would not immediately begin to close. **Only applicable if actuator is Failsafe type*

USER GUIDE VERSION 11.4

Version 001: 13/10/22 subject to change without notice

Screen by Screen Firmware guide for Smart Actuators Series 200-400 only	
UserSET PDAction: 20x	Power Down Action allows the user to dictate the failsafe position. Whether that be Open, Close, complete the last signal given or Keep in position. **Only applicable if actuator is Failsafe type*
UserSET CapCharge: XXX%	Failsafe actuator capacitors should be fully charged before the actuator is operable and therefore the default setting reflects this. But with this setting you can change the actuator to power on at an earlier %. **Only applicable if actuator is Failsafe type*
UserSET TestAlarm: ON	To replicate an 'Alert' situation we can set the 'Test Alarm' to 'ON'. This will turn the LED BLUE, if you purchased your actuator with an alarm relay, this will also generate a signal.
UserSET Manu_Spd: XXX%	Manual Speed allows the user to dictate the speed in which the 'Manual' operation runs.
UserSET Posi_4mA: XXX%	This allows you to set your 4mA or 0V position. Default is 0.0%.
UserSET Posi20mA: XXX%	This allows you to set your 20mA or 10V position. Default is 100.0%
UserSET RevDis: Normal	4-20mA: Control direction: Direct acting (Dir), Reverse acting (Rev). Direct acting: 4mA means valve is totally off, 20mA means valve is totally on. Reverse acting: 4mA means valve is totally on, 20mA means valve is totally off.
UserSET DisPosi: Pos420	DisPosi is the setting to displaying mode. This parameter is setting to the display value of Posi 4mA and Posi 20mA. 0-100%:is logic displaying value;Pos420 is practical position value.
UserSET FKChkMod: Pos420	FKChk Mod is setting the mode of feedback. Feedback must match the input.