



5 Button Membrane



4 Button Membrane

TUC2

Microprocessor Sensor [Analog VDC/mA Temp]

The A/TUC2 Series is a customizable sensor which features an on-board microprocessor, large backlit LCD display, set point, override and local system status when using the Override Feedback option. All accuracy measurements should be measured from the sensor output terminals with the LCD display being used for reference purposes due to the rounding of the display to the nearest 0.5°F. To eliminate errors between the temperature shown on the LCD display and the temperature output to your building management system, a single point temperature offset can be used. These units are factory configured to your desired specifications to reduce onsite programming. Additional features can be modified using the integral keypad and menu system, providing you with the field flexibility to meet any

additional requirements. Additional features include Set Point configurations, Backlit Display brightness and functionality, Set Point Lockout, Direct and Reverse Acting Output adjustments, temperature offset, test functions and more. For additional features including Fan Speed and System Configurations, please contact ACI for more information.

Applications: Schools/Universities, Office Buildings, Commercial Buildings, Laboratories, Hospitals, Clean Rooms, Pharmaceutical, Process Control, OEM's

The ACI 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 website, www.workaci.com.

PRODUCT SPECIFICATIONS

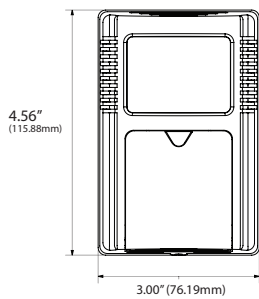
Supply Voltage:	0-1V, 0-5V, 1-5VDC Output Signals: 20-28 VAC / +12-40 VDC 0-10 V, 2-10V, 0-20 mA, 4-20 mA Output Signals: 18-40 VDC / 20-28 VAC
Supply Current (Maximum):	mA Output Signals: 60 mA VDC Output Signals: 16 mA
Temperature Measurement Range:	See Output Temperature Span in Ordering Grid
Temperature Accuracy *:	+/- 1°F (+/- 0.5°C) (Display rounded to nearest 0.5°F/°C)
Set Point Midpoint:	Select single point temp from 55 to 89°F (14 to 31°C)
Set Point Differential (Scale Above / Below Midpoint):	Select single point from +/- 1° to +/- 20°
Set Point Temperature Scale:	See Ordering Grid for Standard Options
Temperature Set Point Accuracy:	+/- 2% Full Scale Output; +/- 5% Full Scale for all resistive outputs
"After Hours" Override Contact Style (Optional):	N/O Dry Contact Closure; Other options available (See Ordering Grid)
Override Contact Resistance Life Expectancy:	< 30 Ohms 500,000 Actuations minimum
Override Feedback Signal:	Dry Contact (Logic Low) or 5-30 VDC / 24 VAC (Logic High) (Specify when Ordering)
LCD Backlight Color LCD Backlight Function:	Blue Turns on w/ Button Press (Default); Field Adjustable: (ALWAYS ON or OFF)
Display Mean Time Between Failure (MTBF):	100,000 Hours typical (When LCD Backlight set to ALWAYS ON)
Display Numeral Height:	Large: 0.600" (15.24 mm); Small: 0.280" (7.11 mm)
LCD Display Descriptors:	°F, °C, Set Point, Occupied / Unoccupied (Override Feedback)
Communication Jacks (Optional):	J4 (4 Pin 4 Cond (RJ9, RJ10, RJ22 Phone)), J6 (6 Pin 6 Cond (RJ12 Phone)) and RS (1/8" (3.5 mm) RS232 (Stereo) Jack)
Power / Output Connections:	12 Position Screw Terminal Block
Communication Jack Connections:	Six 7" (17.78 cm) Long x 26 AWG lead wires with wire nuts
Terminal Block Wire Size UL (SEL) Torque Rating:	Accepts 28 to 14 AWG (0.08 to 2.5 mm ²) 4.4 lb-in (0.5 Nm)
Enclosure Material Color UL Flammability Rating:	ABS / Polycarbonate Blend White UL 94-5VB
Operating Temperature / Storage Temperature:	40 to 104°F (4.5 to 40°C) -4 to 158°F (-20 to 70°C)
Operating / Storage Humidity:	5 to 90% RH, non-condensing
Product Dimensions (H x W x D)	4.56" (115.82 mm) x 3.00" (76.2 mm) x 1.45" (36.75 mm)
Product Weights:	0.21 lbs. (0.095 kg)
Agency Approvals:	CE (EMC 2014/30/EU); RoHS2 2011/65/EU

Note 1: The output accuracy must be measured from the output terminals and not the display | The display is for reference purposes only since the unit rounds to the nearest 0.5°F/0.5°C increment

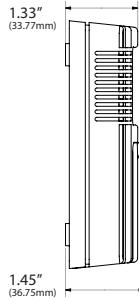




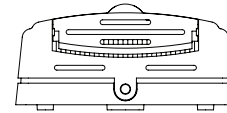
DIMENSIONAL DRAWING



Front View



Right View



Top View

TEMPERATURE ORDERING OPTIONS

Model # Example: **TUC2** **20** **F2** **1K**
A. B. C. D.

MODEL #

A. Sensor Series <i>No Selection Required</i>	TUC2 →	TUC2
B. Temp Output Signal <i>Select One (1)</i> <small>Output Signal can be Reversed in field using integral menu system</small>	VDC Output: 05 = 0 to 5 VDC 01 = 0 to 1 VDC 08 = 2 to 10 VDC 04 = 1 to 5 VDC 10 = 0 to 10 VDC mA Output: 16 = 4 to 20 mA 20 = 0 to 20 mA	
C. Analog Output Temperature Scale: <i>Select One (1)</i>	FX = Fahrenheit Set point Only F2 = 40 to 90°F F3 = 40 to 100°F F4 = 50 to 90°F F5 = 50 to 100°F F6 = 55 to 85°F CX = Centigrade Setpoint Only C1 = 4.5 to 40°C C2 = 4.5 to 32°C C3 = 10 to 32°C C4 = 10 to 35°C C5 = 13 to 29.5°C C6 = 13 to 32°C	
D. Set Point Temperature Scale: <i>Select One (1)</i> <small>See Specifications for more details regarding Midpoint/Differential set point specifications available</small>	XX = No Set Point <hr/> Centigrade: 1A = 6 to 30 (Midpoint = 18, Set Point Differential = +/- 12) 1B = 10 to 30 (Midpoint = 20, Set Point Differential = +/- 10) 1C = 15 to 31 (Midpoint = 23, Set Point Differential = +/- 8) 1D = 18 to 28 (Midpoint = 23, Set Point Differential = +/- 5) <hr/> Fahrenheit: 1E = 50 to 90 (Midpoint = 70, Set Point Differential = +/- 20) 1F = 55 to 85 (Midpoint = 70, Set Point Differential = +/- 15) 1G = 55 to 95 (Midpoint = 75, Set Point Differential = +/- 20) 1H = 60 to 80 (Midpoint = 70, Set Point Differential = +/- 10) 1I = 62 to 82 (Midpoint = 72, Set Point Differential = +/- 10) 1J = 65 to 75 (Midpoint = 70, Set Point Differential = +/- 5) 1K = 67 to 73 (Midpoint = 70, Set Point Differential = +/- 3) 1L = 67 to 77 (Midpoint = 72, Set Point Differential = +/- 5) 1M = 68 to 72 (Midpoint = 70, Set Point Differential = +/- 2) 1N = 68 to 76 (Midpoint = 72, Set Point Differential = +/- 4) 1O = 68 to 78 (Midpoint = 73, Set Point Differential = +/- 5) <hr/> Custom = Specify (Midpoint = ??, Set Point Differential = +/- ??)	





TEMPERATURE ORDERING OPTIONS <i>continued</i>			Model # Example: G0 X X X X <small>E. F. G. H. I.</small>	MODEL #
E. Set Point Temperature Output: <i>Select One (1)</i> <i>See Specifications for more details regarding Midpoint/Differential set point specifications available)</i>	XX = No Set Point A0 = 0 to 1 VDC B0 = 0 to 5 VDC C0 = 0 to 10 VDC D0 = 1 to 5 VDC E0 = 2 to 10 VDC F0 = 0 to 20 mA G0 = 4 to 20 mA	ZZ = 0 to 1.5K Ohms ZY = 0 to 10K Ohms ZW = 0 to 20K Ohms ZT = 0 to 100K Ohms ZS = 100 to 6500 Ohms ZR = 333 to 1695 Ohms ZQ = 866 to 1290 Ohms ZP = 889 to 111 Ohms ZO = 1089 to 879 Ohms	ZN = 3890 to 6110 Ohms ZM = 4550 to 6650 Ohms ZL = 5K to 15K Ohms ZK = 7.8K to 27.8K Ohms ZJ = 9577 to 1421 Ohms ZI = 9843 to 1290 Ohms ZH = 10K to 30K Ohms ZG = 10K to 20K Ohms ZF = 2.49K to 3.49K Ohms	
F. "After Hours" Override Options: <i>Select One (1)</i>	X = No Override S = Short Sensor C = Dry Contact/Logic Low P = Short Set Point			
G. Override Feedback Options: <i>Select One (1)</i>	X = None L = Dry Contact / Logic Low H = Logic High / 24 VAC or 5 to 30 VDC			
H. Communication Jack Options: <i>Select One (1)</i>	X = None 4 = 4 Pin 4 Conductor RJ9, RJ10, or RJ22 Style Head Set Modular Connector 6 = 6 Pin 6 Conductor RJ12 Modular Phone Connector 8 = 3.5mm (1/8") Stereo Jack			
I. Manufacturer Provided <i>No Selection Required</i>	X = Default →			X

ACCESSORIES ORDERING			Model # Example: A/LOCKING COVER -OR- 10370
Model #	Item #	Description	
A/MOUNT PLATE W	126386	Wall Mounting Back Plate, Plastic, White	
A/LOCKING COVER	107370	Clear Thermostat Guard, Locking Cover, Low Profile	

