

Main Features :-

- AVA Basic and Smart Actuated Valves
- IP67 ABS or Aluminium Housing
- Manual Override and internal heater
- On Off, Failsafe, Modulating, Bus and Hi Speed
- Stainless 3pc Full Bore - V Ball Option
- BSP Female Ends, option of NPT, Butt Weld & Socket Weld
- 1/2" to 3" from Stock



TYPE: ACTUATED VALVES

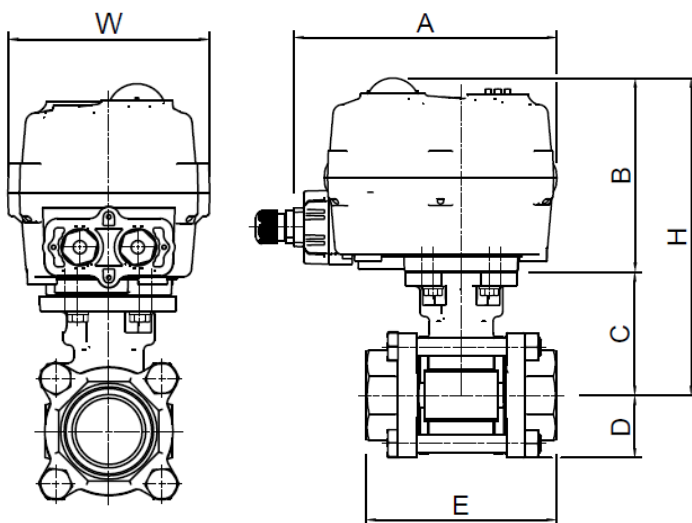
Actuated Valve Overview:-

AVA Electric actuators offer a compact actuated valve solution with almost all valves they are assembled to. AVA basic actuators offer entry level actuator series with a 'Basic' on off and failsafe functionality. Our Smart series offers the addition of an OLED screen with actuator status display, input command display and menu system to customise the actuator functions. This includes changing the working time, working angle and accuracy. AVA smart actuators are available as on off, failsafe, modulating, modulating failsafe, BUS communication, hi speed and wireless.

The valve used in this assembly will typically be our Genebre Stainless Steel 3pc ball valve, full bore with RPTFE seats and Viton seals. Optional ends include NPT threaded ends, butt weld or socket weld or combination of any of these types. Also available with V ball option, 30 degree, 60 degree or 90 degree angle available.

Available with a high / low temperature kit for applications where needed. See dimensions below, typically a kit will add 50mm on smaller sizes and 70mm on larger sizes.

Key Dimensions:-



AVA Actuated Valves - Sizes are in mm					
Size	A	W	E	B	Kit
1/2"	102	70	56	83.3	50
3/4"	102	70	73	83.3	50
1"	102	70	82	83.3	50
1 1/4"	102	70	91	83.3	50
1 1/2"	165	115	104	122	50
2"	165	115	120	122	50
2 1/2"	165	115	155	122	50
3"	165	115	182	122	70
4"	165	115	220	122	70

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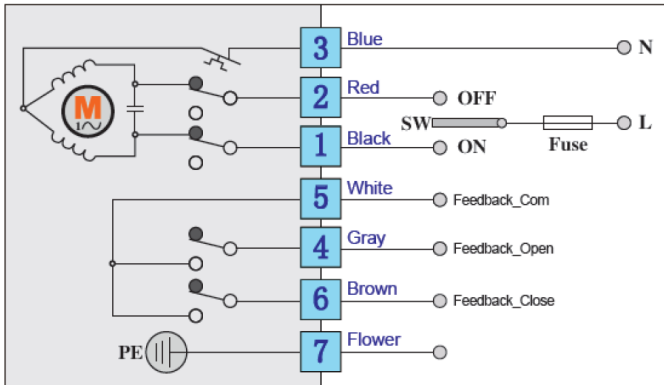
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Wiring and Additional Technical Specifications:-

TYPE: ACTUATED VALVES

Wiring Diagrams :-

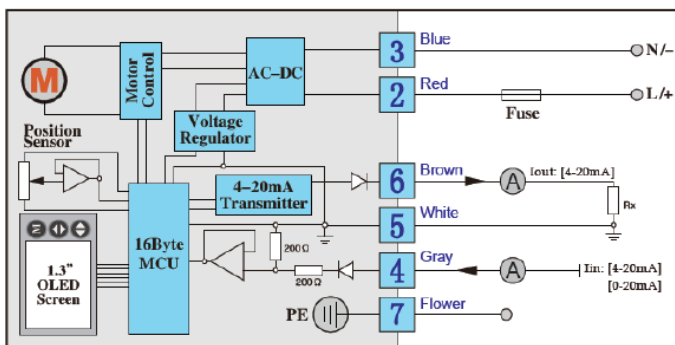
Basic & Smart On Off - Failsafe



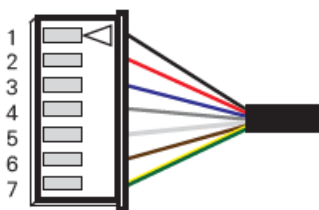
Volt free aux contacts

AVA actuators offer a 3 wire system with a permanent neutral on Blue, switchable Live between pins 2 (Red) and 1 (Black). Actuators are supplied with the a Pin connector as shown below as standard on model 20's. On model 60/110 the actuator has a terminal strip as standard.

Smart Modulating Actuators



AVA Modulating actuators are wired as shown on the left, image shows 4-20ma, check actuator datasheet for other wiring options. Actuators are supplied with the a Pin connector as shown below as standard on model 20's. On model 60/110 the actuator has a terminal strip as standard.

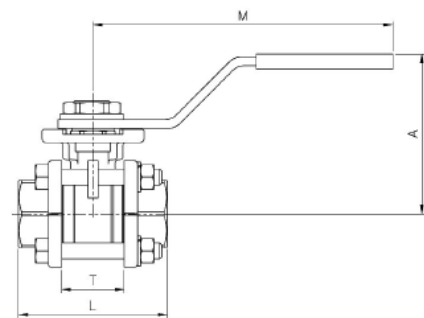
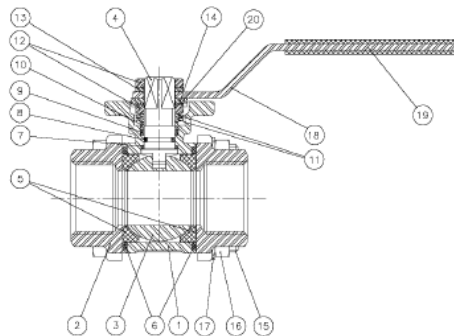


AVA actuators come with the white pin connector shown on the left, this is mainly for our benefit as this allows fast testing when used with our test boxes. This connector can either be utilised or cut to leave bare cable which need terminating. Note that this does NOT invalidate your warranty on the actuator.

IMPORTANT - For Failsafe electric actuators, our 20 Series actuators use an internal capacitor to achieve the failsafe functionality. This means that when you first power the actuators, they will require an initial charge. This is not the same as the 60 /110 series that use a battery for failsafe. The capacitor only needs a 15-30 second initial charge or when first using after a period of time without using. The battery actuators are charged whilst powered and are supplied with charged batteries.

Wiring and Additional Technical Specifications:-

Valve Details :-



TYPE: ACTUATED VALVES

Nº	Denominación / Name	Material	Acabado Superficial / Surface Treatment	Cód. Recambio Spare Part Code
1	Cuerpo / Body	Acero Inox. / Stainless Steel 1.4408	Granallado / Shot blasting	-----
2	Tapa / Cap	Acero Inox. / Stainless Steel 1.4408	Granallado / Shot blasting	-----
3*	Bola / Ball	Acero Inox. / Stainless Steel 1.4408	Pulido / Polishing	2907
4*	Eje / Stem	Acero Inox. / Stainless Steel AISI 316	-----	2905
5*	Asiento / Ball Seat	PTFE + 15% F.V. / G.F.	-----	2820
6*	Junta / Gasket	PTFE + grafito / graphite	-----	2820
7*	Arandela / Thrust Washer	PTFE + grafito / graphite	-----	2820
8*	Tórica / O'ring	FKM	-----	2820
9*	Empaquetadura / Stem packing	PTFE	-----	2820
10	Anillo Prensa / Gland	Acero Inox. / Stainless Steel AISI 304	-----	-----
11	Arandela Belleville / Belleville Washer	Acero Inox. / Stainless Steel AISI 301	-----	-----
12	Tuerca / Nut	Acero Inox. / Stainless Steel AISI 304	-----	-----
13	Arandela / Washer	Acero Inox. / Stainless Steel AISI 304	-----	-----
14	Tope / Stopper	Acero Inox. / Stainless Steel AISI 304	-----	-----
15	Tornillo / Bolt	Acero Inox. / Stainless Steel AISI 304	-----	-----
16	Tuerca / Nut	Acero Inox. / Stainless Steel AISI 304	-----	-----

DIMENSIONES GENERALES / GENERAL DIMENSIONS

Ref	Medida / Size	PN	Paso / Port	Dimensiones / Dimensions (mm)				Peso / Weight (Kg)
				A	L	M	T	
2025 02	1/4"	63	11	60	47.6	112	23	0.390
2025 03	3/8"	63	12.7	60	47.6	112	23	0.380
2025 04	1/2"	63	15	60	56	112	24	0.440
2025 05	3/4"	63	20	70	73	138	30	0.820
2025 06	1"	63	25	70	82	138	33.5	1.020
2025 07	1 ¼"	63	32	88	91	160	41.5	1.790
2025 08	1 ½"	63	40	94	104	205	51.5	2.460
2025 09	2"	63	50	100	120	205	63	3.470
2025 10	2 ½"	63	65	150	155	330	83.5	8.500
2025 11	3"	63	80	165	182	330	100	12.400
2025 12	4"	63	100	175	220	340	118.5	19.650

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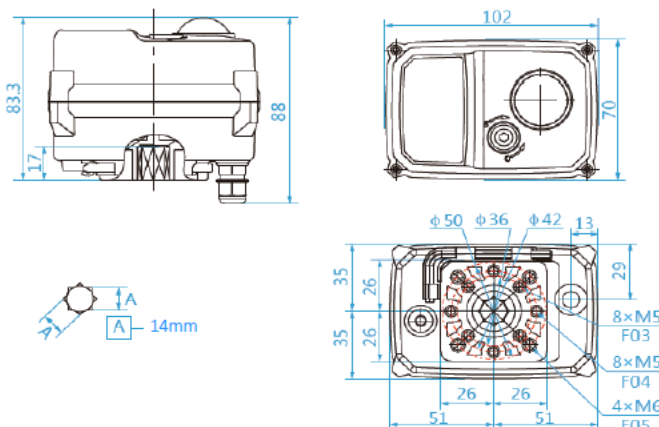
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Wiring and Additional Technical Specifications:-

Actuator Details :- Typical actuator details for on off actuator.

Model:	AVA-B20 20Nm BASIC ON-OFF ELECTRIC ACTUATOR				
	AC 1ph 50/60Hz			DC	
Rated Voltage	AC230V	AC110V	AC24V	DC24V	DC12V
Voltage Range	AC 190-250V	AC90-130V	AC22-28V	DC22-28V	DC10-15V
Consumption	13.2W run, 0W hold	15W run, 0W hold	10.8W run, 0W hold	9.6W run, 0.3W hold	93.5W run, 0.3W hold
Peak current	60mA for 5ms	135mA for 5ms	450mA for 5ms	500mA for 5ms	1A for 5ms
Fuse	1A	1A	2A	2A	2A
Maximum Break Torque Nm	20			20	15
Run & Reseat Torque Nm	15			15	
Manual operation	Yes, by hexagonal wrench (supplied in clip) when no power is being applied				
Run time	≈ 15 sec			≈ 10 sec	≈ 12 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	F03 & F05 (+ F04 which mounts at 45 degrees)				
Working Angle	Factory set at 90° ±2°, maximum angle of rotation 360°				
Female drive	14mm Star (11mm octagon option) x 17mm deep				
Ingress protection	IP67, recommend cover provided if exposed to direct rain or sun				
Max media temp	≤ 80C				
Ambient temp	-20 to +60C (ABS) -20 to +80C (Aluminium)				
Non-operating temp	≤ -40C to ≥80C				
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	Available failsafe using capacitor. See Model AVA-B24 for details				



AVA actuators have various functions and specifications that changed based on voltage, therefore it makes it difficult to cover all specifications for all actuator models. We ask that you see our smart actuator section here for detailed information on actuator specifications including working times, power consumptions etc. For our Smart Actuators, we also offer a range of user guides and videos for the specific actuators.

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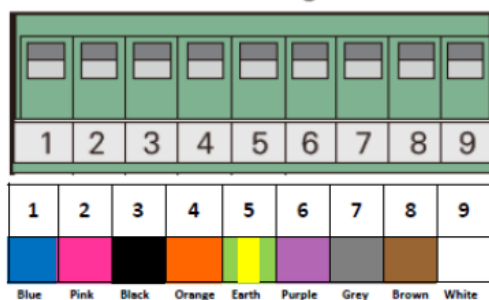
Local controls:



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

AVA smart actuators use an OLED screen and touch button menu system allowing you to change the function of the actuator through changing settings in the software of the actuator. This varies per model, please see specific actuator series for full user guide and screen by screen instructions.

9P-5.08 Terminal diagram



Our 60-110 series utilise a terminal strip, as shown above. The actuators as standard come with conduit entry 'Wiring Box', simply remove via 4 x screws and terminate your cable for power and feedback as required and as per the specific actuator wiring diagrams and IOMs'.

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