TEMPERATURE SENSORS

TEMPERATURE
The first product line ACI manufactured in 1991 was temperature sensors. This line has grown in scope every year since and has become a staple in the industry today. ACI goes the extra mile by double encapsulating and using high-quality etched teflon lead wires for probe-based sensors.

Applications:
- Roof Top Units
- Air Handlers
- Discharge Air
- Supply/Return/Mixed Air
- Chilled Water Systems
- Hot Water Systems
- Boilers
- Pumps
- Compressor
- Chillers
- Space/Room Temperature
- Schools/Colleges
- Office/Commercial Buildings
- Data Centers
- Hospitals
- OEM Opportunities
ROOM
The ACI R2 offers the most stylish and modern room enclosure appearance in the industry today. ACI’s R2 provides enhanced airflow which allows the enclosure to be fitted with numerous options and limits self-heating errors. Options include: setpoint, override and communication jack. This attractive enclosure can be ordered with your custom logo as well.

DUCT
ACI’s standard plastic box has a hinged cover with a pressure latch closing mechanism, a mounting flange and a foam pad. Each sensing element is double encapsulated and is offered in numerous probe lengths. Ducts can also be ordered with a galvanized metal box, NEMA 3R or NEMA 4X enclosure.

OUTSIDE
The ACI Outside Air Mount is based on a European style enclosure that locks out water with a gasketed cover and watertight fitting. It is designed to be mounted flush to an exterior wall. A solar radiation/weather shield is offered when applications require additional protection from extreme weather conditions.

IMMERSION
The ACI Immersion configuration incorporates the same high quality standards as the ACI Duct configuration but adds a ½ inch NPSM fitting in place of the mounting flange and a variety of thermowell lengths and materials are available. This product comes standard with a galvanized box and can also be ordered with an optional plastic enclosure, NEMA 3R or NEMA 4X enclosure.

STRAP
The ACI Strap-on comes with a sensor epoxied to the back side of a copper plate and with a foam pad, compression is created when the strap wormdrive is tightened. This creates a good thermal transfer around pipes 2” to 5” in diameter. There is also an option of a 12” hose clamp for longer diameter pipes. Strap-ons come standard with a galvanized box and can be ordered with a plastic enclosure or a NEMA 4X enclosure.
**COPPER AVERAGING**
ACI has several options for getting an average temperature reading. Our most common is the bendable copper tube type, which comes in lengths of 8’, 12’ and 24’. Longer lengths are available depending on the sensing elements specified. Copper is known to have an inhibiting effect on the growth of fungi and bacteria within the typical HVAC duct. Copper also has a thermal conductivity that is approximately 1.75 to 2 times higher than that of aluminum.

**RIGID AVERAGING**
A stainless steel probe houses sensing elements which are wired in a series/parallel configuration to provide an averaged output. A foam pad is added to dampen vibrations.

**FLEXIBLE AVERAGING**
The flexible averaging series incorporates sensing elements which are wired in a series/parallel configuration to provide an averaged output inside a flexible cable for ease of installation. Each sensing element is marked by adhesive shrink wrap.

**BUTTON**
The ACI Button Sensor is designed to be aesthetically pleasing for higher profile applications. Due to the size and appearance of these products, any button sensor is a perfect choice for applications where room sensors want to remain unnoticed. Buttons are available in brass, stainless steel and plastic for installation flexibility.

**HAZARDOUS**
ACI’s Hazardous Sensor Series is offered with an explosion proof head, which includes an O-ring, gasket, ground screw, (2) 1/2” NPT female openings and mounting holes in the base of the housing for ease of installation. The enclosure has a UL Listing of 886 and meets the following: CL. I, DIV. 1 & 2, GR. A, B, C, D; CL. II, DIV. 1, GR. E, F, G; CL.II, DIV. 2, GR. F, G; CL. III; NEMA 3, 4, 7ABCD, 9EFG.
**TUC2**
The A/TUC2 Series can indicate room temperature, setpoint, fan speed and occupied/unoccupied status with corresponding signals sent to your Direct Digital Control System (DDC). 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.

**STAINLESS PLATE**
The ACI Stainless Plate has a sensor epoxied to its backside and is thermally shielded from temperatures inside the wall by an insulated foam pad. Options include an override and RS232 communication port.

**HIGH & LOW**
ACI High Temperature (HT) and Low Temperature (LT) sensors are air encapsulated. This allows the sensor to have a more stable output since the sensing element isn’t subjected to the constant expansion and contraction of the encapsulation materials. Sensors are mounted in a 1/4” diameter stainless steel probe and have nickel plated fiberglass (HT) or teflon (LT) lead wires.

**FREEZER**
The ACI Freezer Sensor Series is designed to be placed in glycol to buffer freezer fluctuation response times. Available sizes include: 6’, 10’, 30’, 50’ and 100’ lengths for platinum RTDs and 30’ for various thermistor sensor types. Freezer sensors may be purchased with a glycol bottle and mounting bracket if desired.

**BULLET PROBE**
A stainless steel probe encases a double encapsulated sensing element for durability and ease of installation. The wire leads are etched Teflon and are color coded to identify the sensing element. Additional types of wire and cable are available for most probe sensors.
INFINITY [WITH LCD OPTION]
The Infinity enclosure has 4-way airflow and has been ACI’s standard enclosure for several years. It can support multiple options such as LCD, setpoint, override and communication jacks. ACI offers a digital display to be used in conjunction with its full line of temperature sensors. These devices can be configured with a setpoint, override and communication jack. This attractive enclosure can be ordered with your custom logo as well.

THERMOWELLS
ACI offers a full line of thermowells which cover a wide range of applications. A two-piece welded well comes standard with our thermowell sensor line. A machined well is available for moving water or high pressure applications. Also available are monel wells; which are well suited for marine and salt water applications.

MOUNTING PLATES
The ACI Mounting Plate may be used to mount devices over a larger electrical enclosure or hole in the wall. It is made up of a plastic material and contains numerous mounting holes to match most of the standard electrical boxes used in the industry today. It may be mounted either vertically or horizontally. ACI also offers a slightly larger plate made from 20 Gauge Commercial Steel.

QUICK CONNECTS
The A/CP-D04”-QC Series thermistors provide a predictable output over the specified temperature ranges. These sensors are available with different probe lengths, two cable types, a 1/4” spade connector and several standard cable lengths. The sensing element is double encapsulated for long-term durability.

PIPE MOUNT NEW!
The ACI Thermistor Pipe Mount Series features a 1.1” long Brass probe with a small curvature on the bottom that is designed to increase the surface area and improve the thermal conductivity between the pipe and the sensor. Each sensor has two, 24 inch 22 AWG Etched Teflon colored lead wires to differentiate the many different sensor types.
**NEMA 4X**
Type 4X enclosures are intended for indoor and outdoor use primarily to provide a degree of protection against corrosion, dust, rain, splashing water and hose directed water; and to be undamaged by the formation of ice on the enclosure.

**NEMA 3R**
Type 3R enclosures are intended for outdoor use primarily to provide a degree of protection against falling rain; and to be undamaged by the formation of ice on the enclosure (not available with the ACI Strap-on sensor series).

**GALVANIZED**
ACI galvanized enclosures are intended for indoor use primarily to provide a degree of protection against contact with the enclosed equipment or locations where unusual service conditions do not exist. Galvanized enclosures are typically fitted with mounting flanges and foam pads for duct mounted applications.

**EURO, OUTSIDE**
The Euro Housing is ACI’s standard enclosure for all outdoor resistive temperature sensors. This weather proof enclosure has a gasketed cover and a water tight gland for wiring.

**PLASTIC BOX**
The innovative plastic box from ACI features a hinged cover (no screws) with a quick snap latch for ease of installation. This user-friendly and robust enclosure features a built-in mounting flange and weighs much less than its metal counterparts.
WE HAVE YOU COVERED!

ACI places the highest priority in providing our customers quick and comprehensive support. Our Technical Support Team specializes in product installation and troubleshooting. When you contact ACI, chances are you will be talking to an individual that has been in the HVAC Industry for several years and has been indoctrinated in our number one goal, providing value to our customers.

ACI now offers Live Chat to assist you in account or product questions. Our Live Chat Pros are long-term employees that excel at what they do, helping our customers. ACI’s Live Chat is online from **8 AM to 5 PM CST, Monday - Friday.** Live Chat switches to an email portal during non-business hours. It can be used in the very same manner as Live Chat, however, there might be a delay in our response until normal business hours resume.


To speak with our Technical or Customer Support Pros, please call: 1-888-967-5224.