



A83 electric actuator



A83 electric actuator for rotary valves, specifically for HVAC market.

50 to 1,300 Nm output torque for on-off type actuators

Waterproof (NEMA 4, 4X, IP65)

AVA controls combines years of proven success and needs of the market, has produced the A83 actuator. This rugged, compact, rectangular and high performance electric actuator for rotary valves delivers highly reliable service at a reduced price.

SPECIFICATIONS

A83 actuators mount direct to AVA valves without using external linkage. The mounting pattern complies with ISO5211.

MOTOR

A83 has a 110 or 220VAC 50/60Hz ± 10% single phase motor as standard.

24VDC motor shall be available upon request. Motor insulation shall be Class F or better.

The motor shall contain a built-in thermal overload protector of a bi-metallic strip in the

windings set at high 120C or low 80C with automatic reset.

DUTY CYCLE

The duty cycle for intermittent on-off operation shall be 80%(A83-005 to 016) and 50%(A83-025 to 130).

TEMPERATURE RATING

A83 actuators shall be designed for temperature ranges of -40°C to +70°C.

SPUR GEAR SYSTEM

A83 shall have a self locking gear train consisting of a worm and worm gear output drive mechanism. The spur gear train shall have precision cut multi-staged gears which will withstand locked rotor conditions. The gear train is permanently lubricated at the factory.

CONDUIT ENTRIES

A83 shall have conduit entries PF 1/2", offer to easy wiring connection.

TRAVEL LIMIT SWITCHES

A83 provides two SPDT switches 10A at 250VAC. Travel limit switches shall limit actuator in both the open and closed position of valve travel, provide the non-voltages feedback signals.

HOUSING SEAL FOR WATERTIGHT ENCLOSURE

The housing seal provides a waterproof enclosure and prevents internal corrosion. This seal is the best design for watertight enclosures.

VALVE STATUS DISPLAY

A83 has a highly visible clear polycarbonate display prominently labeled and color coded to indicate valve position throughout the full range of travel.

ENCLOSURE

The die-cast aluminum enclosure shall be waterproof (NEMA 4, 4X, IP65) rated and high quality polyester powder coated for exceptional corrosion, wear and impact.

HEATER

A83 has a pre-wired heater with thermostat control to prevent condensation buildup. Rated output is 10W at 110 or 220VAC.

MANUAL OVERRIDE

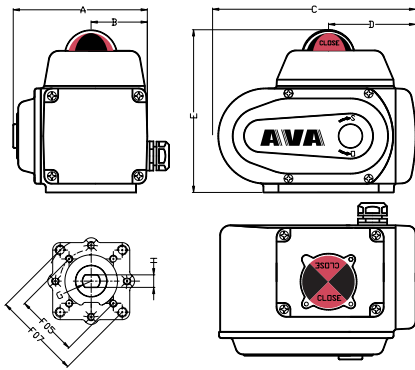
Upon power outage, A83 actuators shall be equipped with a simple removable lever to rotate the valve in the desired position.

Actuator Series	Output torque Nm	Stroking time-90°	Motor current rating (A) 220Vac 50/60Hz	Base ISO 5211	Bolts Sizes	Weight (Kg)	AVA Valve Sizes for Direct Mounting	A	B	C	D	E
A83-005	50	20S	0.35/0.4	F05,F07	M6,M8	2.7	2-3"	101	45	155	69	150
A83-010	100	30S	0.35/0.4	F07	M8	3.9	4"	115	52	208	110	150
A83-016	160	30S	0.35/0.4	F07	M8	4	5-6"	115	52	208	110	150
A83-025	250	30S	0.9/1.0	F10, F12	M10,M12	7.1	8"	153	63	256	133	170
A83-060	600	30S	1.3/1.4	F10, F12	M10,M12	8	10-12"	153	63	256	133	170
A83-130	1300	50S	1.5/1.6	F12	M12	12	14-16"	156	61	280	152	192

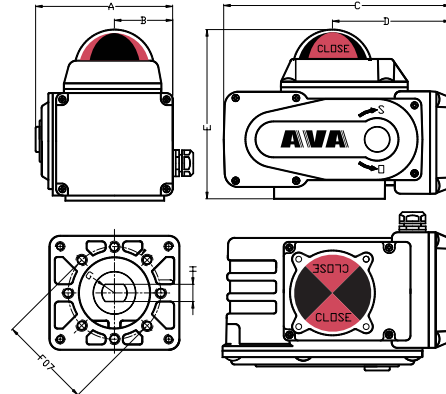
NOTE: Dimensions are in millimeters

DIMENSIONS

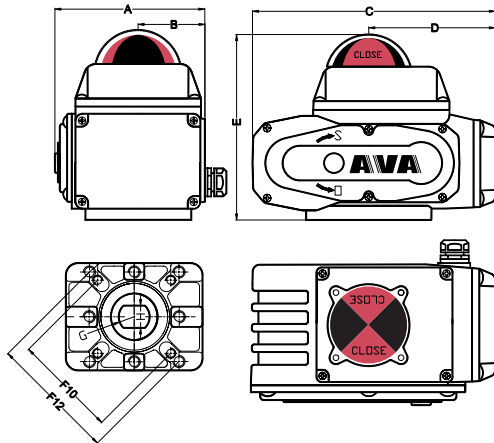
A83-005



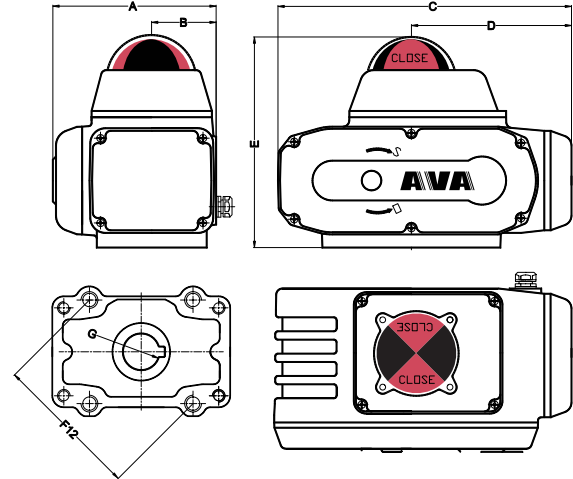
A83-010, 016



A83-025, 060

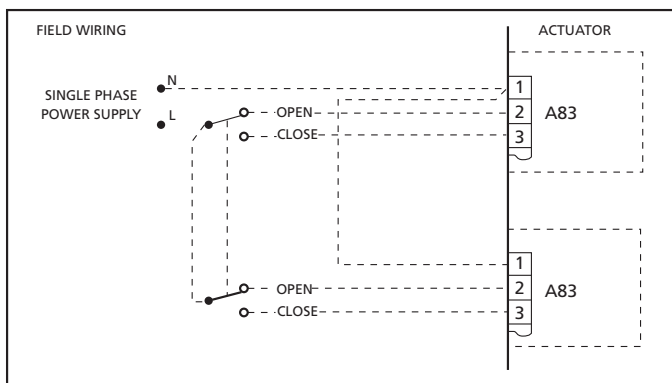


A83-130



MULTIPLE ACTUATOR WIRING DIAGRAMS

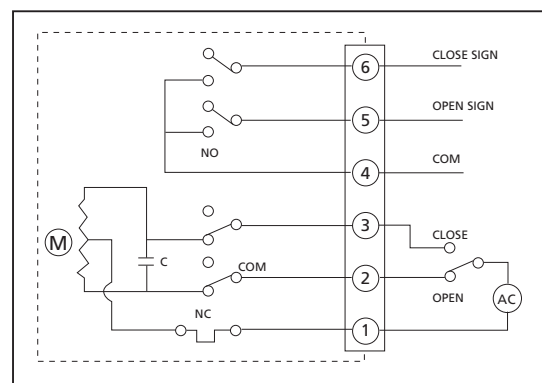
For correct installation use a multiple pole switch or relay as shown below. This wiring diagram is shown with two actuators.



Do Not parallel wire multiple On/Off duty actuators

CUSTOMER WIRING DIAGRAMS

Standard On-Off



The data presented in this bulletin is for general use only.

Consult AVA Controls representatives or factory for the specific performance data and material selection for your particular applications.



AVA CONTROLS

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