

200-3 Flow Controller

### System Description

The 200-3 Series electronic, pressure independent, VAV, zone controller consists of a flow/sensor logic module and a high torque, low voltage damper actuator.

### Flow/Sensor Logic

The electronic flow control is a multiple purpose flow sensor for variable air volume (VAV) distribution systems. The electronic flow control is capable of precise airflow and temperature regulation within the space being served by the terminal unit.

The 200-3 Flow Controller can provide pressure independent control (with thermostat input), constant volume or constant pressure regulation. The unique “flow through sensor” provides flow or pressure regulation over the entire flow or pressure range.

The velocity sensor responds to flow from 0 – 4000 FPM and to static pressure from 0 – 4.0 inches W.G. The flow or pressure signal is derived from the flow developed by the resulting velocity pressure or static pressure. Averaging, single point, velocity pressure or static pressure pickups are applicable for direct connection to the logic.

The pressure independent control compares the flow signal with the electronic thermostat signal and regulates the appropriate volume of air to the space, regardless of terminal (damper inlet) pressure. This control function is referred to as “Pressure Independent VAV Control”.

The 200-3 Flow Controller, when used in conjunction with the 207 Series Thermostat and 202 Series Interfaces, can provide a wide variety of auxiliary functions. Options typical of auto-changeover, heating stages, offset (setback) and dual flow are available as plug-in interfaces. When Energy Management Systems are utilized, an EMS interface replaces the thermostat.

### Actuator

The 241-2 high torque, magnetic clutch actuator is designed to be used with the 200-3 Flow Controller.

The 241-2 is a direct coupled actuator used to control dampers in VAV terminal units. The actuator mounts directly on the damper shaft. Selectable 45°, 60°, and 90° stroke in either CW or CCW is standard. The actuator features a 35 in.-lb. torque rating. The magnetic coupling provides a 45 in.-lb. (minimum) stall torque. The motor features 2°/sec. rotation timing suitable for use with pressure independent VAV systems.

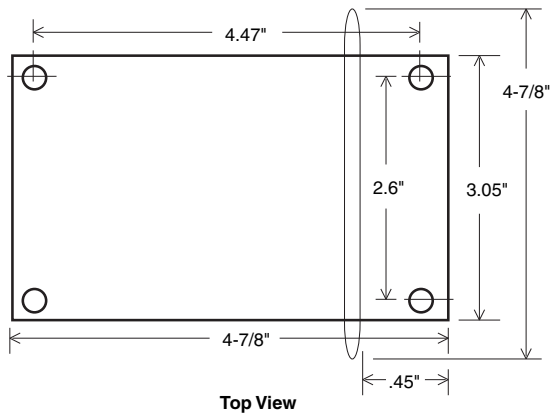
### Specifications

#### Flow/Sensor – 200-3 Series

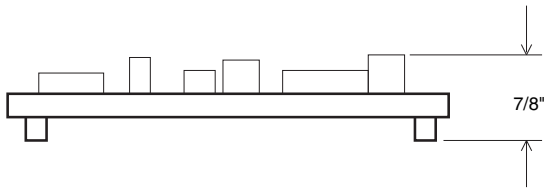
Volts Input –15%, +20%	24V AC
Frequency	50/60 Hz
Power	5VA
Velocity range, FPM	0 – 4000
Span, V DC/°F	5.4/2.3°
Dead band, 400 FPM/°F	40/0.1°
Damper Override (open and/or closed)	Standard
Control Mode	Direct/Rev.

#### Actuator – 241-2 Series

Volts Input (–15%, +20%)	24V AC
Frequency	50/60 Hz
Power	3VA
Amp	0.085
Timing	2 sec./degree
Torque	
Run	35 in.-lb.
Stall (minimum)	45 in.-lb.
Shaft Size	
Nominal	0.5”
Optional	0.375”



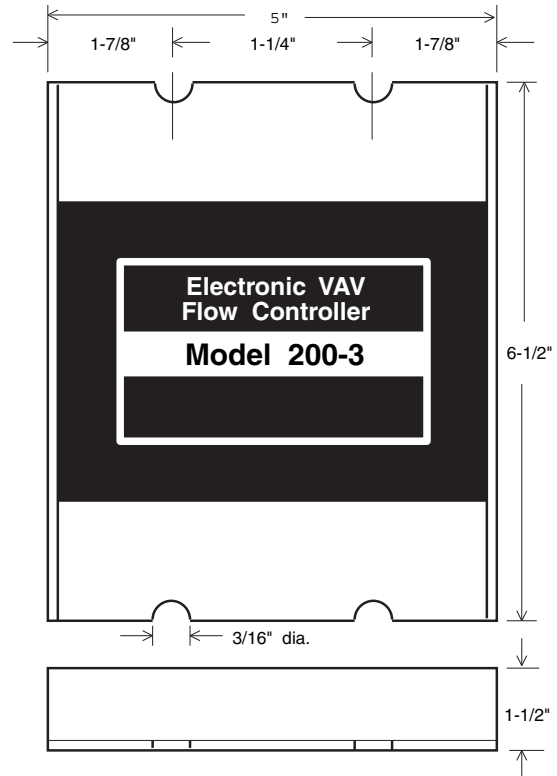
Top View



End View

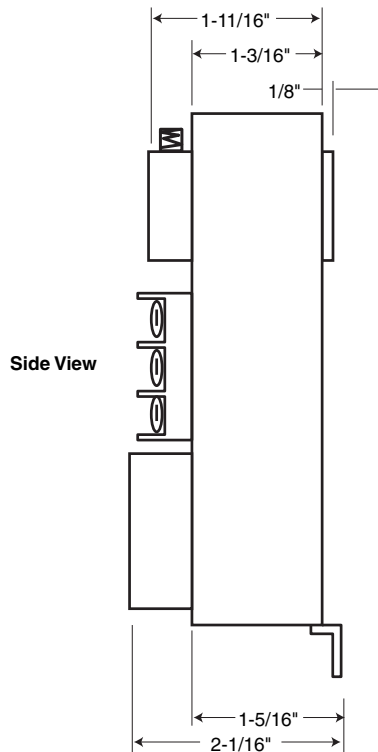
Open, exposed Logic with (4) stand-offs for control panel mounting.

Stand-Off Mounted Logic (Standard)



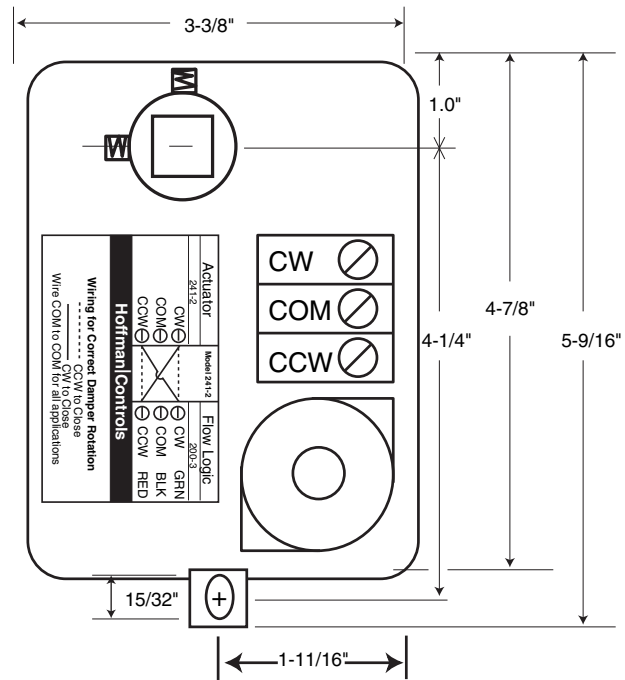
Enclosed, track mounted Logic with snap on cover with mounting space for all 202 Series Interfaces.

Track Mounted Logic (Optional)



Side View

Top View



241 Series Actuator Dimensions

## Hoffman Controls