

# Hoffman Controls

## Installation & Operating Instructions

### 706-123VmA/706-123BVmA Series Electronic Fan Speed Controller

## Installation Instructions

### 1. Mechanical

- A. Select vertical surface, mount 706-123VmA/706-123BVmA to a 4" x 4" electrical box.
- B. Turn line voltage power Off.

### 2. Wiring

Attach 24V AC power, signal input & line voltage power wiring using industry approved connections.

#### Input Signal(s) Wiring

- A. ORG/BLK (orange/black) to 24V AC.
- B. V DC (2 – 10V DC) input signal.
  - 1) (+) V DC to YEL (yellow).
  - 2) (-) V DC to BLU (blue).
  - 3) Tie off GRY (gray).
- C. mA (4 – 20) input signal.
  - 1) (+) mA to YEL.
  - 2) Tie GRY to BLU and attach to (-) of mA signal.
- D. ORG/BLK and BLU (-) V DC are common.

#### Power Wiring

RED – to fan. BLK – to Line.

#### Caution

**Transformer primary MUST BE on the same phase as fan motor.**

### 3. Minimum Fan Speed Adjustment

- A. Turn cut-out pot fully CCW.
- B. Turn Max. pot CCW max.
- C. Set input signal (V DC or mA) at required minimum input value. Do not set below 2 volts or 4 mA input.
- D. Connect power to transformer.
- E. Adjust Min. pot to desired Minimum RPM.

### 4. Maximum Speed Adjustment

- A. Set input signal (V DC or mA) as required maximum input value.
- B. Adjust Max. pot CW to desired maximum RPM. Do not exceed 10 volts or 20mA input.

### 5. Fan Cut-Out

- A. Set input signal (V DC or mA) to point of desired cut-out.
- B. Adjust cut-out pot fully CCW. Motor should be operating.
- C. Slowly rotate cut-out pot CW until the motor cuts out.

### 6. Vary input over selected Min./Max. values and observe fan RPM and cut-out. Repeat adjustments if necessary.

### 7. Final Mounting of Controller

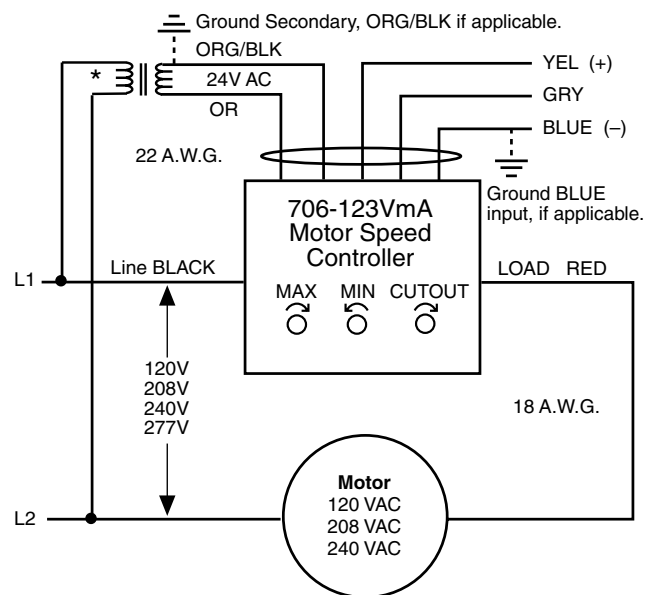
- A. With all wiring connected turn off power, mount controller to 4" x 4" electrical box with wiring inside box. Ensure the controller cover is outside electrical box.
- B. Turn on line voltage (power) to controller/motor.

## Input Signal Connections

Volts	2 - 10 VDC	YEL (+)	BLU (-)
mA	4 - 10 mA	YEL (+)	BLU/GRY (-) tied together

**Note:** ORG/BLK is common internally with BLU (floating ground).

\* Transformer primary must be on same line as motor.



**706-123VmA Typical Wiring**

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