

906-VmA Series Thermostat

### Description

The 906-VmA Series thermostat is designed to provide two output signals; 2-10V DC and 4-20mA. Both signals are proportional over a 2°F span. The thermostat has an automatic or manual changeover mode that allows the thermostat to function in a Direct Acting (cooling) or Reverse Acting (heating) mode.

The thermostat's output signal is derived from a precision LM-34 IC that produces a linear DC output in millivolts. A direct reading of the thermostat's sensor output will provide a mV signal. When converted to °F, it will indicate the actual temperature sensed; i.e. 768mV = 76.8°F. A factory "zero calibration" procedure normalizes all tolerances of sensor and circuit, providing a precise temperature. The thermostat range is 50°-90°F in one degree F markings.

A system "ON OFF OS" switch is standard. The Direct or Reversing function can be selected by the installer as would be required for the application. This could be manually determined by a remote switch closure, or automatically determined by an aquastat in the air distribution system, or by the heating or cooling medium. The accessory aquastat (P/N 510-0075-002), closes at temperatures above 88°F and opens at temperatures below 68°F. The aquastat is used to indicate the temperature of the fluid that is available in the coil (heat exchanger). Switch closure programs the thermostat for Reverse Acting (heating) while switched open provides a Direct Acting (cooling) function.

The 906-VmA thermostat mounts horizontally to a 2x4 J Box. The ventilated ABS case is available only in white.

### Application

The 906-VmA Series thermostats can be used with any HCC control or EMS output controller that accepts a 2-10V DC or 4-20 mA input signal. It may also be used to provide either of these two output signals for any other device or control that accepts these specific proportional inputs. The on-off switch can be used to turn "on" or "off" an external device like the 709 motor speed control.

### Specifications

Series	906-VmA
Power	24V AC
Min/Max	20-30V AC
VA	4.0
Span	2°F
Output Signals	2-10VDC & 4-20 mA
Set Point Range	50°-90°F
Sensor Output	mV
mV to °F Conversion	10mV = 1°F
Accuracy	+/- 0.5°F

#### Standard Features:

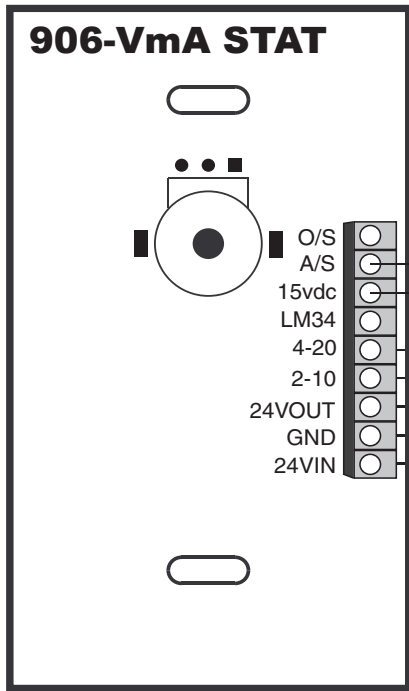
System Switch	On/Off/Offset
Mode	Direct (cool) or Reverse (heat) Acting
Changeover	Fixed Local or Auto Remote

#### Optional Features/Accessories:

Aquastat		
P/N 510-0075-002	N.C. @ 88°F,	N.O. @ 68°F

### Available Models

906-VmA	Wall Sensor	50°-90°F
906-VmA(R)	Remote Sensor	50°-90°F



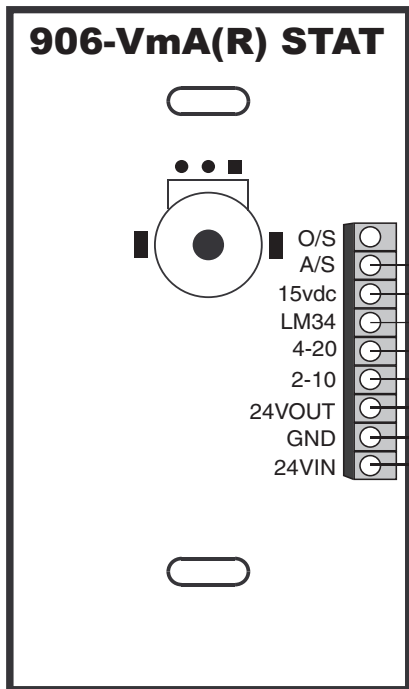
*Consult Factory when one Aquastat is used with Multiple thermostats to provide auto change over.*

*Aquastat closed for heat (RA) mode  
 Aquastat open for cool (DA) mode.  
 Manual heat mode jumper A/S to 15vdc.  
 Manual cool mode no jumper required.*

*Always use twisted pair signal cable for the DC outputs of 2-10vdc or 4-20ma.*

*Available AC output of switched 24 VAC for other controls.*

**Wiring diagram for 906-VmA Thermostat optional operating mode control signals shown**



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**Wiring diagram for 906-VmA(R) Thermostat optional operating mode control signals and remote sensor probe shown**

**Hoffman|Controls**