



TUC2

Microprocessor Based Temperature Sensor

The microprocessor based A/TUC2 can indicate room temperature, setpoint, fan speed, and occupied/unoccupied status with corresponding signals sent to your Direct Digital Control System (DDC System). This unit supports single sensor operation for several common sensor types and it provides the flexibility to indicate several options. Additionally, many options are field adjustable via the key-pad menu. The A/TUC2 is highly configurable as a standard offering but can also be engineered to meet special OEM requirements.

The A/TUC2 Series is covered by ACI's Five (5) Year Limited Warranty. The warranty can be found in the front of ACI's Sensors & Transmitters catalog, as well as on ACI's web site, www.workaci.com



Specifications

Supply Voltage	+12-40 VDC (0-1V, 0-5V, 0.5-4.5V)	+18-40 VDC (0-10V, 2-10V, 0-20 mA, 4-20 mA)	20-28 VAC
Supply Current	Current Output: 100 mA maximum Voltage & Resistive Output: 16 mA maximum		
Temperature Accuracy	+/-1°F (+/- 0.56°C)		
Operating Temperature Range	40°F to 104°F (5°C to 40°C)		
Operating Relative Humidity Environment	0 to 95% Relative Humidity (non-condensing)		
Analog Temperature Sensor Outputs	Resistive, 0-1V, 0.5-4.5V, 0-5V, 1-5V, 0-10V, 2-10V, 0-20 mA, 4-20 mA		
Setpoint Accuracy	Resistance: +/-5% Full Scale Output, Analog: +/-2% Full Scale Output		
Analog Setpoint Outputs	Resistive, 0-1V, 0.5-4.5V, 0-5V, 1-5V, 0-10V, 2-10V, 0-20 mA, 4-20 mA		
Product Dimensions	(H) 4.56" (W) 3.00" (D) 1.26"		

Options

Select one Sensor Type (A), one Temperature Scale (B), one Setpoint Range (C), one Setpoint Offset (D) & one Setpoint Action (E). Proceed to (F) and select one Setpoint Midpoint, one Setpoint Range (G), one Setpoint Display (H), one Override (I), one Feedback (J), One Fan Speed (K), one System option (L) and one Display (N). **NOTE:** When selecting Fan (K) or System (L), please indicate the corresponding voltage, current, or resistance value for each selection. This chart is for reference purposes only. Please contact ACI for a finished part number before ordering.

A Temperature Sensor Type

- None 1K-RTD (385) 2252 10K-CP 100K-S 0-1 VDC 0-10 VDC 10-2 VDC 20-0 mA
- 1K-Nickel 1035 3K 10K-CSI 20K 0-5 VDC 2-10 VDC 10-0 VDC
- 1K-Balco 2K RTD 3K-ASI 10KS 0-20 mA 0-5.45 VDC 4.5-0.5VDC 5-0 VDC
- 1K-RTD (375) 1.8K 10K-AN 20KS 4-20 mA 1-5 VDC 5-1 VDC 20-4 mA

B Temperature Scale

- °F (Fahrenheit)
- °C (Celsius)

C Setpoint Range

- None 8.5K 0.5-4.5V
- 400 10K 1-5V
- 1K 20K 0-10V
- 2K 100K 2-10V
- 3K 0-1 VDC 0-20 mA
- 5K 0-5V 4-20 mA

D Setpoint Offset Resistor

- None 2.05K 866 1290
- 0 4.75K 889 4K
- 800 6.2K 3890 2.49K
- 900 7.8K 4550 879
- 1K 10K 1422

E Setpoint Action

- NA (None)
- DA (Direct)
- RA (Reverse)

F Setpoint Midpoint

- 55°F (14°C) 60°F (16.5°C) 65°F (19°C) 70°F (21.5°C) 75°F (24°C) 80°F (26.5°C) None
- 56°F (14.5°C) 61°F (17°C) 66°F (19.5°C) 71°F (22°C) 76°F (24.5°C) 81°F (27°C)
- 57°F (15°C) 62°F (17.5°C) 67°F (20°C) 72°F (22.5°C) 77°F (25°C) 82°F (27.5°C)
- 58°F (15.5°C) 63°F (18°C) 68°F (20.5°C) 73°F (23°C) 78°F (25.5°C) 83°F (28°C)
- 59°F (16°C) 64°F (18.5°C) 69°F (21°C) 74°F (23.5°C) 79°F (26°C) 84°F (28.5°C)

G Setpoint Scale

- None -2 to +2 -5 to +5 -8 to +8 -11 to +11 -14 to +14 -17 to +17 -20 to +20
- 0 to +0 -3 to +3 -6 to +6 -9 to +9 -12 to +12 -15 to +15 -18 to +18
- 1 to +1 -4 to +4 -7 to +7 -10 to +10 -13 to +13 -16 to +16 -19 to +19

H Display

- None
- °F or °C
- Offset (+/-)

I Override

- None
- Short Temp Sensor
- Short Temp Setpoint
- Dry Contact

J Feedback

- None
- Digital Low Input
- Digital High Input
- 24 VAC
- Dry Contact
- Self-Indication

K Fan*

- Off
- Auto
- Low
- Med
- High
- None

L System*

- On
- Off
- Auto
- Heat
- Cool
- None

M Comm Jack

- No Jack
- 4 Pin 4 Conductor
- 6 Pin 4 Conductor
- 6 Pin 6 Conductor
- 3.5mm Stereo

N Display

- Temp Only
- Temp/Setpoint
- Setpoint Only

*Voltage: 0, 1, 2, 3, 4, 5, 6, 8, & 10V
 *mA: 0, 4, 8, 12, 16, & 20mA
 *K Ohms: 0, 2.5, 7.5, 10, 15, 20, 25, 10.77, & 13.866KΩ



The TUC2 enclosure has UL94-5VB flammability ratings.