

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 remote sensor with wall set point is also available for 30-180°F.

A system "On-Off-Offset" 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.

An optional offset feature can be programmed internally to automatically function either locally or remotely. When programmed for local offset control, moving the three position power switch to the "OS" position immediately activates the offset mode. When programmed for remote offset control, moving the 3 position switch to the "OS" position enables, but does not immediately activate the offset mode. Activation of the offset mode must now come from a remote contact closure.

An adjustment from 0°-15°F offset above or below the selected setpoint is available for adjustment on the side of the thermostat.

When the offset function is programmed for local control, offset operation is initiated by moving the slide switch to the "OS" position. Offset operation will continue until the switch is turned to the "ON" or "OFF" position. If offset is to be remotely controlled, a SPST closure can determine the normal or offset operating times. The remote offset function can control multiple thermostats by one switch closure.

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	2-10V DC & 4-20 mA
Set Point Range	50°-90°F or 30°-180°F
Sensor Output	mV
mV to °F Conversion	10mV = 1°F
Accuracy	+/- 0.5°F

#### Standard Features:

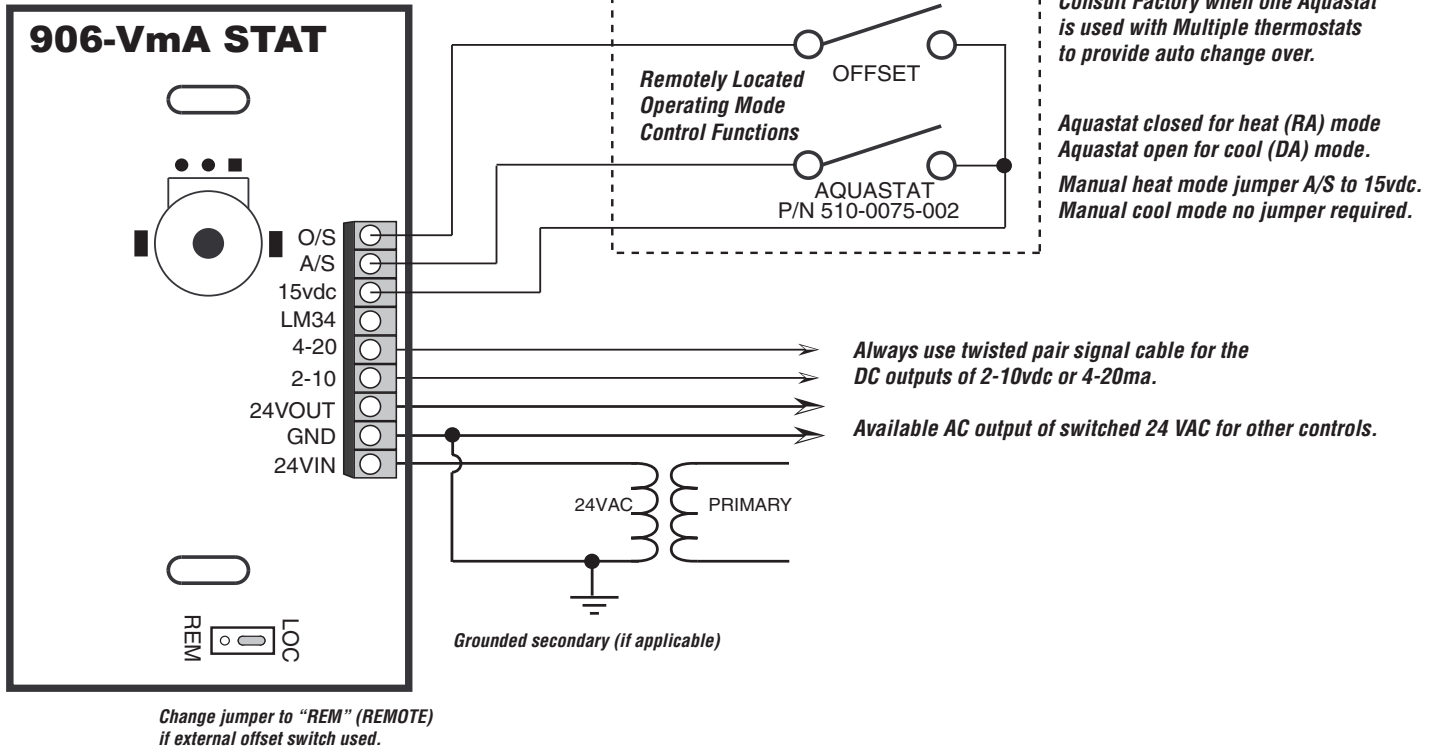
System Switch	On/Off/Offset
Mode	Direct (cool) or Reverse (heat) Acting
Changeover	Fixed Local or Auto Remote

#### Optional Features/Accessories:

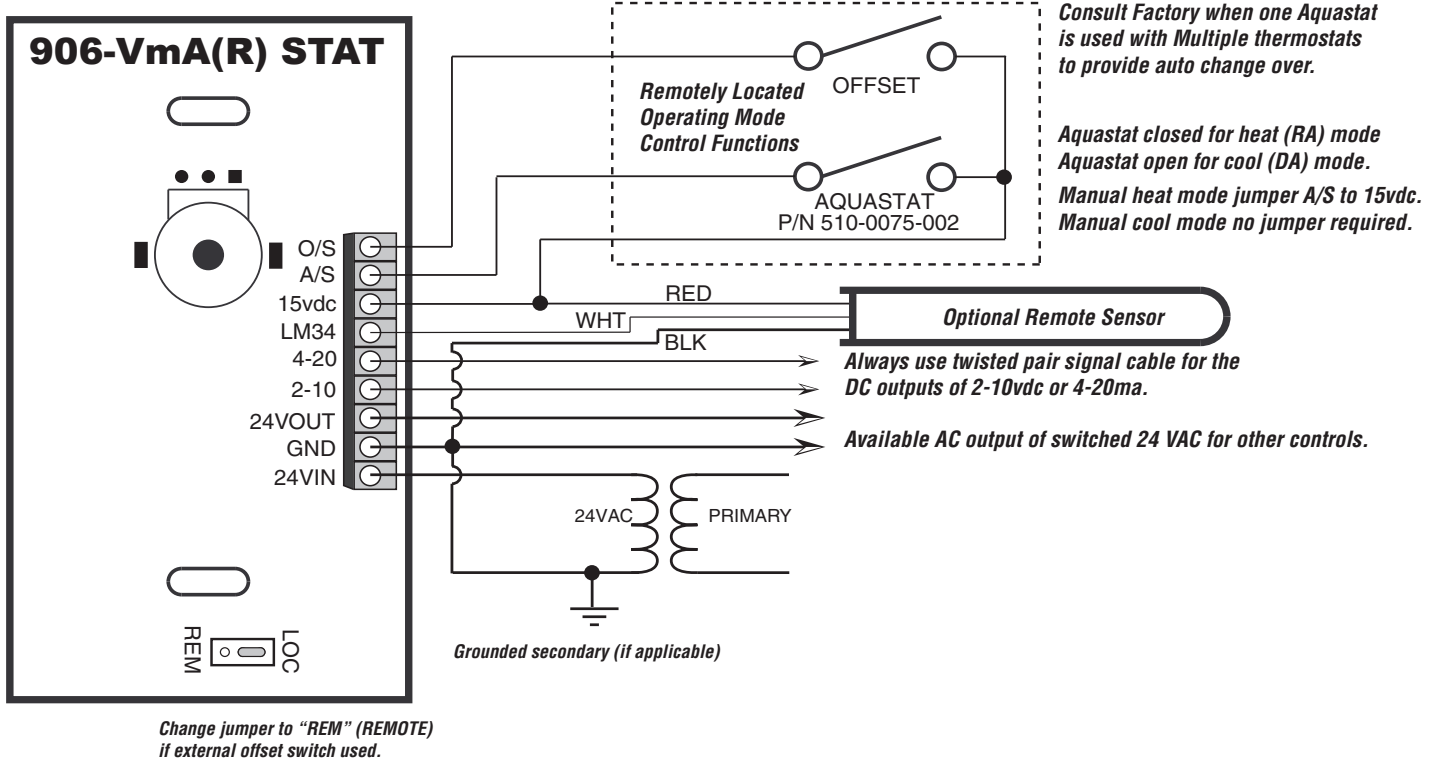
Aquastat			
P/N 510-0075-002	N.C. @ 88°F,	N.O. @ 68°F	
Offset Range (set locally)	+ or - from	0°-15°F	
Offset Function		Local or Remote	
Non Standard Span		Consult Factory	

### Stock Models

906-VmA	Wall Sensor		50°-90°F
906-VmA(S)	Wall Sensor	Offset	50°-90°F
906-VmA(R)	Remote Sensor		50°-90°F
906-VmA(RS)	Remote Sensor	Offset	50°-90°F
906-VmA(180R)	Remote Sensor		30°-180°F



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



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

Hoffman|Controls