

## Installation Notices

1. Please read operation manual and wiring diagram carefully before installation.
2. Verify that supply voltage is in accordance with the data on nameplate to prevent short circuit or electrical / electronic parts damage caused by incorrect power input.
3. Turn power off before wiring or maintenance.
4. Connect the ground wire to PE point inside the electric actuator.
5. To avoid functional failure caused by static, do not touch any components on the PCB with metal tools or bare hands.
6. Do not parallel wire multiple actuators together without using an extra relay.
7. Use suitable water-proof cable gland to ensure it fits the conduit entry size, diameter of the cable and the enclosure protection of the actuator when wiring. The water-proof cable gland must be tightened and flattened to the cable after wiring procedure and use original black water-proof plug to seal unused conduit entry and fasten the top cover of the actuator to prevent dust or water from entering the actuator. The red plastic dust-proof plug is not meant for long-term use. Replace it with suitable water-proof connector to ensure the enclosure protection rating.
8. Actuator should be installed in an upright or horizontal position. Do not mount upside down or below a horizontal position.
9. These units are not designed to operate in vacuum spaces or where an explosive atmosphere exists.
10. Periodically inspect actuator enclosure to prevent dust from accumulating.
11. Please obey the local environment regulation for equipment scrapping.

## Mounting instructions

**⚠ Turn power off before making the electrical connection or removing the cover.**

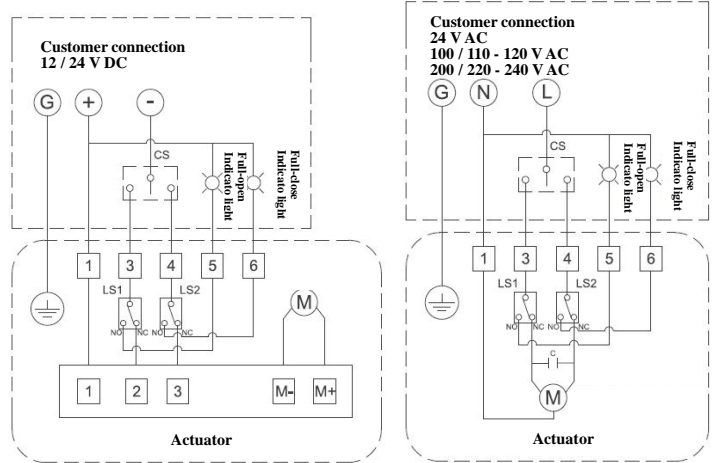
1. Connect the ground wire to PE point placed on middle metal plate inside the electric actuator (a green screw).
2. The standard conduit entrance is 1/4" PF, please use correct size of fittings so as to not damage the threads.
3. Verify the supply power is in accordance with the data on the nameplate to prevent a short circuit and an electrical shock.
 

**⚠ Do not apply power to actuator before wiring, otherwise it can cause an electrical shock or damage components of the actuator.**
4. Use proper sealant to seal the conduit connection after wiring procedure to prevent dust or water from entering the actuator.
 

**⚠ The red dustproof plug and black waterproof plug should not be removed until the actuator is ready to be cabled. Use suitable cable glands with IP 67 protection when wiring and seal the unused cable entry with original black waterproof plug. Please ensure that the O-ring seal is in good condition prior to cover installation.**
5. Assemble the cover and cover screws firmly per below required torque after setting.

Screw size	Torque	
	Nm	in-lb
M4	1.3	12

## Circuit Diagram



- It is recommended to use proper sizes of wire and fuse to prevent actuator failure. The specifications of wire and fuse are showed as below table.

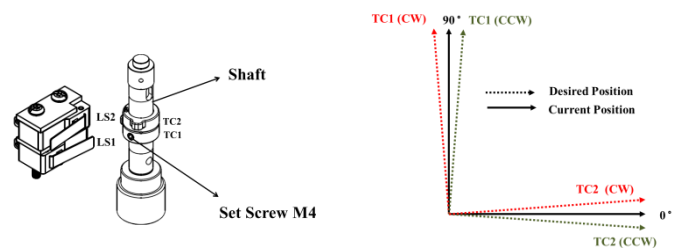
Wiring connection:  
 #N connect to #1.  
 #L connect to #3 for open.  
 #L connect to #4 for close.  
 LS – limit switch.  
 CS –control switch or relay.

Wire gauge	Max current	fuse
24 (0.205mm <sup>2</sup> )	3A	2A

## Fully-open and Fully-closed Position Setting

- The power must be off during this procedure so as to avoid damage to the actuator.
- All steps below must be completed before normal operation.

Actuators come with two limit switches. LS1 is for fully-open and LS2 is for fully-closed positioning. They limit the fully-open and fully-closed travel range by disabling the electric motor.



### Adjustment Steps

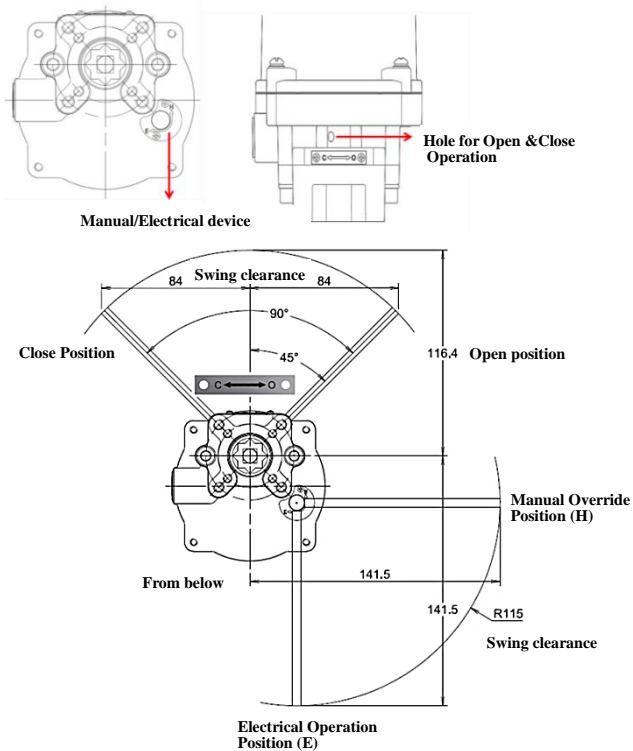
Tool : 2 mm Allen Key

- Turn power off.
- Refer to the illustrations to adjust. TC1-TC2 to set the fully-open and fully-closed position.
- Supply the power to confirm that the limit switches achieve the fully open-close stroke.
- The setting procedure is now completed.

**TC2 "CLOSE"** Clockwise : decrease closing degree.  
 Counter-clockwise : increase closing degree.

**TC1 "OPEN"** Clockwise : increase opening degree.  
 Counter-clockwise : decrease opening degree.

## Manual Operation Instructions



1. Switch the manual/electrical device from electrical operation (E) to manual operation (H) with tool attached.
2. Insert the tool into the hole for open & close operation.
3. Switch the device back to electrical operation (E) mode after the manual operation (H) is completed.

**⚠ After using the manual override for positioning, switch it back to electrical operation (E) to allow the actuator function again under power.**