SOLIDYNE CORP.

THE MODEL 3261 INSTALLATION SHEET

SOLIDYNE MODEL 3261
2 TO 8 TEMPERATURE SENSOR AVERAGER

PRODUCT DESCRIPTION:
The Solidyne Model 3261 is a programmable temperature averaging module where up to eight 3282 sensors can be connected in series to be averaged, and output one analog value into any of the Solidyne family of controllers. The 3261 can be used in a variety of situations requiring an averaged value such as; eliminating sensor error due to different temperature spots in a large zone, or a number of individual rooms being served by one air handler. The Model 3261 contains a program dip switch to define the output value to reflect the number of 3282 analog sensors connected. Any number of sensors from 2 to 8 can be connected in series. The output of the 3261 module is the sum of analog sensors divided by the user selected program dip switch number. The Model 3261 module will interface directly with any analog input in the Micromizer III, 8008, 8002, or the 4002 controllers.

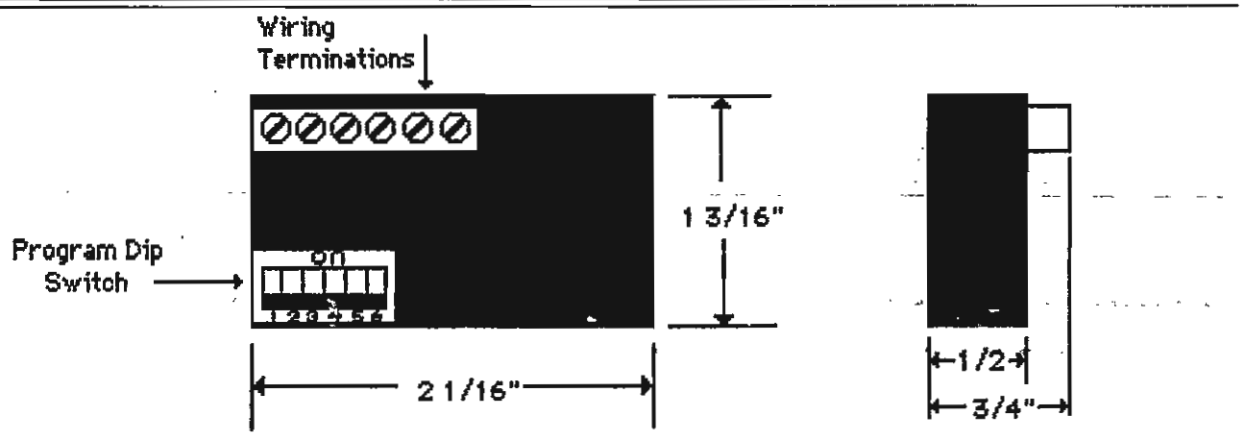

FIGURE 1. MODEL 3261 DIMENSIONS

SPECIFICATIONS:

1. Input power:	Separate 24VAC ± 10%
2. Power consumption:	0.1vA
3. Sensor inputs:	Minimum of two and a maximum of eight Model 3282 temperature sensors
4. Sensor current:	1mA DC at 24 to 30VDC supply voltage to sensor
5. Temperature:	-20°F to +180°F in operation -40°F to +200°F in storage
6. Humidity:	5% to 90% RH

SPECIFICATIONS: (cont)

7. Output:	Variable voltage signal based on analog input signal and program dip switch setting (see Table 1.) From +2.415 to +3.832 VDC
8. Averaging error:	+ or - 1°F
9. Dimensions:	$1\,^{3}/_{16}$" W, $2\,^{1}/_{16}$" L, $^{1}/_{2}$" D

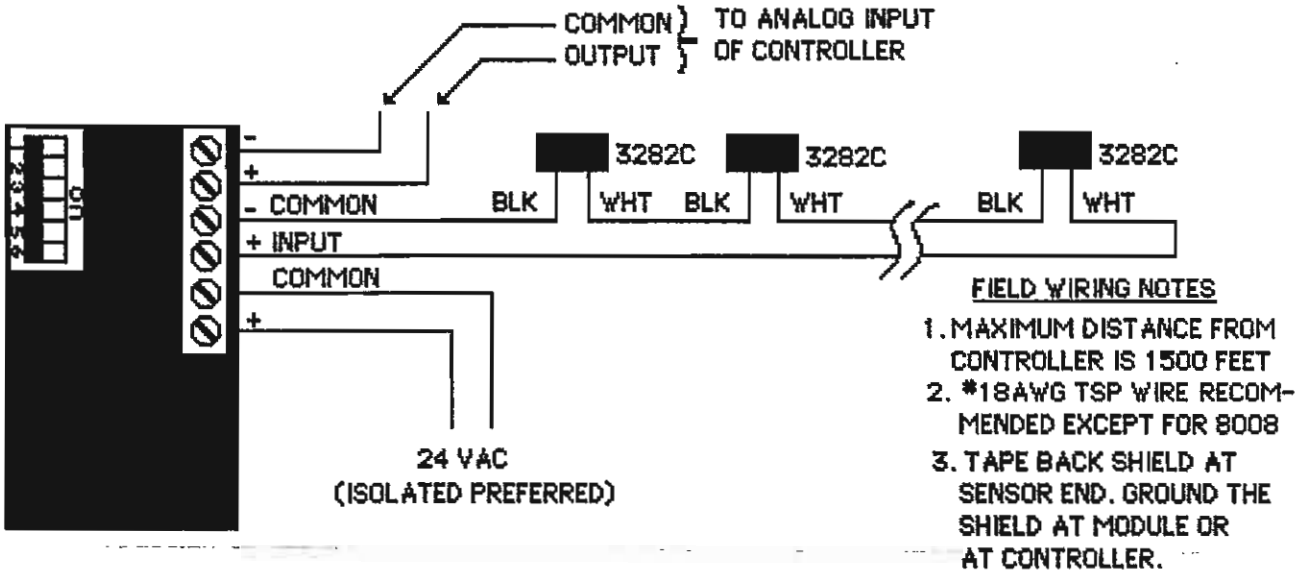

FIGURE 2. MODEL 3261 WIRING DIAGRAM

INSTALLATION:

CAUTION: BEFORE INSTALLING THE 3261 OR THE 3282 MODULES, DISCONNECT POWER TO THE MODULE AND TO THE CONTROLLER BEING WIRED.

1. The Model 3261 can be mounted in a panel or enclosure located up to 1500 feet from the controller where the output will be terminated. A double-sided tape-backed piece of Velcro is provided with the 3261 module for placement in the enclosure.

2. Connect a 24VAC voltage source to the designated 24VAC input and common terminals of the module as shown in Figure 2. Any volt/amp rating of transformer can be used as the 3261 module uses only 0.1VA.

NOTE: One side of the 24VAC input will be shorted to ground through the common of the 3282 sensor inputs or common of the output. Use either an isolated 24VAC transformer or an existing 24VAC source where connecting one leg of this voltage to ground will not disturb the operation of any other device connected to the same 24VAC source.

INSTALLATION: (cont)

3. Connect the temperature sensors in series as shown in Figure 2. Make sure that the polarity of the sensors are not reversed or mixed. Connect the common(black) from the Common terminal of the 3261 to the first sensor in the series, and connect the input(white) from the last sensor in the series to the Input terminal(see Figure 2).

NOTE: The total sum of the voltage drops across all input sensors cannot exceed 24VDC. The modules internal power supply cannot generate more than 24VDC, so if the sensors additive voltage load is 24VDC, the output will read its maximum value, +230°F. This limitation requires that in certain applications, less than eight sensors can be used.

4. Connect the output of the 3261 module to the applicable Solidyne Controller's analog input module or input terminals(referance the appropriate controllers installation manual for the analog input terminations). The output signal terminal from the module terminates to the analog sensor input of the controller being used and connect the common terminal to the analog common of the controller.

5. Locate the program dip switch on the 3261 module(see Figure 1.). Set the program dip switch according to the settings in Table 1. Incorrect dip switch settings will result in incorrect output voltage readings.

6. Apply 24VAC power to the module.

7. With a DVM, measure the DC voltage at the sensor input terminal with respect to common, and record the reading.

8. Measure the modules output voltage at the output terminal with respect to common. The readings should correspond to the following formula;

$$\text{(Sensor Output Voltage)} = \frac{\text{(Sensor Input Voltage)}}{2 + \text{(number of dip switches open)}}$$

9. If the output voltage reading does not correspond to the formula, then re-check the units terminations, wiring, sensor location, dip switch settings, etc. Keep in mind that minor reading errors can be introduced by long distances of wiring(over 1500 feet), EMI and RFI interferance, static, etc. Errors in readings can be compensated for at the controller by entry of an analog offset value assigned to that sensor in the controller's program.

TABLE 1: Program Dip Switch positioning NOTE: Order in which dip switches are set is not critical.	
Number of sensors used	Dip Switch Setting
2	All Dip Switches are "on" or "closed" position.
3	Any one of the Dip Switches is "off" or "open".
4	Any two of the Dip Switches are "off" or "open".
5	Any three of the Dip Switches are "off" or "open".
6	Any four of the Dip Switches are "off" or "open".
7	Any five of the Dip Switches are "off" or "open".
8	All six of the Dip Switches are "off" or "open".

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