

**EMA  
Spring Return Actuator  
Installation Instructions**

**SPECIFICATIONS**

These actuators meet the requirements for damper control or valve control applications where it is desirable to power the crank arm in one direction (CW) to 90 degrees and return it to a normally closed position (CCW) via spring return upon power interruption.

**EMA 405 & EMA 405-1**

**Electrical Ratings**

120 Vac (+10% / -15%); 60 Hz

**Power Consumption**

45 VA Running

45 VA Holding

**Electrical Connection**

1/2" NPT conduit knockout

**Ambient Temperature**

-40°F to +136°F (-40°C to +58°C)

**Enclosure Rating**

NEMA Type 4

**Torque**

16 in/lb output

**Approvals**

UL Listed; CSA Certified  

**EMA 418 & EMA 418-2**

**Electrical Ratings**

120 Vac (+10% / -15%); 60 Hz

**Power Consumption**

120 VA Running

42 VA Holding

**Electrical Connection**

1/2" NPT conduit knockout

**Ambient Temperature**

-40°F to +136°F (-40°C to +58°C)

**Enclosure Rating**

NEMA Type 4

**Torque**

60 in/lb output

**Approvals**

UL Listed; CSA Certified  


Model Nos.	Travel	Part #	Opening time no load (Seconds)	Opening time full load (Seconds)	Torque (in.- lbs.)	Weight Lbs.
EMA-405	180°	43117	20	60	16	8
EMA-405-1	90°	43117-1	10	60	16	8
EMA-418	180°	43199	20	60	60	8
EMA-418-2	90°	43199-1	10	30	60	8

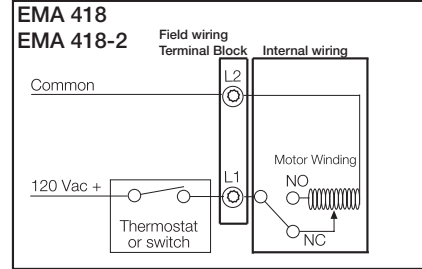
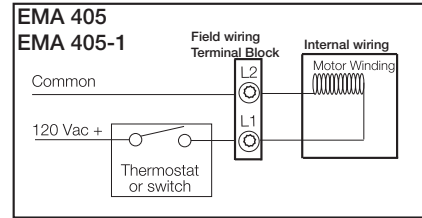
**ATTENTION**

- Read these instructions carefully.
- Failure to follow them and/or improper installation may cause explosion, property damage and injuries.
- Installation must be done with the supervision of a licensed burner technician.
- The system must meet all applicable national and local code requirements such as but not limited to NFPA 70.
- Check the ratings in the specifications to make sure that it is suitable for your application.
- Never perform work if power is applied.
- Once installed, perform a complete checkout.
- Label all wires prior to disconnection when servicing actuators. Wiring errors can cause improper and dangerous operation
- Verify proper operation after servicing.

## WIRING

- Inspect unit before installing, look for broken parts or leaks.
- Disconnect all power to the actuator before wiring to prevent electrical shock and equipment damage.
- Do not exceed the electrical ratings given in the specifications and on the actuator.
- Attach a flexible 1/2" NPT conduit to the actuator. Use NEMA Type 4 compatible type connectors.
- Connect the wiring to the appropriate terminals.

 All wiring must comply with local electrical codes, ordinances and regulations.



## DIMENSIONS

