Table of Contents

ACI
Automation Components, Inc.

Welcome to ACI's 2008/2009 Product Catalog! Please note that we are updating our standard temperature enclosures to a plastic type box. ACI is dedicated to further enhance our product offerings and this change will provide numerous benefits.

Also, please check out our new web page! It has a new look and several new functions.

Thank you!

"First in Sensor Quality"

Twice awarded
"Wisconsin Manufacturer of the Year"

Please note: Product specifications are subject to change.

The ACI ADVANTAGE

ACI
Automation Components, Inc.

ACI has been twice awarded the "Wisconsin Manufacturer of the year." We take pride in these awards and in our company. ACI employees are challenged on a daily basis to maintain the "ACI Advantage". This advantage is based on the following principles:

CUSTOMER SATISFACTION

ACI has always focused on customer satisfaction. We have one of the lowest return rates in the industry. Our highly skilled sales staff and customer service department are ready and willing to help you with your next sensor application.

PRODUCT QUALITY

ACI has always focused on producing a quality product which exceeds that of the competition. We test each product three separate times before it leaves our factory. We know that a defective sensor costs you valuable time and money.

KNOWLEDGEABLE STAFF

ACI has over 120 years of combined industry sales experience and over 75 years of combined engineering experience currently on staff. These individuals create the core of the ACI Advantage. If you have conversed with someone on our staff, you have experienced this first hand. If you haven't, we invite you to have your expectations raised over that of your current supplier.

TRUSTED RELATIONSHIPS

ACI takes pride in the business relationships that we have forged with our customers. We strive to create a long-term solution for your sensor needs. In addition, we appreciate the kind words that our customers have shared with us regarding our products and level of service.

For more information call 888-967-5224

Product Data

A/LCD

Loop Powered Display

"First in Sensor Quality"

Product Description

The A/LCD 4-20 mA is a low power, high accuracy, 3.5 digit LCD display module that is available in an attractive wall mount enclosure. The A/LCD 4-20 mA may be used with any 4 to 20 mA loop powered Temperature, Relative Humidity, and Differential or Gage Pressure transmitter.

The display can be calibrated for any range between (-) 1999 and 1999 and has factory set descriptors which include C, F, and a decimal point. Another notable feature of the A/LCD 4-20 mA is its wide operating temperature range of 0 to 70°C (32 to 158°F).

Both setpoint and override options are available upon request. A separate 2 pole terminal block will be included for Tenant override. The setpoint options include a 2-wire, linear 4 to 20 mA current output or a resistive setpoint using a 400 Ohm, 1K, 2K, 3K, 5K, 8.5K, 10K, 20K, or 100K ohm slide potentiometer. An optional series resistor allows for any offset of the setpoint potentiometer. The setpoint labels available are Cool|Warm, 55 to 85, 10 to 30°C, and - to +.

All of the units come with a two year factory warranty.

Product Specifications

Input	2-Wire, 4-20 mA current loop
Maximum Voltage Drop	+7 VDC for LCD Display
Life Expectancy	100,000 hours or 11.5 years
Display Accuracy	+/- 0.5% of span
Transmitter Operating Range	32 to 158°F (0 to 70°C)
Enclosure Material	Beige ABS plastic
Adjustable Setpoint Output	4 to 20mA or Resistive Output
Setpoint Accuracy: **Resistive Output** **4 to 20mA Output**	 +/- 10% of Resistive Range +/- 1% of span w/24 VDC supply
Setpoint Supply Voltage: **(4 to 20mA Output only)**	 +24VDC +/-10%

Wiring Diagrams available at www.workaci.com/instructions.htm
C0000097 Rev 1.pdf

LCD

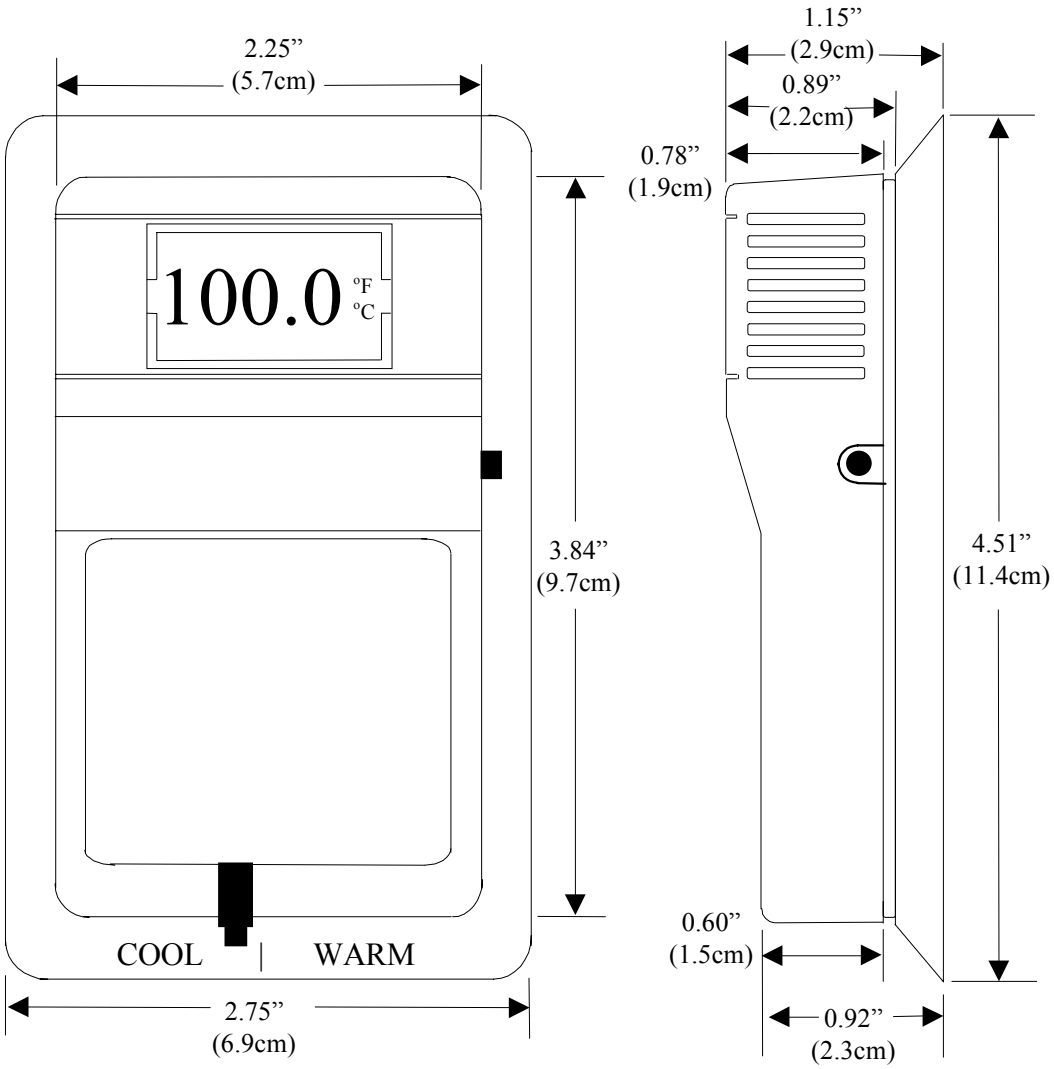
Attributes:
- Sleek looking enclosure
- Enclosure can accommodate additional options such as setpoint and override
- Loop powered

Applications:
- Remote monitoring of any 4 to 20 output device

Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Dimensions

Room



Ordering Information

	Span	Configuration	Setpoint	Only if resistive Pot Action	Only if resistive Pot Value	Setpoint Indication
A/LCD-	[ ]	-[ ]	-[ ]	-[ ]	-[ ]	-[ ]
	↑	↑	↑	↑	↑	↑
	Please Specify	**R** - Room **RS** - Room w/ Setpoint **RO** - Room w/ Override **RSO** - Room w/ Setpoint & Override	**(3) Resistive** **(4) 4-20 mA**	**DA** **RA**	**400 Ohm** **1K** **2K** **3K** **5K** **8.5K** **10K** **20K** **100K**	**Cool | Warm** **55 to 85** **10 to 30°C** **- to +**

2305 Pleasant View Rd. Middleton Industrial Park Middleton, WI 53562
PH: (608) 831-2585 FAX: (608) 831-7407

Product Data

LCD Series

-DF
-DC
LCD Add-on for Temperature Sensors

LCD

Attributes:

- **Sleek looking enclosure**
- **Enclosure can accommodate additional options such as setpoint and override**
- **Customizable Logo's**

Product Description

The LCD option may be added to any resistive type temperature sensor in a room configuration. It is a low power, high accuracy, 3.5 digit LCD display unit. The display has factory set descriptors which include C, F, mA, and a decimal point. Another notable feature of the -LCD option is its wide operating temperature range of 0 to 50ºC (32 to 122ºF).

The LCD may be powered with either 24 VAC or +8 to 35 VDC, since it uses a half-wave bridge to convert the AC voltage to a usable DC voltage.

The heart of the LCD, is a precision semiconductor temperature sensor calibrated to an accuracy of +/- 0.4ºF. All of the units come with a two year factory warranty. Please contact ACI for more information regarding these products.

Please note: This option is added to room sensors by adding -DF or -DC to the end of the ordering information. The LCD option can be used in conjunction with semiconductor type sensors; however, it may require an additional board mounted on the back side of the room enclosure.

Product Specifications

Supply Voltage	+8 to 35 VDC or 24 VAC +/- 10%
Supply Current	4 mA minimum
Display Accuracy	+/- 0.4ºF(0.22ºC)
Life Expectancy	100,000 hours or 11.5 years
Transmitter Operating Range	32 to 122ºF (0 to 50ºC)
Enclosure Material	Beige ABS plastic
Enclosure Plastic Rating	UL94-HB
Temperature Sensor	See other Data Sheets

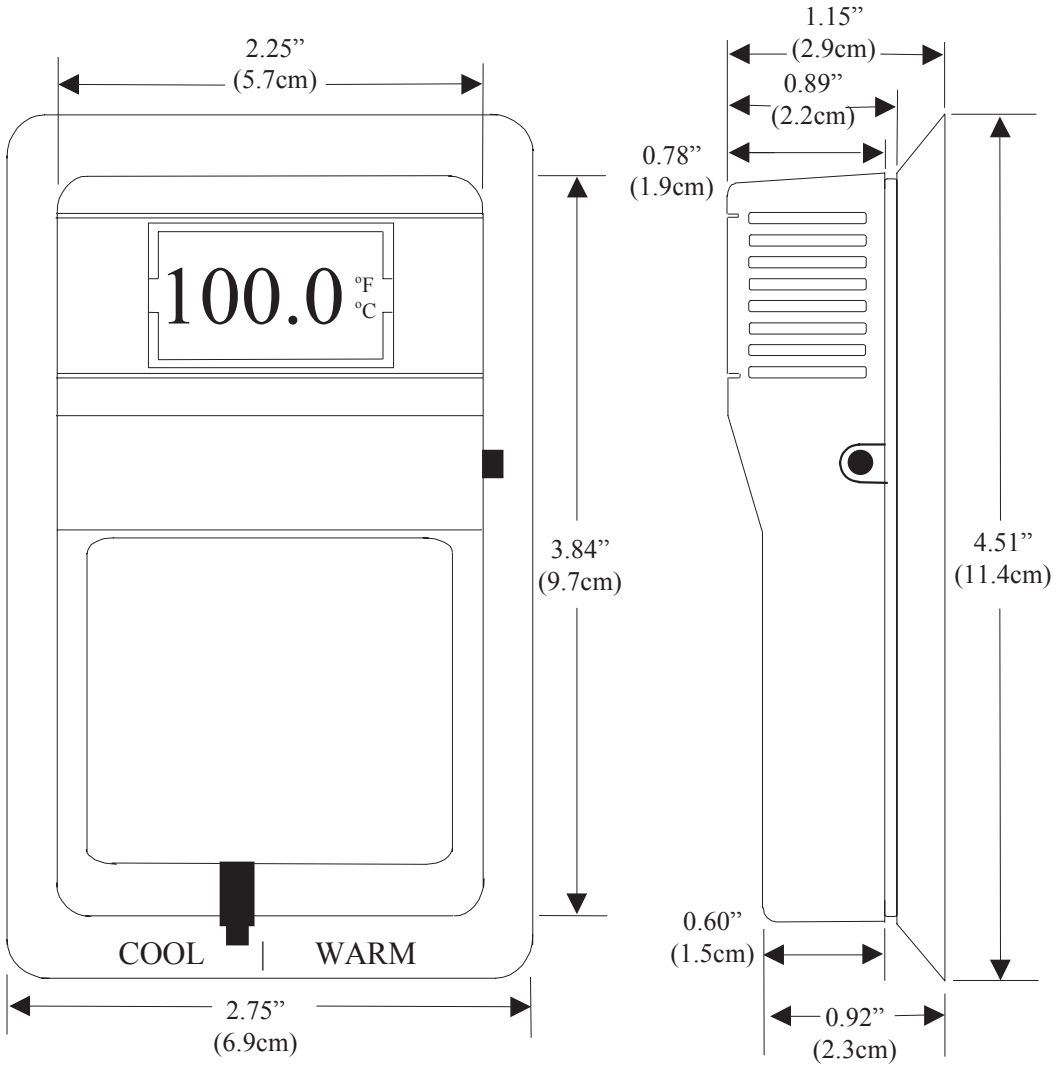
Wiring Diagrams available at www.workaci.com/instructions.htm

C00000159 Rev 4.pdf

Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Dimensions

Room



Ordering Information

-DF (LCD in Degrees F)
-DC (LCD in Degrees C)

LCD Display
See ACI temperature cut sheets for complete ordering options

2305 Pleasant View Rd. Middleton Industrial Park Middleton, WI 53562
PH: (608) 831-2585 FAX: (608) 831-7407

Product Data

A/TUC

Microprocessor Based Display with Temperature

Product Description

The microprocessor based A/TUC comes with an LCD display that can indicate room temperature, setpoint, fan speed, and occupied status. The unit can display temperature and setpoint using the F or C degrees scale. As an option, fan control can be provided for 2 to 5-speed fans with LCD indication of fan speed. Also an option, an override and override feedback support can be provided.

This unit supports single sensor operation for several common sensor types, and it provides the flexibility to choose from numerous sensor types and setpoint output options. The unit can also be configured to display the setpoint temperature only. Additionally, many options are field programmable.

All of these units come in an attractive beige colored ABS plastic enclosure. The A/TUC comes with a two year factory warranty. Please contact ACI for more information regarding the A/TUC.

Product Specifications

Supply Voltage	+5 VDC (Resistance Outputs only) +15-30VDC (Resistance, 0-5V, or 1-5V) +18-30VDC (0-10V, 2-10V, 0-20mA, 4-20mA) 24 VAC
Power Consumption	0.4 to 2 VA max
Temperature Display Accuracy	+/- 1°F (+/- 0.56°C)
Operating Temp. Range	40°F to 104°F (5°C to 40°C)
Analog Temperature Sensor Outputs	Resistive, 0-5V, 1-5V, 0-10V, 2-10V, 0-20mA, 4-20mA
Resistive Setpoint Accuracy	+/- 2% or better
Analog Setpoint Outputs	Resistive, 0-5V, 1-5V, 0-10V, 2-10V, 0-20mA, 4-20mA
Temperature Sensor	See Ordering Information
Communication Jack	See Ordering Information

Wiring Diagrams available at www.workaci.com/instructions.htm
C0000098 Rev 3.pdf

TUC

Attributes:

- **Microprocessor technology provides greater output flexibility**
- **Attractive enclosure with membrane keypad**
- **LCD displays multiple functions**

Applications:

- **Commercial Buildings**
- **Hotels**
- **High Profile Residential**
- **Schools /Universities**
- **Operating Suites**

Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Ordering Information for A/TUC

A/TUC -[ ] Sensor Type -[ ] Supply Voltage -[ ] Temp Scale -[ ] Resistive Setpoint Offset -[ ] Setpoint Range -[ ] Setpoint Action -[ ] Setpoint Scale -[ ] Override Option -[ ] Override Feedback -[ ] Fan Control Output -[ ] Fan Speed Indication -[ ] Comm Jack -[ ]

Sensor Type

100
1K-Nickel
1K-Balco
1K-Pt 375
1K-Pt 385
2K RTD
1.8K
2252
3K
ASI (3K-ASI)
5K
10K-AN (TYPE III)
10K-CP (TYPE II)
10K-CSI
20K
100K
C020 (0-20 mA)
C420 (4-20 mA)
V05 (0-5 VDC)
V15 (1-5 VDC)
V010 (0-10 VDC)
V210 (2-10 VDC)

Supply Voltage

5 (5VDC)
24 (+15-30VDC/VAC)

Temp Scale

°F
°C

Resistive Setpoint Offset

X *(Analog Output)*
0 Ohm
1K Ohm
2K Ohm
4.75K Ohm
10K Ohm
Custom *(Specify)*

Setpoint Range

R400 (400 Ohms)
R1K (1K Ohms)
R2K (2K Ohms)
R3K (3K Ohms)
R5K (5K Ohms)
R8.5K (8.5K Ohms)
R10K (10K Ohms)
R20K (20K Ohms)
R100K (100K Ohms)
C020 (Current 0-20mA)
C420 (Current 4-20mA)
V05 (Voltage 0-5 VDC)
V15 (Voltage 1-5 VDC)
V010 (Voltage 0-10 VDC)
V210 (Voltage 2-10 VDC)

Setpoint Action

DA (Direct)
RA (Reverse)

Setpoint Scale

(A) -2 to +2°F
(B) -3 to +3°F
(C) -5 to +5°F
(D) 50 to 90°F
(E) 55 to 85°F
(F) 60 to 80°F
(G) 60 to 85°F
(H) 65 to 80°F
(I) 65 to 85°F
(J) 55 to 90°F
(K) 55 to 95°F
(L) 68 to 76°F
Custom *(Specify)*

Override Option

NO (No Override)
ST (Short Sensor)
SS (Short Setpoint)
DC (Dry Contact)

Override Feedback

XX *(No Feedback)*
SW *(Dry Contact)*
0V *(Logic Low)*
5V *(Logic High)*
AC *(24 VAC)*

Fan Control Output

0-10K Ohms *(0, 2.5K, 5K, 7.5K, 10K)*
0-5V *(0-5VDC)*
0-10V *(0-10VDC)*
2-10V *(2-10VDC)*
0-20mA *(0-20mA)*
4-20mA *(4-20mA)*
Custom *(Upon Engineering Approval)*

Fan Speed Indication

(1) 2 speed On/Off
(2) 2 speed Auto/On
(3) 3 speed Off/Low/Hi
(4) 3 speed Auto/Off/On
(5) 4 speed Off/Low/Med/Hi
(6) 4 speed Auto/Off/Low/Hi
(7) 5 speed Auto/Off/Low/Med/Hi

Comm Jack

XXX (No Jack)
RJ4 4C (4-Pin 4 Cond. Jack)
RJ6 4C (6-Pin 4 Cond. Jack)
RJ6 6C (6-Pin 6 Cond. Jack)
RS-232 (3.5mm Stereo Jack)

Note: All of the Setpoint Scales are also offered in °C for all of the ranges that are listed above.

Notes: ***When using 4-20mA or 0-20mA outputs the unit must be powered with +18 to 30 VDC.***

When using 0-10VDC or 2-10VDC outputs, the unit must be powered with +18 to 30 VDC or 24VAC

For Dimentional Drawings please see the A/LCD Ordering Information

Examples: A/TUC -10K-AN -5 -°F -10K Ohm -R20K -DA -B -ST -SW - 0-10K -2 -XXX or A/TUC -10K-CP -24 -°C -X -C420 -DA -F -DC -SW -4-20mA -2 -RJ6C6

Product Data

A/TUCH

Microprocessor Based Display with Temperature and Relative Humidity

Product Description

The microprocessor-based A/TUCH Room Unit combines temperature and relative humidity space monitoring, with a temperature or relative humidity setpoint function, into one wall-mount package. The temperature output can be configured to have a resistance signal or standard analog output signals.

The A/TUCH Room Unit uses the same technology as the A/RH series for its relativity humidity sensor. Both the temperature and relative humidity functions can be adjusted in the field using single-point offsets, the temperature in 0.5° (F or C) steps and the relative humidity in 0.5% RH steps.

The A/TUCH Room Unit supports one setpoint function that can be configured for either temperature or relative humidity. The setpoint output is available in configurable resistance spans, or using one of the standard analog output signals. An override function can be configured to short the temperature output or the setpoint output. Additionally, the override can be configured as a dry contact signal. An optional override-acknowledge input uses a feedback signal from the Building Automation System to indicate the occupied mode on the LCD.

The A/TUCH room unit is available in an attractive beige colored ABS plastic enclosure and comes with a two-year limited warranty.

Product Specifications

Supply Voltage	+12-30VDC (Resistance, 0-5V, 0.5-4.5V, 1-5V) +18-30VDC (0-10V, 2-10V, 0-20mA, 4-20mA) 20-28 VAC (All)
Power Consumption	0.4 to 2 VA max
Temperature Accuracy	+/- 1°F (+/- 0.56°C)
Operating Temp. Range	40°F to 104°F (4.5°C to 40°C)
Analog Outputs	0-5V, 0.5-4.5V, 1-5V, 0-10V, 2-10V, 0-20mA, 4-20mA (500 ohms maximum load resistance on current outputs)
RH Range	0% to 100% RH
RH Accuracy at 77°F	20% to 95% RH +/- 2%, +/-3%, +/-5%
Setpoint Range	See ordering information
Setpoint Accuracy	+/- 5% Full Scale Output (Resistance) +/- 2% Full Scale Output (Analog)
Override Options	See ordering information
Storage Temperature	-4°F to 131°F (-20°C to 55°C)

Wiring Diagrams available at www.workaci.com/instructions.htm

C0000044 Rev 9.pdf

TUCH

Attributes:

- **Microprocessor technology provides greater output flexibility**
- **Attractive enclosure with membrane keypad**
- **Field adjustable temperature and RH offset**
- **LCD displays RH, Temp, and Setpoint**

Applications:

- **Commercial Buildings**
- **Hotels**
- **High Profile Residential**
- **Schools /Universities**
- **Surgical Suites**

Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Ordering Information for A/TUCH

A/TUCH -[ ]

Sensor Type -[ ]

100
1K-Nickel
1K-Balco
2K RTD
1.8K
2252
3K
ASI(3K-ASI)
5K
10K-AN (TYPE III)
10K-CP (TYPE II)
10K-CSI
20K
100K
C020 (Current 0-20mA)
C420 (Current 4-20mA)
V05 (Voltage 0-5 VDC)
V15 (Voltage 1-5 VDC)
V010 (Voltage 0-10 VDC)
V210 (Voltage 2-10 VDC)

Temp Scale -[ ]

°F
°C

Resistive Setpoint Offset -[ ]

X *(Analog Output)*
0 Ohm
51.1 Ohm
721 Ohm
750 Ohm
800 Ohm
1K Ohm
2K Ohm
3.57K Ohm
4.75K Ohm
8.25K Ohm
10K Ohm
Custom *(Specify)*

Setpoint Range -[ ]

R400 (400 Ohms)
R1K (1K Ohms)
R2K (2K Ohms)
R3K (3K Ohms)
R5K (5K Ohms)
R8.5K (8.5K Ohms)
R10K (10K Ohms)
R20K (20K Ohms)
R100K (100K Ohms)
V05 (Voltage 0-5 VDC)
V0545 (0.5-4.5 VDC)
V15 (Voltage 1-5 VDC)
V010 (Voltage 0-10 VDC)
V210 (Voltage 2-10 VDC)
None

Setpoint Action -[ ]

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

Setpoint Scale -[ ]

(A) -2 to +2°F
(B) -3 to +3°F
(C) -5 to +5°F
(D) 50°F to 90°F
(E) 55°F to 85°F
(F) 60°F to 80°F
(G) 60°F to 85°F
(H) 65°F to 80°F
(I) 65°F to 85°F
(J) 55°F to 90°F
(K) 55°F to 95°F
(L) 68°F to 76°F
(M) 55°F to 80°F
(N) 5°C to 35°C
(O) 5°C to 40°C
(P) 10°C to 30°C
(Q) 10°C to 35°C
(R) 10°C to 40°C
(S) 15°C to 25°C
(T) 15°C to 30°C
(U) 15°C to 35°C
(V) 20°C to 25°C
(W) 20°C to 30°C
(AA) 0% to 100%
(BB) 10% to 90%
(CC) 20% to 50%
(DD) 20% to 55%
(EE) 20% to 60%
(FF) 20% to 80%
(GG) 30% to 50%
(HH) 30% to 55%
(II) 30% to 60%
(JJ) 30% to 70%
(KK) 40% to 50%
(LL) 40% to 55%
(MM) 40% to 60%
(NN) 45% to 55%

← ***Note: All of the Setpoint Scales are also Offered in °C for all of the ranges that are listed above***

Override Option -[ ]

NO (No Override)
ST (Short Sensor)
SS (Short Setpoint)
DC (Dry Contact)

Override Feedback -[ ]

XX *(No Feedback)*
0V *(Logic Low)*
5V *(Logic High)*

%RH Accuracy -[ ]

2%
3%
5%

%RH Output -[ ]

C020 (0-20 mA)
C420 (4-20 mA)
V05 (0-5 VDC)
V0545 (0.5-4.5 VDC)
V15 (1-5 VDC)
V010 (0-10 VDC)
V210 (2-10 VDC)
Custom**

Comm Jack -[ ]

XXX (No Jack)
RJ4 4C (4pin 4 Conductor Jack)
RJ6 4C (6 pin 4 Conductor Jack)
RJ6 6C (6 pin 6 Conductor Jack)
RS-232 (3.5mm Stereo Phone Jack)

Certain configuration / options might not currently be available. Please contact ACI for further details.

Notes: ***When using 4-20mA or 0-20mA outputs the unit must be powered with +18 to 30 VDC.***

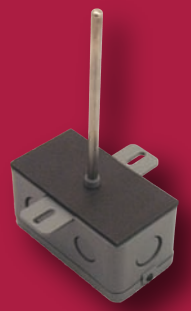
When using 0-10VDC or 2-10VDC outputs, the unit must be powered with +18 to 30 VDC or 24VAC

For Dimentional Drawings please see the A/LCD Ordering Information

Temperature Sensor Configurations

Room

The ACI/Infinity II is the newest wall-mount enclosure from Automation Components, Inc. The most important innovation is the development of four-way airflow capability. This allows the enclosure to be fitted with numerous options, and no self-heating errors. Options include setpoint, override, communication jack, and LCD.



Duct

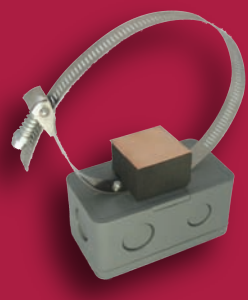
The ACI Duct Mount configuration has a built in mounting flange for quick installation and a foam pad to dampen vibrations. The sensing element is double encapsulated to avoid sensor failures caused by moisture infiltration. Most sensors come in lengths of 4", 8", 12" and 18". Custom lengths may be available as upon requst. They can be ordered with a standard plastic enclosure, a galvanized metal box, or upgraded to a 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. They are designed to be mounted flush to an exterior wall.

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 includes a two part 304 stainless steel thermowell. This product can also be ordered with an optional galvanized metal box, NEMA 3R or NEMA 4X enclosure.



Strap

The ACI Strap On sensor comes with a plastic enclosure. It has a sensor potted to the back side of a copper plate and with a foam pad creates compression when the strap worm drive is tightened. This creates a good therrmal transfer around pipes 2" to 5" in diameter. Extra straps can be ordered for larger diameter pipes. This product can also be ordered with a galvanized metal box or a NEMA 4X enclosure.

Temperature Sensor Configurations

Averaging

ACI has several options for getting an average temperature reading. Most common is the flexible copper tube type, which comes in lengths of 8', 12', and 24'. Flexible Wire and Rigid Probe averaging sensors are also available in various lengths.

Stainless Plate

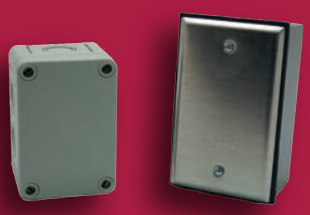
The ACI Stainless Plate has a sensor potted to its backside and is thermally shielded from temperatures inside the wall by an insulated foam pad. Options include an override and RS232 communication port.

Submersible

The ACI Submersible Sensors can be fully submersed in water and come in lengths up to 30'. Please call for sensor type availability.

Button

The ACI Button Sensor is designed to be aesthetically pleasing for higher profile applications. Due to its size and appearance, it is a perfect choice for applications where you don't want to notice a room sensor.



Enclosure Types

ACI has several types of enclosures to choose from. They include plastic and metal electrical box types, NEMA 3R, NEMA 4X, and Euro Style.

Product Data

A/100 Series
A/1K Series

Platinum RTD Temperature Sensors

Product Description

The A/100 and A/1K Series temperature sensors incorporate a Class A, Thin Film Platinum RTD sensor which conforms to DIN-IEC-751 platinum RTD standards. These sensors are available in either two or three-wire configurations, incorporating high accuracy and interchangeability throughout a wide operating temperature range.

These units are offered in Room, Room with Set Point, Room with Override, Room with Setpoint and Override, and Room with Setpoint, Override, and RJ11 Jack, Stainless Steel Duct and Duct without Box, Immersion, Stainless Plate, Raw, Bendable Copper and Stainless Steel Rigid Averaging, Strap-On, Bullet Probe and Outdoor Air Configurations.

All ACI Room sensors may be ordered with an optional setpoint (see chart on the following page), override, or with a 4 pin RJ11 or 6 pin RJ12 communication jack with terminal blocks, for remote programming. These units are also available with a 1/8" RS232 Stereo Jack.

Product Specifications

Output	100 Ohms @ 32°F (0°C) 1K Ohms @ 32°F (0°C)
Accuracy	+/- 0.06% @ 32°F (0°C) Single Point +/- 1.0 Ohm @ 70°F (Averaging)
Stability	less than +/- 0.1°C drift
Repeatability	+/-0.2°C (+/-0.36°F)
Operating Temp Range: **Single Point** **Averaging**	 -58 to 392°F (-50 to 200°C) -50 to 275°F (-45.5 to 134.8°C)
Temp. Coefficient	0.00385 Ohm/Ohm/°C
Standardization	DIN-IEC-751(formerly DIN 43760)
Resistance Characteristics	+/- 0.06% Class A (Standard) +/- 0.12% Class B (Averaging)
For sensors with Display option, see the **LCD Series** cut sheet	

Wiring Diagrams available at www.workaci.com/instructions.htm
C0000100 Rev 1.pdf

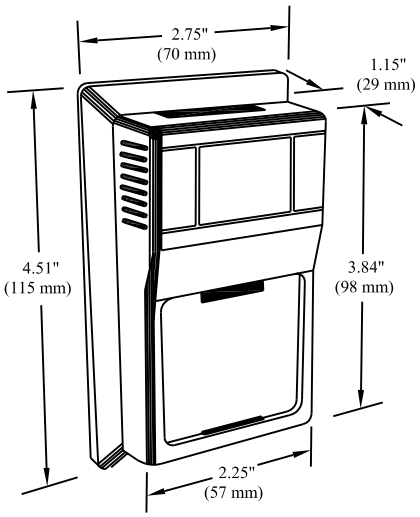
RTD

Attributes:
- **Double Potting Process to avoid Moisture Issues**
- **European enclosure for outside air**
- **Class A Standard exceeds most specifications**
- **Four-way Airflow design for wall mount**
- **Can be used with a transmitter to provide a 4 to 20mA signal**

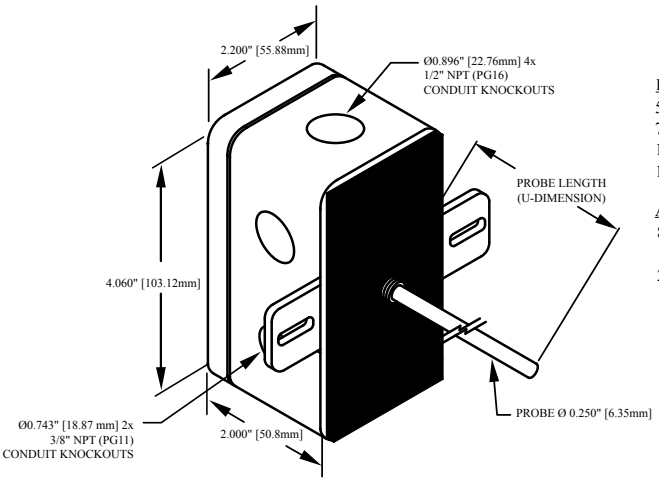
Applications:
- **DDC Systems**
- **Refrigeration Systems**
- **OEM / Industrial**
- **Light Industrial**

Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Room



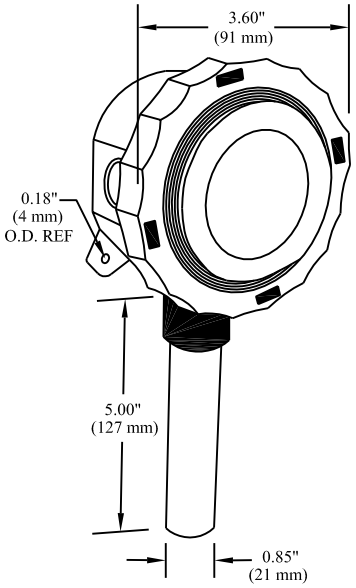
Duct / Averaging



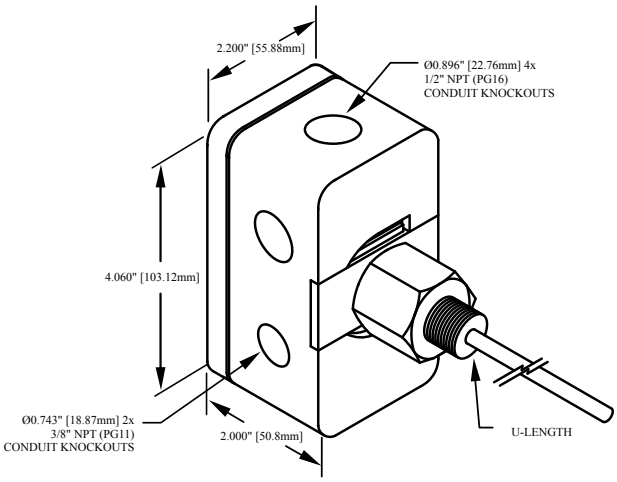
Duct Insertion (U-Dimension)
5.5" (89 mm)
7.5" (191 mm)
11.5" (292 mm)
17.5" (445 mm)

Averaging
8' (2.4 m)
12' (3.7 m)
24' (7.3 m)

Outside Air



Immersion



Well Insertion (U-Length)
2.50" (64 mm)
4.00" (102 mm)
6.25" (158.75 mm)

Ordering Information

Sensor	# Wires	Configuration	Communication Jack[1]	Pot Value[1]	Setpoint Indicator[1]	Pot Action[1]	Display[1]	Housing Type[2]
A/ [ ]	-[ ]	-[ ]	-[ ]	-[ ]	-[ ]	-[ ]	-[ ]	-[ ]
100	**2W** (2-Wire)	**R** - Room	**RJ4** (4 Pin RJ11)	**400**	**Cool | Warm**	**DA** (Direct)	( ) No Display (Standard)	( ) Plastic Housing (Standard)
1K	**3W** (3-Wire)	**RS** - Room w/ Setpoint	**RJ6** (6 Pin RJ12)	**1K**	**55 to 85**	**RA** (Reverse)	**(DF)** LCD Display (Degrees F)	**(GD)** Galvanized
		RO - Room w/ Override	**RS232** (Stereo Jack)	**2K**	**10 to 30° C**		**(DC)** LCD Display (Degrees C)	**(BB)** NEMA 3R
		RSO - Room w/ Setpoint & Override		**3K**				**(4X)** NEMA 4X
		D - Duct 4", 8", 12", 18"		**5K**				
		DO -Duct without box 4", 8", 12", 18"		**8.5K**				
		I - Immersion 2.5", 4", 6"		**10K**				
		A - Bendable Copper Averaging 12', 24'		**20K**				
		RA - Rigid Averaging 18", 24", 36"		**100K**				
		S - Strap On						
		O - Outdoor Air						
		RP -Remote Probe w/6'Leads						
		SP - Stainless Plate						
		BP - Bullet Probe						
		W - Raw						
		BBS - Brass Button Sensor						
		SBS - Stainless Button Sensor						

[1]These Options are only available on ACI's Room Configurations.

[2]Duct, Immersion, Bendable Copper and Rigid Averaging available with optional NEMA 3R (BB), NEMA 4X (4X) enclosures or Galvanized Junction Box (GD).

Strap-On Sensors are available with an optional NEMA 4X (4X) or Galvanized Junction Box (GD)

2305 Pleasant View Rd. Middleton Industrial Park Middleton, WI 53562
PH: (608) 831-2585 FAX: (608) 831-7407

"First in Sensor Quality"

Product Data

A/1K Nickel Series

Nickel Temperature Sensor

Product Description

The A/1K-Nickel Series temperature sensors incorporate a thin film RTD sensor, which provides a predictable output over the specified temperature range of -40 to 300°F. These sensors are available in a two-wire configuration incorporating high accuracy and interchangeability throughout a wide operating temperature range. (See web page for complete curve/chart specifications)

These units are offered in Room, Room with Set Point, Room with Override, Room with Setpoint and Override, and Room with Setpoint, Override, and RJ11 Jack, Stainless Steel Duct and Duct without Box, Immersion, Stainless Plate, Raw, Strap-On, Bullet Probe, Button Sensor and Outdoor Air Configurations.

All ACI Room sensors may be ordered with an optional setpoint (see chart on the following page), override, or with a 4 pin RJ11 or 6 pin RJ12 communication jack with terminal blocks, for remote programming. These units are also available with a 1/8" RS232 Stereo Jack.

Product Specifications

Output	1K Ohms @ 70°F (21°C)
Temp. Coefficient	0.00527 Ohm/Ohm/°C
Accuracy	Temp / Resistance / Accuracy -50°F / 674 Ohms / +/- 1.4°F -30°F / 725 Ohms / +/- 1.2°F 32°F / 892 Ohms / +/- 0.5°F 70°F / 1000 Ohms / +/- 0.4°F 170°F / 1314 Ohms / +/- 1.3°F 250°F / 1597 Ohms / +/- 1.7°F
Tolerance T<0°C (32°F)	+/-0.4 + 0.028 * T(°C)
Tolerance T>0°C (32°F)	+/-0.4 + 0.007 * T(°C)
Operating Temp. Range	-40 to 300°F (0 to 148.9°C)
Operating RH Range	0 to 95% RH, non condensing
For sensors with Display option, see the **LCD Series** cut sheet	

Wiring Diagrams available at www.workaci.com/instructions.htm
C0000101 Rev 1.pdf

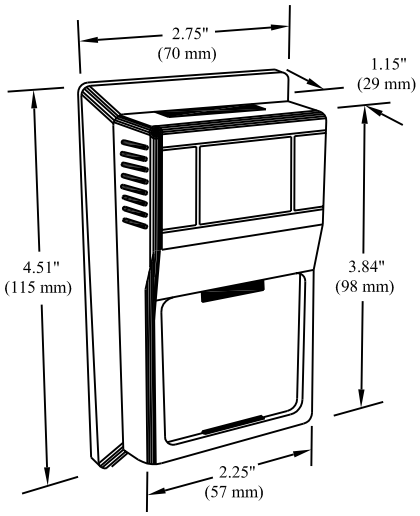
RTD

Attributes
- Positive Temp. Coefficient (PTC)
- Two Year Warranty
- Double Potting Process avoids moisture issues
- Non-polarity sensitive

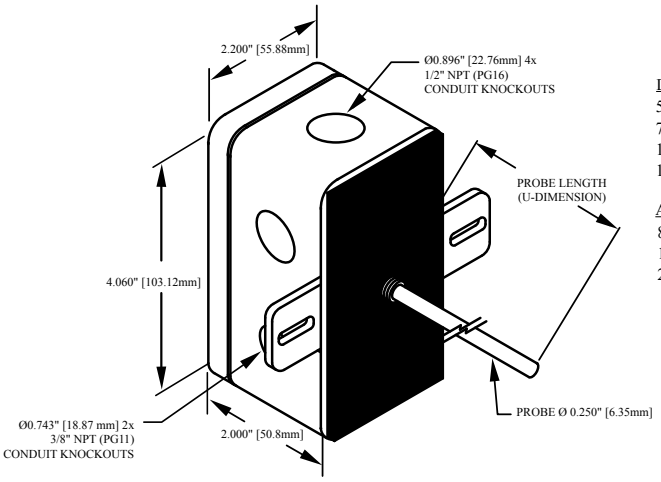
Applications
- OEM/Industrial
- Commercial
- Process Control
- DDC Control Systems

Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Room



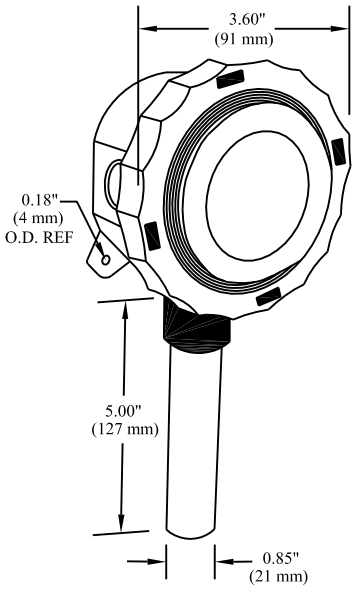
Duct / Averaging



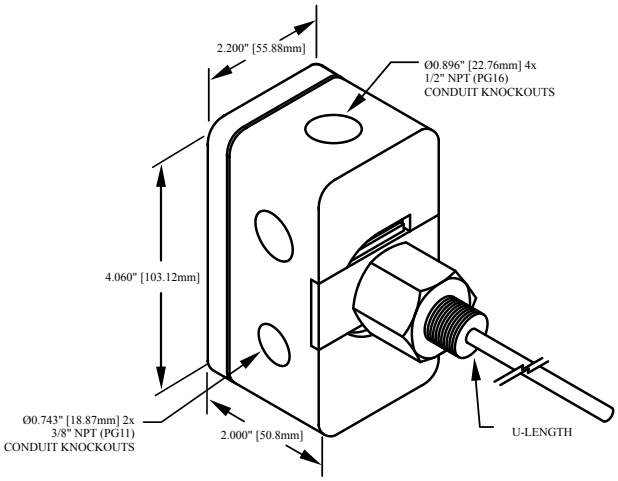
Duct Insertion (U-Dimension)
5.5" (89 mm)
7.5" (191 mm)
11.5" (292 mm)
17.5" (445 mm)

Averaging
8' (2.4 m)
12' (3.7 m)
24' (7.3 m)

Outside Air



Immersion



Well Insertion (U-Length)

2.50" (64 mm)
4.00" (102 mm)
6.25" (158.75 mm)

Ordering Information

Sensor	Configuration	Communication Jack[1]	Pot Value[1]	Setpoint Indicator[1]	Pot Action[1]	Display[1]	Housing Type[2]
A/ [ ]	-[ ]	-[ ]	-[ ]	-[ ]	-[ ]	-[ ]	-[ ]
1K-NI	**R -** Room	**RJ4** (4 Pin RJ11)	**400**	**Cool | Warm**	**DA** (Direct)	( ) No Display (Standard)	( ) Plastic Housing (Standard)
	RS - Room w/ Setpoint	**RJ6** (6 Pin RJ12)	**1K**	**55 to 85**	**RA** (Reverse)	**(DF)** LCD Display (Degrees F)	**(GD)** Galvanized
	RO - Room w/ Override	**RS232** (Stereo Jack)	**2K**	**10 to 30°C**		**(DC)** LCD Display (Degrees C)	**(BB)** NEMA 3R
	RSO - Room w/ Setpoint & Override		**3K**				**(4X)** NEMA 4X
	D - Duct 4", 8", 12", 18"		**5K**				
	DO -Duct without box 4", 8", 12", 18"		**8.5K**				
	I - Immersion 2.5", 4", 6"		**10K**				
	A - Bendable Copper Averaging 12', 24'		**20K**				
	S - Strap On		**100K**				
	O - Outdoor Air						
	RP -Remote Probe w/6'Leads						
	SP - Stainless Plate						
	BP - Bullet Probe						
	W - Raw						
	BBS - Brass Button Sensor						
	SBS - Stainless Button Sensor						

[1]These Options are only available on ACI's Room Configurations.

[2]Duct, Immersion, Bendable Copper and Rigid Averaging available with optional NEMA 3R (BB), NEMA 4X (4X) enclosures or Galvanized Junction Box (GD).

Strap-On Sensors are available with an optional NEMA 4X (4X) or Galvanized Junction Box (GD)

2305 Pleasant View Rd. Middleton Industrial Park Middleton, WI 53562
PH: (608) 831-2585 FAX: (608) 831-7407

"First in Sensor Quality"

Product Data

A/BALCO Series

Temperature Sensor

Product Description

The A/1K-Balco Series temperature sensors incorporate a thin film RTD sensor, which provides a predictable output over the specified temperature range of -40 to 240ºF.

These sensors are available in a two-wire configuration incorporating high accuracy and interchangeability throughout a wide operating temperature range.

These units are offered in Room, Room with Set Point, Room with Override,Room with Setpoint and Override, and Room with Setpoint, Override, and RJ11 Jack, Stainless Steel Duct and Duct without Box, Immersion, Stainless Plate, Raw, Strap-On, Bullet Probe, Button Sensor and Outdoor Air Configurations.

All ACI Room sensors may be ordered with an optional setpoint (see chart on the following page), override, or with a 4 pin RJ11 or 6 pin RJ12 communication jack with terminal blocks for remote programming.

Product Specifications

Sensor Output	1000 Ohms @ 70ºF (21ºC)
Temp. Coefficient	2.2 Ohms /deg F
Temp. Operating Range	-40 to 240ºF (-40 to 116ºC)
Accuracy	+/- 0.1%
For sensors with Display option, see the **LCD Series** cut sheet	

Wiring Diagrams available at www.workaci.com/instructions.htm
C0000117 Rev 1.pdf

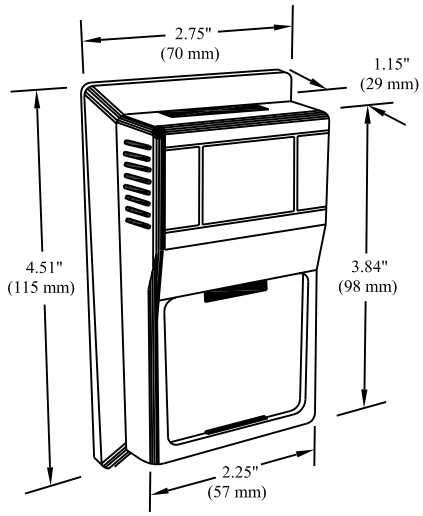
RTD

Attributes
- **Specialized Temp. Sensor**
- **Double Potting Process avoids moisture issues**
- **Non-polarity sensitive**

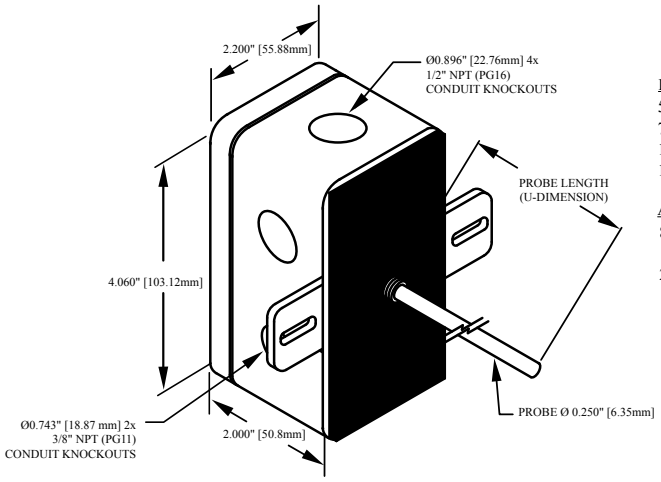
Applications
- **OEM/Industrial**
- **Light Industrial**
- **DDC Systems**

Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Room



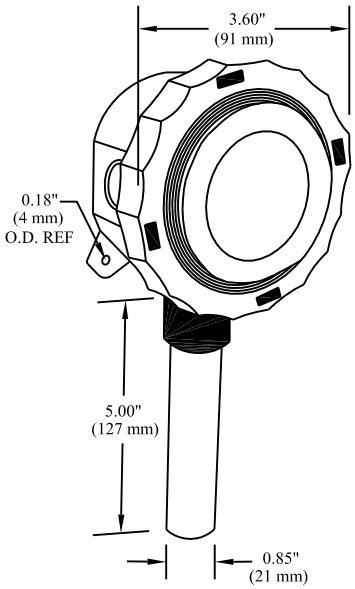
Duct / Averaging



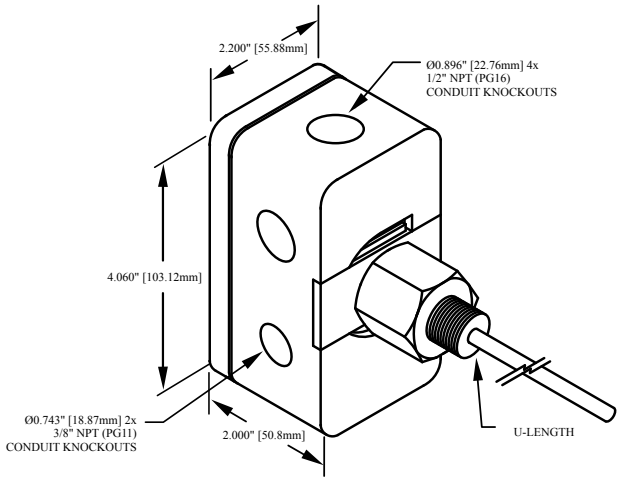
Duct Insertion (U-Dimension)
5.5" (89 mm)
7.5" (191 mm)
11.5" (292 mm)
17.5" (445 mm)

Averaging
8' (2.4 m)
12' (3.7 m)
24' (7.3 m)

Outside Air



Immersion



Well Insertion (U-Length)

2.50" (64 mm)
4.00" (102 mm)
6.25" (158.75 mm)

Ordering Information

Sensor	Configuration	Communication Jack[1]	Pot Value[1]	Setpoint Indicator[1]	Pot Action[1]	Display[1]	Housing Type[2]
A/ [ ]	-[ ]	-[ ]	-[ ]	-[ ]	-[ ]	-[ ]	-[ ]
Balco	**R -** Room	**RJ4** (4 Pin RJ11)	**400**	**Cool | Warm**	**DA** (Direct)	( ) No Display (Standard)	( ) Plastic Housing (Standard)
	RS - Room w/ Setpoint	**RJ6** (6 Pin RJ12)	**1K**	**55 to 85**	**RA** (Reverse)	**(DF)** LCD Display (Degrees F)	**(GD)** Galvanized
	RO - Room w/ Override	**RS232** (Stereo Jack)	**2K**	**10 to 30° C**		**(DC)** LCD Display (Degrees C)	**(BB)** NEMA 3R
	RSO - Room w/ Setpoint & Override		**3K**				**(4X)** NEMA 4X
	D - Duct 4", 8", 12", 18"		**5K**				
	DO -Duct without box 4", 8", 12", 18"		**8.5K**				
	I - Immersion 2.5", 4", 6"		**10K**				
	S - Strap On		**20K**				
	O - Outdoor Air		**100K**				
	RP -Remote Probe w/6'Leads						
	SP - Stainless Plate						
	BP - Bullet Probe						
	W - Raw						
	BBS - Brass Button Sensor						
	SBS - Stainless Button Sensor						

[1]These Options are only available on ACI's Room Configurations.

[2]Duct, Immersion, Bendable Copper and Rigid Averaging available with optional NEMA 3R (BB), NEMA 4X (4X) enclosures or Galvanized Junction Box (GD).

Strap-On Sensors are available with an optional NEMA 4X (4X) or Galvanized Junction Box (GD)

2305 Pleasant View Rd. Middleton Industrial Park Middleton, WI 53562
PH: (608) 831-2585 FAX: (608) 831-7407

Product Data

A/AN Series
A/CP Series
A/3K Series
A/1.8K Series
A/20K Series

Product Description

The A/10K-AN (Type III), A/10K-CP (Type II), A/3K, A/1.8K and A/20K Series temperature sensors are thermistor type sensors. These sensors provide a predictable output over a specified temperature range to meet each manufacturer's required input values. (See web page for complete curve chart specifications)

These units are offered in Room, Room with Set Point, Room with Override, Room with Setpoint and Override, and Room w/ Setpoint, Override, and RJ11 Jack, Stainless Steel Duct and Duct without Box, Immersion, Stainless Plate, Raw, Bendable Copper and Stainless Steel Rigid Averaging, Strap-On, Bullet Probe, Button Sensor, and Outdoor Air Configurations.

All ACI Room sensors may be ordered with an optional setpoint (see chart on the following page), override, or with a 4 pin RJ11 or 6 pin RJ12 communication jack with terminal blocks, for remote programming. These units are also available with a 1/8" RS232 Stereo Jack.

Product Specifications

Sensor Output	10K Ohms @ 77°F (25°C) Type III 10K Ohms @ 77°F (25°C) Type II 3K Ohms @ 77°F (25°C) 1.8K Ohms @ 77°F (25°C) 20K Ohms @ 77°F (25°C)
Accuracy (0 to 70°C)	+/-0.2°C (+/-0.36°F)
Stability	+/- 0.13°C (0.23°F)
Operating Temperature Range	-40 to 302°F (-40 to 150°C)
Operating Humidity	0 to 90% RH non-condensing
Interchangeability	+/- 0.2°C (+/-0.36°F)
Power Dissipation Constant	3 mW / °C
For sensors with Display option, see **LCD Series** Temp display cut sheet	

Thermistor

Attributes

- **Offer high accuracy and interchangeability over a wide temperature range.**
- **Higher resistance output relative to Platinum RTD's**
- **Non-polarity sensitive**

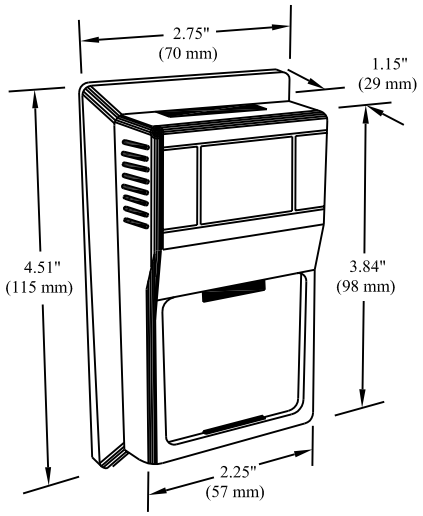
Applications

- **OEM / Industrial**
- **Light Industrial**
- **DDC Systems**

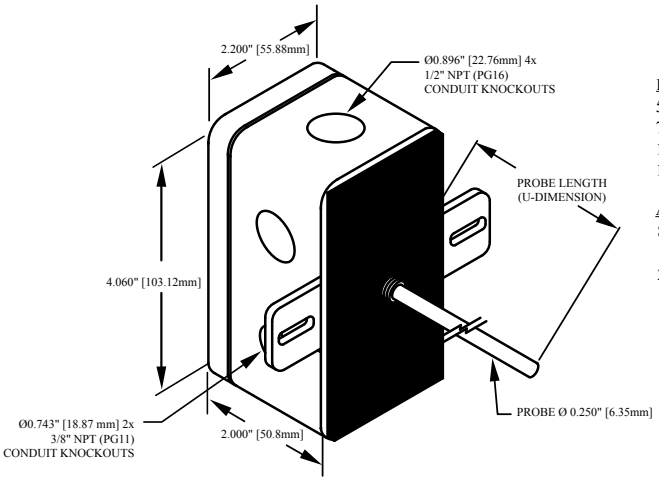
Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Wiring Diagrams available at www.workaci.com/instructions.htm
c0000102rev1.pdf

Room



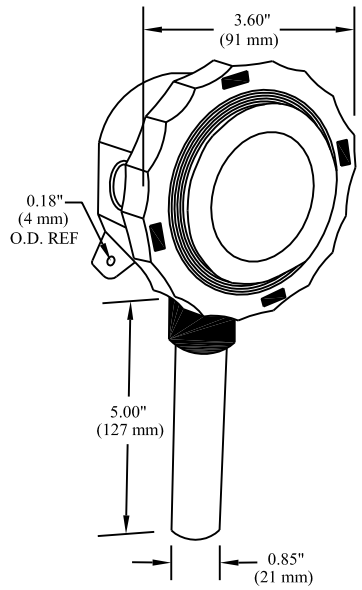
Duct / Averaging



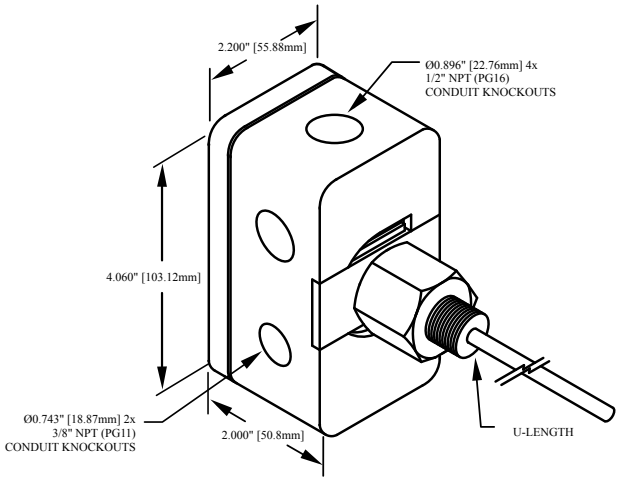
Duct Insertion (U-Dimension)
5 .5" (89 mm)
7.5" (191 mm)
11.5" (292 mm)
17.5" (445 mm)

Averaging
8' (2.4 m)
12' (3.7 m)
24' (7.3 m)

Outside Air



Immersion



Well Insertion (U-Length)
2.50" (64 mm)
4.00" (102 mm)
6.25" (158.75 mm)

Ordering Information

Sensor: **A/ [ ]**

CP (Type II)
AN (Type III)
3K
1.8K
20K

Configuration: **-[ ]**

R - Room
RS - Room w/ Setpoint
RO - Room w/ Override
RSO - Room w/ Setpoint & Override
D - Duct 4", 8", 12", 18"
DO -Duct without box 4", 8", 12", 18"
I - Immersion 2.5", 4", 6"
A - Bendable Copper Averaging 12', 24'
RA - Rigid Averaging 18", 24", 36"
FA - Flexible Averaging (Cable)18", 24", 36"
S - Strap On
O - Outdoor Air
RP -Remote Probe w/6'Leads
SP - Stainless Plate
BP - Bullet Probe
W - Raw
BBS - Brass Button Sensor
SBS - Stainless Button Sensor

Communication Jack[1]: **-[ ]**

RJ4 (4 Pin RJ11)
RJ6 (6 Pin RJ12)
RS232 (Stereo Jack)

Pot Value[1]: **-[ ]**

400
1K
2K
3K
5K
8.5K
10K
20K
100K

Setpoint Indicator[1]: **-[ ]**

Cool | Warm
55 to 85
10 to 30° C

Pot Action[1]: **-[ ]**

DA (Direct)
RA (Reverse)

Display[1]: **-[ ]**

( ) No Display (Standard)
(DF) LCD Display (Degrees F)
(DC) LCD Display (Degrees C)

Housing Type[2]: **-[ ]**

( ) Plastic Housing (Standard)
(GD) Galvanized
(BB) NEMA 3R
(4X) NEMA 4X

[1]These Options are only available on ACI's Room Configurations.

[2]Duct, Immersion, Bendable Copper and Rigid Averaging available with optional NEMA 3R (BB), NEMA 4X (4X) enclosures or Galvanized Junction Box (GD).

Strap-On Sensors are available with an optional NEMA 4X (4X) or Galvanized Junction Box (GD)

2305 Pleasant View Rd. Middleton Industrial Park Middleton, WI 53562
PH: (608) 831-2585 FAX: (608) 831-7407

"First in Sensor Quality"

Product Data

A/100KS Series
A/2252 Series
A/CSI Series
A/5K Series

Temperature Sensor

Product Description

The A/100KS, A/2252, A/CSI and A/5K Series temperature sensors are thermistor type sensors. These sensors provide a predictable output over a specified temperature range to meet each manufacturer's required input values. (See web page for complete curve chart specifications)

These units are offered in Room, Room with Set Point, Room with Override, Room with Setpoint and Override, and Room w/ Setpoint, Override, and RJ11 Jack, Stainless Steel Duct and Duct without Box, Immersion, Stainless Plate, Raw, Bendable Copper and Stainless Steel Rigid Averaging, Strap-On, Bullet Probe, Button Sensor, and Outdoor Air Configurations.

All ACI Room sensors may be ordered with an optional setpoint (see chart on the following page), override, or with a 4 pin RJ11 or 6 pin RJ12 communication jack with terminal blocks, for remote programming. These units are also available with a 1/8" RS232 Stereo Jack.

Product Specifications

Output	100K Ohms @ 77°F (25°C) 10K Ohms @ 77°F (25°C) CSI 2252 Ohms @ 77°F (25°C) 5000 Ohms @ 77°F (25°C)
Operating Temperature Range	-40 to 302°F (-40 to 150°C)
Interchangeability	+/- 0.2°C (+/-0.36°F)
Power Dissipation Constant	3 mW / °C
Stability	+/- 0.13°C (0.23°F)
Accuracy (0 to 70°C)	+/-0.2°C (+/-0.36°F)
Operating Humidity	0 to 90% RH non-condensing
For sensors with Display option, see the **LCD Series** cut sheet	

Wiring Diagrams available at www.workaci.com/instructions.htm
c0000102rev1.pdf

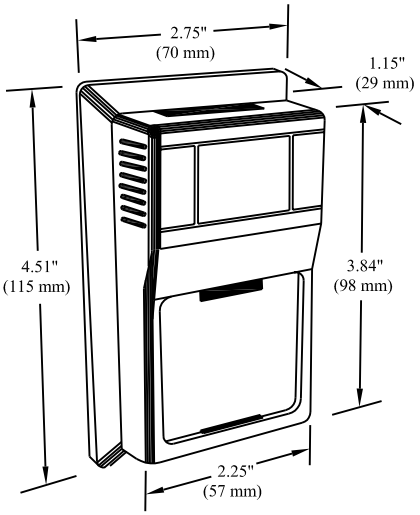
Thermistor

Attributes
- **Offer high accuracy and interchangeability over a wide temperature range.**
- **Higher resistance output relative to Platinum RTD's**
- **Non-polarity sensitive**

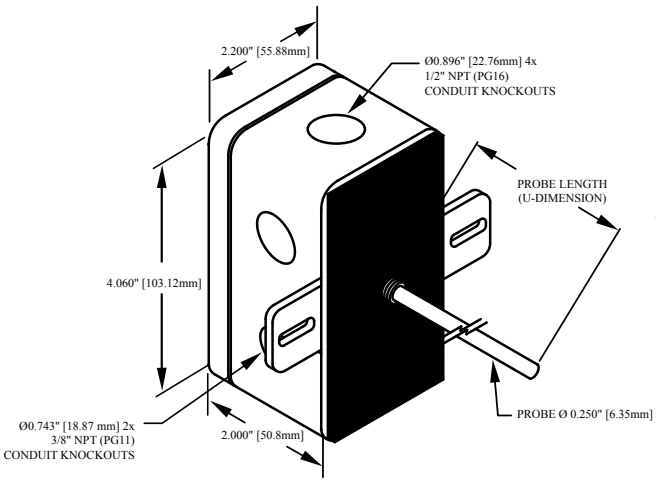
Applications
- **OEM / Industrial**
- **Light Industrial**
- **DDC Systems**

Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Room



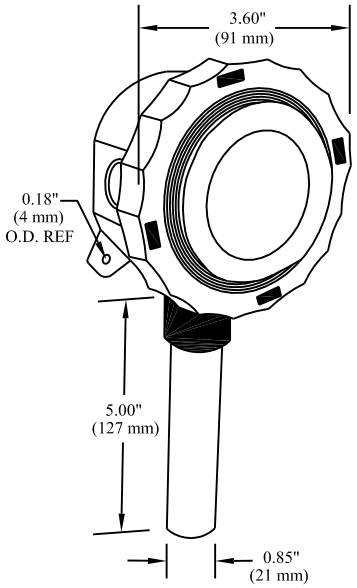
Duct / Averaging



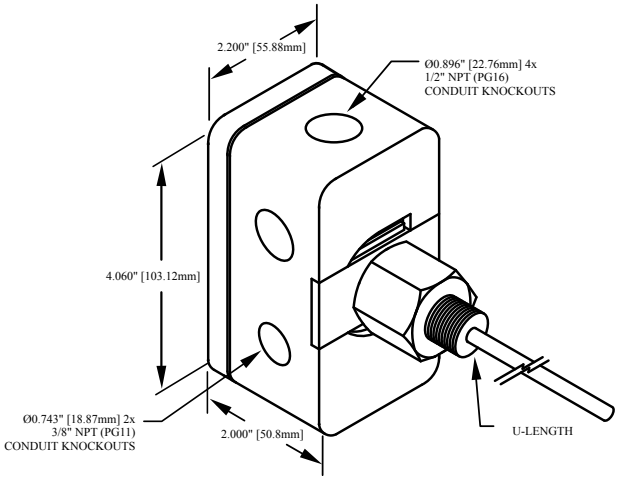
Duct Insertion (U-Dimension)
5.5" (89 mm)
7.5" (191 mm)
11.5" (292 mm)
17.5" (445 mm)

Averaging
8' (2.4 m)
12' (3.7 m)
24' (7.3 m)

Outside Air



Immersion



Well Insertion (U-Length)
2.50" (64 mm)
4.00" (102 mm)
6.25" (158.75 mm)

Ordering Information

Sensor
A/ [ ]
100KS
2252
CSI
5K

Configuration
-[ ]
R - Room
RS - Room w/ Setpoint
RO - Room w/ Override
RSO - Room w/ Setpoint & Override
D - Duct 4", 8", 12", 18"
DO -Duct without box 4", 8", 12", 18"
I - Immersion 2.5", 4", 6"
A - Bendable Copper Averaging 12', 24'
RA - Rigid Averaging 18", 24", 36"
S - Strap On
O - Outdoor Air
RP -Remote Probe w/6'Leads
SP - Stainless Plate
BP - Bullet Probe
W - Raw
BBS - Brass Button Sensor
SBS - Stainless Button Sensor

Communication Jack[1]
-[ ]
RJ4 (4 Pin RJ11)
RJ6 (6 Pin RJ12)
RS232 (Stereo Jack)

Pot Value[1]
-[ ]
400
1K
2K
3K
5K
8.5K
10K
20K
100K

Setpoint Indicator[1]
-[ ]
Cool | Warm
55 to 85
10 to 30° C

Pot Action[1]
-[ ]
DA (Direct)
RA (Reverse)

Display[1]
-[ ]
( ) No Display (Standard)
(DF) LCD Display (Degrees F)
(DC) LCD Display (Degrees C)

Housing Type[2]
-[ ]
( ) Plastic Housing (Standard)
(GD) Galvanized
(BB) NEMA 3R
(4X) NEMA 4X

[1]These Options are only available on ACI's Room Configurations.

[2]Duct, Immersion, Bendable Copper and Rigid Averaging available with optional NEMA3R (BB), NEMA 4X (4X) enclosures or Galvanized Junction Box (GD).

Strap-On Sensors are available with an optional NEMA 4X (4X) or Galvanized Junction Box (GD)

2305 Pleasant View Rd. Middleton Industrial Park Middleton, WI 53562
PH: (608) 831-2585 FAX: (608) 831-7407

Product Data

A/592 Series
A/592-10K Series

Temperature Sensor

Semiconductor

Attributes
- System Specfic Sensor
- uA and mV output

Applications
- OEM / Industrial
- Light Industrial
- DDC Systems

Product Description

The A/592 Series semiconductor type temperature sensors provide accurate temperature measurement and control.

The A/592 provides a 248 to 378 uA output throughout the temperature range of -25 to 105ºC (-13 to 221ºF).

The A/592-10K uses a precision 10K (0.1%) resistor to convert the current output to a three-wire 2.48 to 3.78 VDC output.

These units are calibrated using a NIST traceable thermometer to ensure the highest possible accuracy. Each unit will be individually calibrated and labeled with its offset never to exceed 2.2ºC (4ºF).

These units are offered in Room, Room with Setpoint, Room with Override, Room with Setpoint and Override, Duct, Immersion, Stainless Plate, Raw, Averaging, Strap-On, and Outside Air configurations.

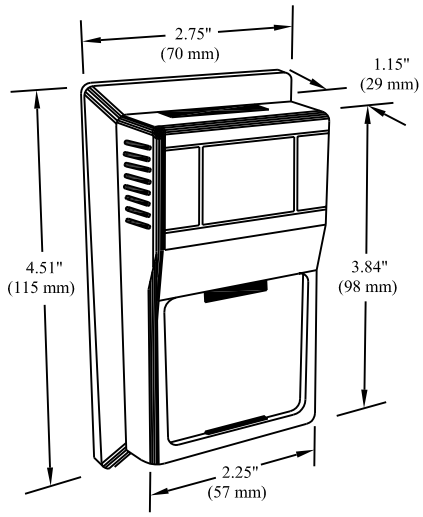
Product Specifications

Supply Voltage	+4 to 30 VDC
Output	A/592 - 248 to 378 uA
Output	A/592-10K - 2.48 to 3.78 VDC
Temperature Coefficient	A/592 - 1 uA/ºC (0.556 uA/ºF)
Temperature Coefficient	A/592-10K - 10 mV/C (5.556 mV/ºF)
Sensor Accuracy	+/- 1.26ºF @ 77ºF (+/- 0.70C @ 25C)
Repeatability	+/- 0.18ºF (+/- 0.10ºC)
Linearity	+/- 0.27ºF max from 32 to 158ºF
Temperature Range	-13 to 221ºF (-25 to 105ºC)
Offset	+/- 4ºF max (+/- 2.2ºC max)
For sensors with Display option, see the **LCD Series** cut sheet	

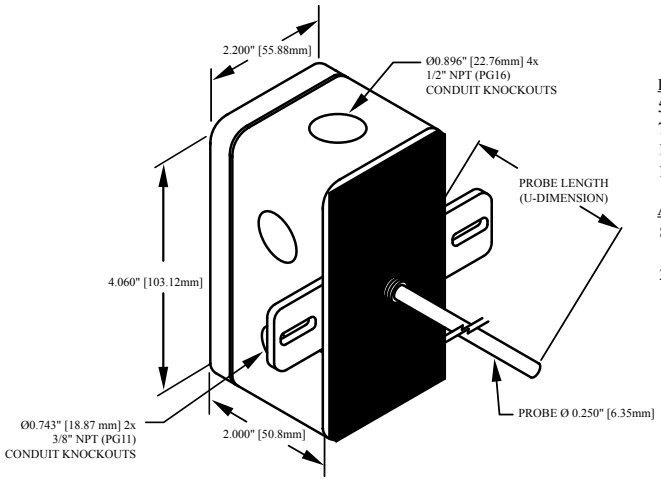
Wiring Diagrams available at www.workaci.com/instructions.htm
C0000120 Rev 1.pdf

Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Room



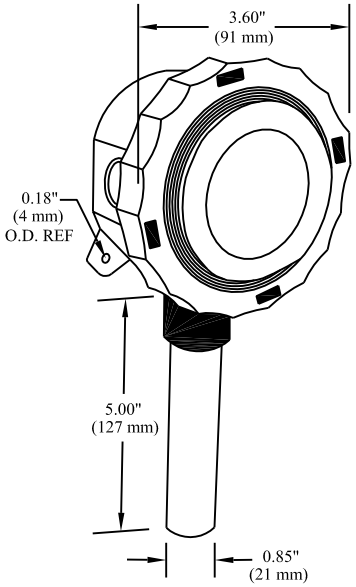
Duct / Averaging



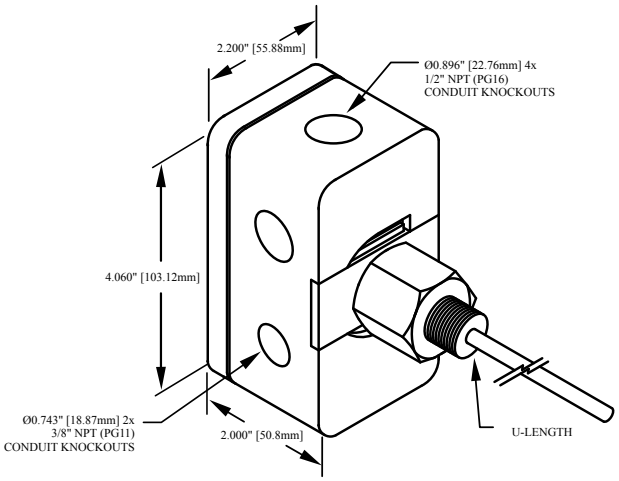
Duct Insertion (U-Dimension)
5.5" (89 mm)
7.5" (191 mm)
11.5" (292 mm)
17.5" (445 mm)

Averaging
8' (2.4 m)
12' (3.7 m)
24' (7.3 m)

Outside Air



Immersion



Well Insertion (U-Length)
2.50" (64 mm)
4.00" (102 mm)
6.25" (158.75 mm)

Ordering Information

A/ [ ] Sensor
- **592**
- **592-10K**

-[ ] Configuration
- **R -** Room
- **RS -** Room w/ Setpoint
- **RO -** Room w/ Override
- **RSO -** Room w/ Setpoint & Override
- **D -** Duct 4", 8", 12", 18"
- **DO -**Duct without box 4", 8", 12", 18"
- **I -** Immersion 2.5", 4", 6"
- **A -** Bendable Copper Averaging 12', 24'
- **S -** Strap On
- **O -** Outdoor Air
- **RP -**Remote Probe w/6'Leads
- **SP -** Stainless Plate
- **BP -** Bullet Probe
- **W -** Raw

-[ ] Communication Jack[1]
- **RJ4** (4 Pin RJ11)
- **RJ6** (6 Pin RJ12)
- **RS232** (Stereo Jack)

-[ ] Pot Value[1]
- **400**
- **1K**
- **2K**
- **3K**
- **5K**
- **8.5K**
- **10K**
- **20K**
- **100K**

-[ ] Setpoint Indicator[1]
- **Cool | Warm**
- **55 to 85**
- **10 to 30° C**

-[ ] Pot Action[1]
- **DA** (Direct)
- **RA** (Reverse)

-[ ] Display[1]
- **( )** No Display (Standard)
- **(DF)** LCD Display (Degrees F)
- **(DC)** LCD Display (Degrees C)

-[ ] Housing Type[2]
- **( )** Plastic Housing (Standard)
- **(GD)** Galvanized
- **(BB)** NEMA 3R
- **(4X)** NEMA 4X

[1]These Options are only available on ACI's Room Configurations.

[2]Duct, Immersion, Bendable Copper and Rigid Averaging available with optional NEMA 3R (BB), NEMA 4X (4X) enclosures or Galvanized Junction Box (GD).

Strap-On Sensors are available with an optional NEMA 4X (4X) or Galvanized Junction Box (GD)

2305 Pleasant View Rd. Middleton Industrial Park Middleton, WI 53562
PH: (608) 831-2585 FAX: (608) 831-7407

Product Data

A/34 Series

Temperature Sensor

Semiconductor

Product Description

The A/34 Series semiconductor type temperature sensors provide accurate temperature measurement that is linear and proportional to Degrees Fahrenheit.

The A/34 sensor provides a -400 to 2300 mV output throughout the temperature range of -40 to 230ºF.

These units are offered in Room, Room with Set Point, Room with Override, Room with Setpoint and Override, and Room w/ Setpoint, Override, and RJ11 Jack, Stainless Steel Duct and Duct without Box, Immersion, Stainless Plate, Raw, Strap-On, Bullet Probe, Button Sensor, and Outdoor Air Configurations.

All ACI Room sensors may be ordered with an optional setpoint (see chart on the following page), override, or with a 4 pin RJ11 or 6 pin RJ12 communication jack with terminal blocks, for remote programming. These units are also available with a 1/8" RS232 Stereo Jack.

Attributes
- **System Specific Sensor**
- **mV output equal to ºF**

Applications
- **OEM / Industrial**
- **Light Industrial**
- **DDC Systems**

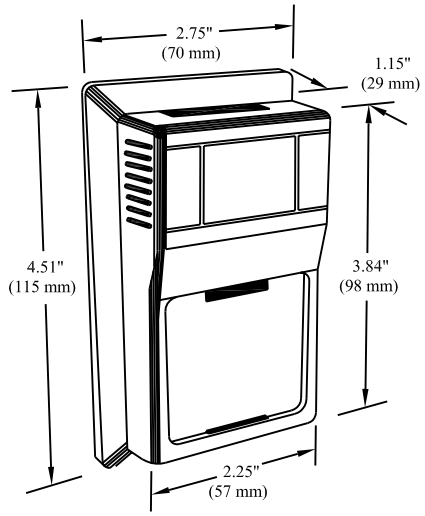
Product Specifications

Supply Voltage	+5 to 30 VDC
Output	-3 wire, -400 to 2300 mV
Accuracy	+/- 1.0ºF @ 77ºF (+/- 0.55ºC @ 25ºC)
Temperature Range	-40 to 230ºF (-40 to 110ºC)
Temperature Coefficient	10 mV/ºF or 18 mV/ºC
For sensors with Display option, see the **LCD Series** cut sheet	

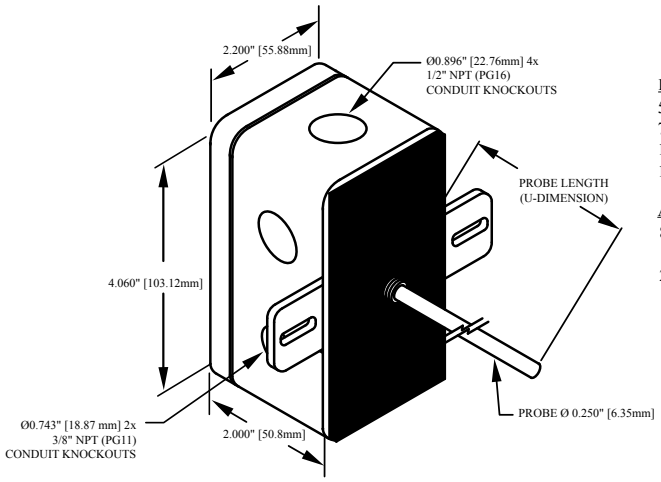
Wiring Diagrams available at www.workaci.com/instructions.htm
C0000119 Rev 1.pdf

Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Room



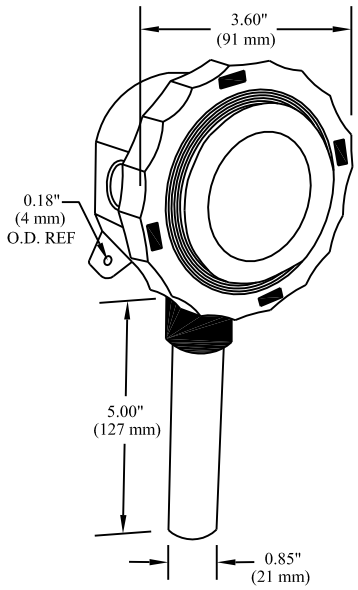
Duct / Averaging



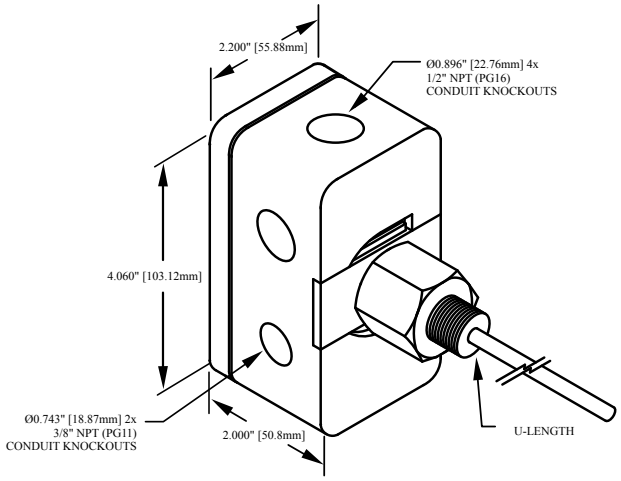
Duct Insertion (U-Dimension)
5.5" (89 mm)
7.5" (191 mm)
11.5" (292 mm)
17.5" (445 mm)

Averaging
8' (2.4 m)
12' (3.7 m)
24' (7.3 m)

Outside Air



Immersion



Well Insertion (U-Length)
2.50" (64 mm)
4.00" (102 mm)
6.25" (158.75 mm)

Ordering Information

Sensor	Configuration	Communication Jack[1]	Pot Value[1]	Setpoint Indicator[1]	Pot Action[1]	Housing Type[2]
A/ [ ]	-[ ]	-[ ]	-[ ]	-[ ]	-[ ]	-[ ]
34	**R** - Room **RS** - Room w/ Setpoint **RO** - Room w/ Override **RSO** - Room w/ Setpoint & Override **D** - Duct 4", 8", 12", 18" **DO** -Duct without box 4", 8", 12", 18" **I** - Immersion 2.5", 4", 6" **S** - Strap On **O** - Outdoor Air **RP** -Remote Probe w/6'Leads **SP** - Stainless Plate **BP** - Bullet Probe **W** - Raw	**RJ4** (4 Pin RJ11) **RJ6** (6 Pin RJ12) **RS232** (Stereo Jack)	**400** **1K** **2K** **3K** **5K** **8.5K** **10K** **20K** **100K**	**Cool | Warm** **55 to 85** **10 to 30° C**	**DA** (Direct) **RA** (Reverse)	( ) Plastic Housing (Standard) **(GD)** Galvanized **(BB)** NEMA 3R **(4X)** NEMA 4X

[1]These Options are only available on ACI's Room Configurations.

[2]Duct, Immersion, Bendable Copper and Rigid Averaging available with optional NEMA 3R (BB), NEMA 4X (4X) enclosures or Galvanized Junction Box (GD).

Strap-On Sensors are available with an optional NEMA 4X (4X) or Galvanized Junction Box (GD)

2305 Pleasant View Rd. Middleton Industrial Park Middleton, WI 53562
PH: (608) 831-2585 FAX: (608) 831-7407

Product Data

A/TT100 Series
A/TT1K Series
A/TTM100 Series
A/TTM1K Series

Temperature Transmitters

Transmitter

Attributes:
- Not polarity sensitive
- Class A RTD
- Double Potting Process avoids moisture issues
- Custom calibration ranges are available

Applications:
- Data acquisition
- OEM
- Process Control
- Clean Rooms

Product Description

ACI temperature transmitters are a cost effective solution for all of your temperature measurement needs. The transmitters are accurate, durable, and reliable. Numerous mounting configurations are offered.

ACI produces two temperature transmitters, the A/TT100 for use with a 100 Ohm Platinum RTD and the A/TT1K for use with a 1K Ohm Platinum RTD. The transmitters produce a linear 4-20 mA output carried on a two-wire system. Optional output voltage ranges of (+1-5 or +2-10 VDC) can also be ordered. The transmitter is supplied factory calibrated, and supplied with zero and span potentiometers for field calibration. The transmitter is linear from -50 to 392°F.

The A/TTM Series transmitters are calibrated using a high accuracy NIST traceble digital thermometer and temperature chamber at three points standard. Additional options include current limiting and AC power. All temperature transmitters have a two year product warranty.

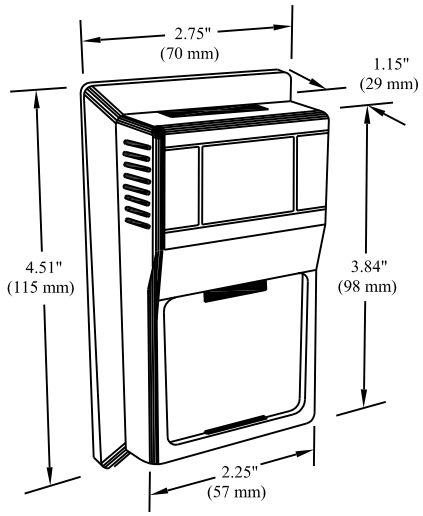
Product Specifications

Transmitter Supply Voltage	8 to 35 VDC, No Polarity Sensitivity 249 Ohm Load: +12 to 35VDC 499 Ohm Load: +17 to 35VDC
Temp. Transmitter Input	2-wire Platinum 100/1K Ohm Class A RTD
Temp. Transmitter Output	2-wire, Linear 4 to 20mA DC Current (Std.) 1 to 5 VDC or 2 to 10VDC
Temp. Transmitter Accuracy **NIST Accuracy**	+/- 1% of Calibrated span (Standard) Specified by customer down to +/-0.5°F
Temp. Sensor Operating Range **Single Point** **Averaging**	 -58 to 392°F (-50 to 200°C) -50 to 275°F (-45.5 to 135°C)
Transmitter Operating Temp. Range	32 to 158°F (0 to 70°C)

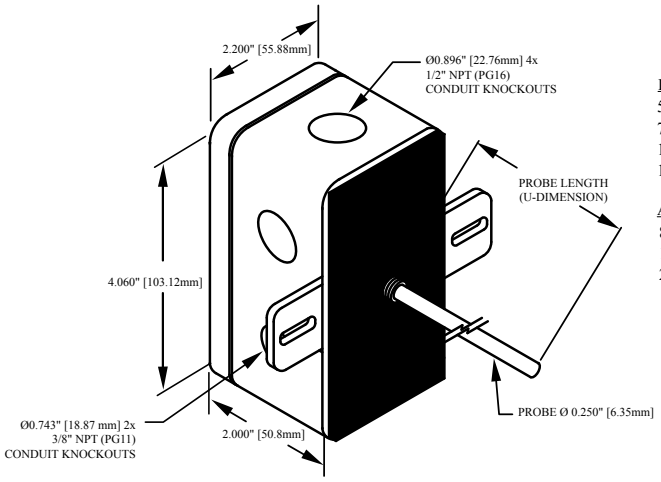
Wiring Diagrams available at www.workaci.com/instructions.htm
C0000104 Rev 2.pdf

Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Room



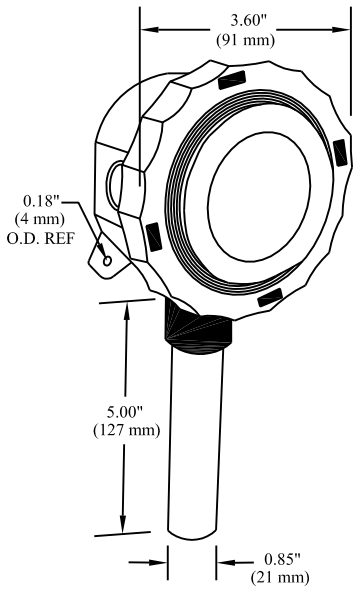
Duct / Averaging



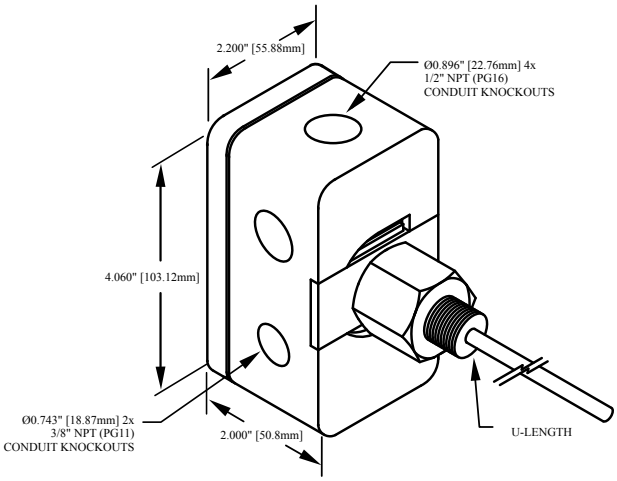
Duct Insertion (U-Dimension)
5.5" (89 mm)
7.5" (191 mm)
11.5" (292 mm)
17.5" (445 mm)

Averaging
8' (2.4 m)
12' (3.7 m)
24' (7.3 m)

Outside Air



Immersion



Well Insertion (U-Length)

2.50" (64 mm)
4.00" (102 mm)
6.25" (158.75 mm)

Ordering Information

A/ [ ] [ ] [ ] [ ] [ ] -[ ]

Sensor Type

TT100 (100 Ohm RTD)
TT1K (1000 Ohm RTD)

TTM100 (100 Ohm RTD)
TTM1K (1000 Ohm RTD)

Matched Calibration with 3 point NIST certificate

For added accuracy 5 point calibration is also available
A/5PT NIST (5 Point NIST Calibration certificate)

Span

(1) 40 to 90°
(2) 30 to 100°
(3) 20 to 120°
(4) 40 to 140°
(5) 40 to 240°
(6) -30 to 130°
(7) 0 to 150°
(8) Specify

Configuration

R - Room
RS - Room w/Setpoint
RO - Room w/Override
RSO - Room w/Setpoint & Override
D - Duct 4", 8", 12", 18"
I - Immersion 2.5", 4", 6"
A - Averaging 12', 24'
RA - Rigid Averaging 18", 24", 36"
S - Strap - On
O - Outdoor Air
RP - Remote Probe 6' Lead wires
SP - Stainless Plate

Output

(1) 1 to 5 VDC
(2) 2 to 10 VDC
(4) 4 to 20 mA

LCD Display

( ) No Display (Standard)
(DF) LCD Display (Degrees F)
(DC) LCD Display (Degrees C)

Housing Type[2]

( ) Plastic Housing (Standard)
(GD) Galvanized
(BB) NEMA 3R
(4X) NEMA 4X

[2]Duct, Immersion, Bendable Copper and Rigid Averaging available with optional NEMA 3R (BB), NEMA 4X (4X) enclosures or Galvanized Junction Box (GD).

Strap-On Sensors are available with an optional NEMA 4X (4X) or Galvanized Junction Box (GD)

2305 Pleasant View Rd. Middleton Industrial Park Middleton, WI 53562
PH: (608) 831-2585 FAX: (608) 831-7407

"First in Sensor Quality"

Product Data

High and Low Temperature Sensors and Transmitters

Product Description

ACI has a full line of high and low temperature sensors that are available as stand alone sensors or sensor/transmitter combinations. The transmitters come standard with 100 or 1,000 Ohm platinum RTD's and provide a linear 4 to 20 mA output signal.

ACI High Temperature 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. The sensors are mounted in a 1/4" diameter stainless steel probe with Nickel Plated Fiberglass lead wires.

ACI Low Temperature sensors use a strain-free element. This allows the sensor to have a more stable output, since the sensing element is not subjected to the constant expansion and contraction of the encapsulation materials. The sensors are mounted in a 1/4" diameter stainless steel probe with Teflon lead wires.

Both the ACI High and Low Temperature sensors are available in duct, immersion and remote probe mounting configurations. All of the units come with a two year factory warranty.

Product Specifications

Supply Voltage	8 to 35 VDC, No Polarity Sensitivity 249 Ohm Load: +12 to 35VDC 499 Ohm Load: +17 to 35VDC
Sensor Output	3-wire Platinum 100/1000 Ohm RTD
Sensor Accuracy	+/- 0.012% @ 32°F (0°C)
Sensor Temperature Coefficient	0.00385 Ohms/ Ohms /°C
Transmitter Output	2-wire, Linear 4 to 20 mA DC Current
Transmitter Accuracy	+/- 1.0% of span
Sensor Operating Range	Low Temp: -328 to 392°F (-200 to 200°C) High Temp: -40 to 743°F (-40 to 395°C)
Transmitter Operating Range	32 to 158°F (0 to 70°C)

Wiring Diagrams available at www.workaci.com/instructions.htm
C0000104 Rev 2.pdf

High and Low Temp

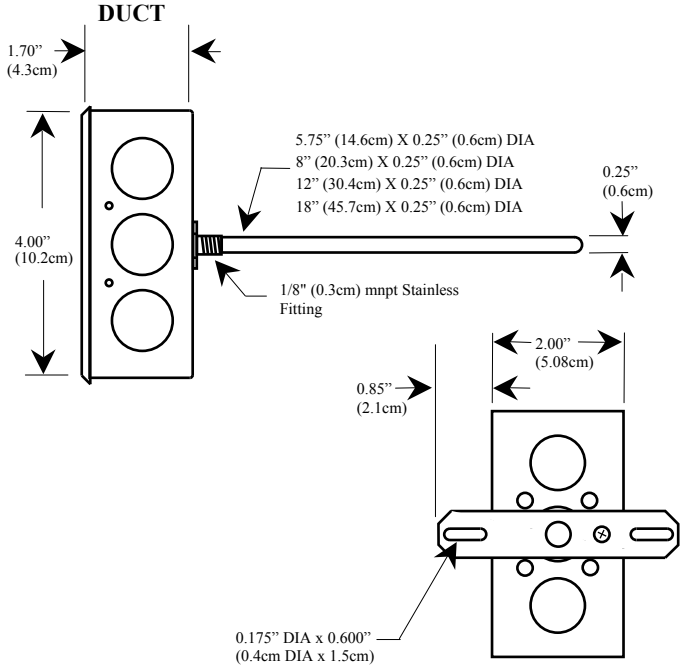
Attributes:
- **100/1000 Ohm RTD**
- **Stable outputs in extreme Temperature Environments**
- **3-Wire Sensors w/ 8 foot Nickel Fiberglass or Teflon lead wires.**

Applications:
- **High Temp: Stacks, Boilers, Commercial Ovens**
- **Low Temp: Freezers, Meat Packing Plants, Laboratories**

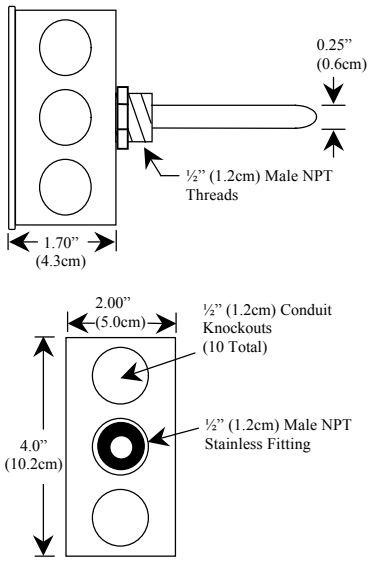
Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Dimensions

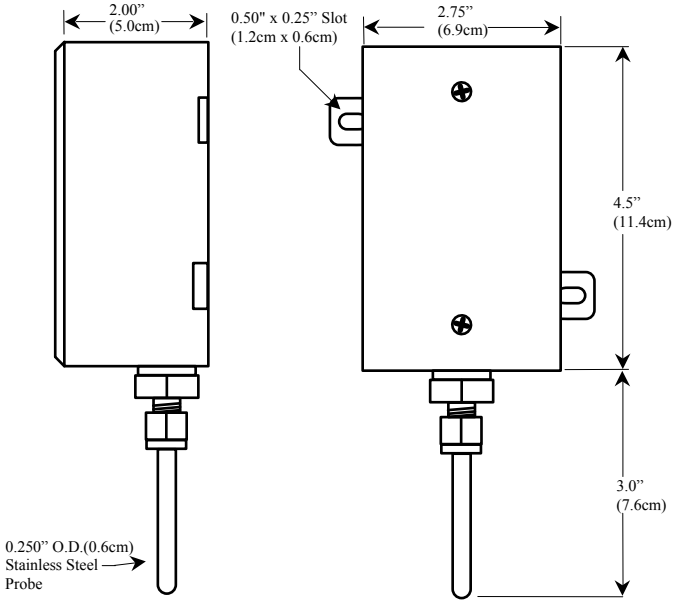
DUCT



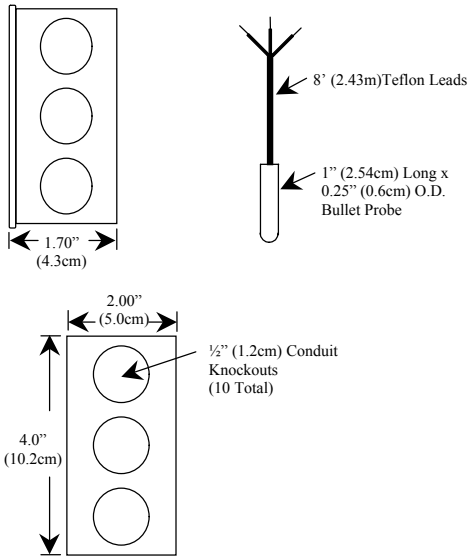
IMMERSION



OUTDOOR AIR



REMOTE PROBE



Ordering Information

	Sensor	Span*	Configuration	Output*
A/	[ ]	[ ]	-[ ]	[ ]

Sensor
- **100-LT**
- **1K-LT**
- **100-HT**
- **1K-HT**
- **TT100-LT***
- **TT1K-LT***
- **TT100-HT***
- **TT1K-HT***

Span* — ( ) Specify

Configuration
- **D -** Duct 4", 8", 12", 18"
- **DO -** Duct without Box 4",8",12",18"
- **I -** Immersion 2.5", 4", 6"
- **RP -** Remote Probe (8' leads)
- **O -** Outside Air - Only Available for Low Temperature Sensors.

Output*
- **(1)** 1 to 5 VDC
- **(2)** 2 to 10 VDC
- **(4)** 4 to 20 mA

***Specify Span and Choose Output Options on Temperature Transmitters**

2305 Pleasant View Rd. Middleton Industrial Park Middleton, WI 53562
PH: (608) 831-2585 FAX: (608) 831-7407

Product Data

A/RH Series
Relative Humidity Transmitters

Product Description

The A/RH Series Relative Humidity transmitters, convert a resistance change to a linear 4 to 20 mA, 0 to 5 VDC, or 0 to 10 VDC output. The current signal may be transmitted over long distances on twisted-pair wire and will not be affected by the lead wire resistance or electrical noise.

The Advanced Ceramic Technology design overcomes the limitations of other resistance-based humidity sensors that utilize water-soluble polymer coatings. The Advanced Ceramic Technology enables these sensors to recover fully from condensation. This also allows the sensor to maintain its accuracy over a longer period of time. Despite its high accuracy, the Advanced Ceramic Technology sensor and related circuitry is economical.

Accuracy is maintained over the entire operating range, using a thermistor for temperature compensation.

Each A/RH Series humidity transmitter is calibrated using a NIST Traceable Temperature /Humidity Chamber. Both three and five point calibration certificates are avalable for 1% and 2% RH accuracies but they must be ordered separately.

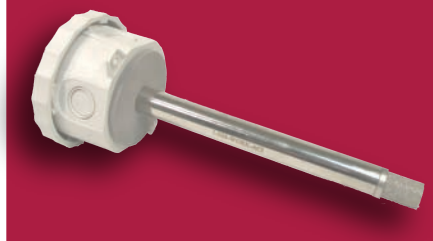
All A/RH Series transmitters have a limited 2 year warranty.

Product Specifications

Supply Voltage	250 Ohm Load: +15 to 36 VDC / 21.6-26.4 VAC 0-5VDC: +15-36 VDC / 21.6-26.4 VAC 500 Ohm Load: +18 to 36 VDC / 21.6-26.4 VAC 0-10VDC: +18-36 VDC / 21.6-26.4 VAC
Power Consumption	1 VA max.
RH Measurement Range	0 to 100%
RH Output	2-wire, 4 to 20mA (Factory Standard) 3-wire, 0-5, 0-10 VDC or 4 to 20mA
Accuracy @ 77°F	+/- 1% over 20% span (between 20 to 90%) +/- 2%, 3%, or 5% from 20 to 95%
Long Term Stability	Less than 2% drift / 5 years
Hysteresis	Less than 0.4% RH
Repeatablity	0.5% RH
Sensitivity	0.1 % RH
Response Time	110 seconds for 63% Step
Operating Temperature Range	-10 to 122°F (-23.3 to 50°C)
Operating Humidity Range	0 to 95 % RH non-condensing
Saturation Response Time	10 minutes for 63% Step

Wiring Diagrams available at www.workaci.com/instructions.htm
C0000105 rev 3.pdf

Relative Humidity



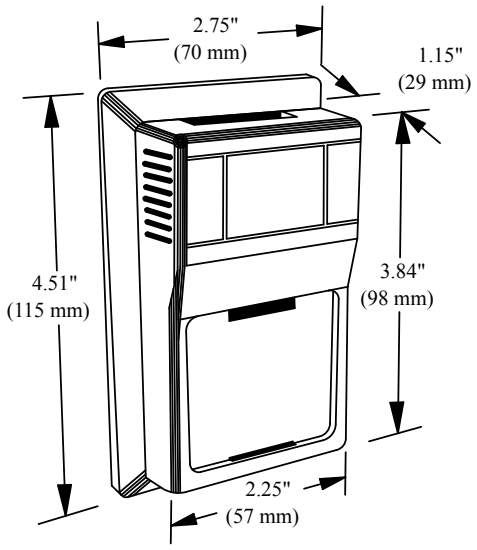
Attributes:
- Single point Field Calibration
- Field selectable output signals
- 1%, 2%, 3%, and 5% Accuracies
- Low Drift
- Highly Repeatable
- Calibration Certificates Available

Applications:
- Building Automation Systems
- Light Industrial
- Pharmaceutical
- Humidity Chambers
- Data acquisition
- OEM

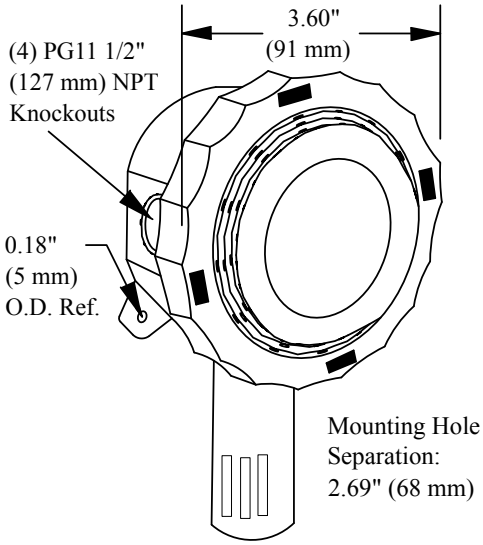
Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Dimensions

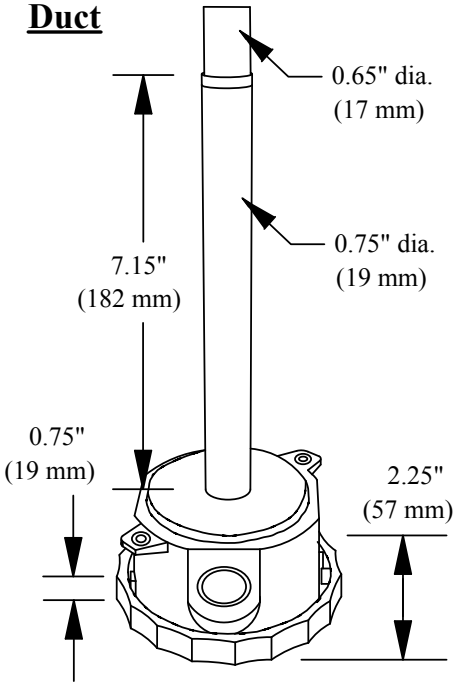
Room



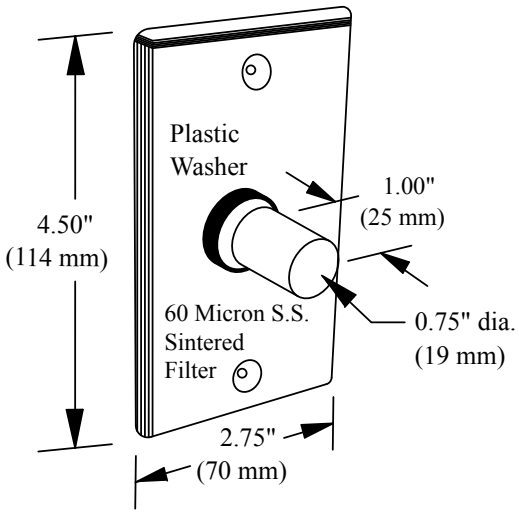
Outside



Duct



Stainless Plate



Ordering Information

	Accuracy	Range if 1%	Configuration
A/	[ ]	-[ ]	-[ ]
	RH1 (+/- 1%)	**Please Specify**	**(R)** Room
	RH2 (+/- 2%)	**a 20% Span**	**(D)** Duct
	RH3 (+/- 3%)	**(i.e. 40-60%)**	**(O)** Outdoor Air
	RH5 (+/- 5%)		**(SP)** Stainless Plate

3 PT NIST Certificate (3 point Calibration Certificate @ 20, 50 and 80% RH)
5 PT NIST Certificate (5 point Calibration Certificate w/standard points choosen by ACI)

Example: A/RH3-R or A/RH5-D or A/RH2-O or A/RH1-(40 to 60%)-SP

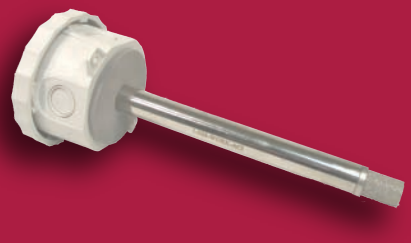
2305 Pleasant View Rd. Middleton Industrial Park Middleton, WI 53562
PH: (608) 831-2585 FAX: (608) 831-7407

Product Data

A/RH-TEMP Series

Relative Humidity/ Temperature Combinations

RH-TEMP



Product Description

The A/RH-TEMP Series Relative Humidity transmitters, convert a resistance to a linear 4 to 20 mA, 0 to 5 VDC, or 0 to 10 VDC output. The current signal may be transmitted over long distances on unshielded twisted-pair wire and will not be affected by the lead wire resistance or electrical noise.

The Advanced Ceramic Technology design overcomes the limitations of other resistance-based humidity sensors that utilize water soluble polymer coatings. The Advanced Ceramic Technology enables these sensors to recover fully from condensation. This allows the sensor to maintain its accuracy over a longer period of time. Despite its accuracy, the Advanced Ceramic Technology sensor and related circuitry is economical.

Accuracy is maintained over the entire operating range, using a thermistor for temperature compensation.

Each A/RH-TEMP Series humidity transmitter is calibrated using an NIST Traceable Temperature and Humidity Chamber.

Any ACI thermistor, RTD, or temperature transmitter may be ordered with the A/RH transmitter. All A/RH-TT Room combination units will have a board mounted on the back of the enclosure. All A/RH-Temp Series transmitters have a limited 2 year warranty.

Attributes:

- Low Drift
- Highly Repeatable
- Temperature Sensor Ouput
- Field Selectable Output Signals
- Single Point Field Calibration using DIP Switches
- Lowers Inventory Cost

Applications:

- Light Industrial
- Pharmaceutical
- Humidity Chambers
- Pool Environments
- Process Control

Product Specifications

Supply Voltage	250 Ohm Load: +15 to 36 VDC / 24 VAC 500 Ohm Load: +18 to 36 VDC / 24 VAC
Power Conumption	1 VA max.
RH Measurment Range	0 to 100% RH
RH Output Signal **Temperature Sensor Output** **Temperature Transmitter Output**	2-wire, 4-20mA, 3-wire 0-5 or 0-10 VDC 2-Wire Resistive, or 2-wire uA Output 2-wire, 4 to 20mA, or 3-wire, 1-5, 2-10 VDC
Accuracy @ 77°F (25°C)	+/- 1% over 20% Span between 20-95% RH +/- 2, 3, or 5% from 20 to 95% RH
Repeatability	0.5% RH
Hysteresis	Less than 0.4% RH
Long Term Stability	Less than 2% RH Drift / 5 Years
Response Time	110 seconds for 63% Step
Saturated Response Time	10 minutes for 63% Step
Operating Temp. Range	-10 to 122°F (-23.3 to 50°C)
Operating RH Range	0 to 100% RH

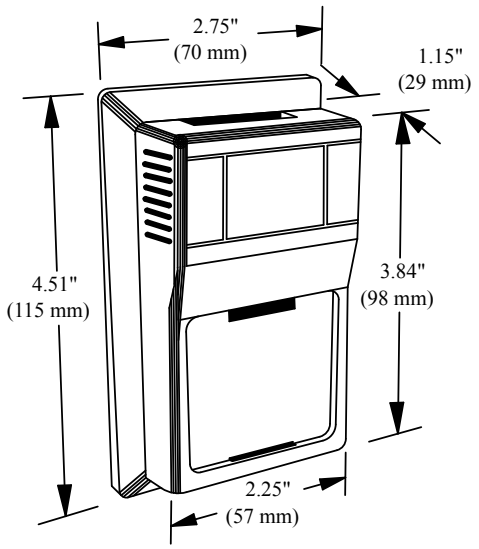
Wiring Diagrams available at www.workaci.com/instructions.htm

C0000106 Rev 2.pdf

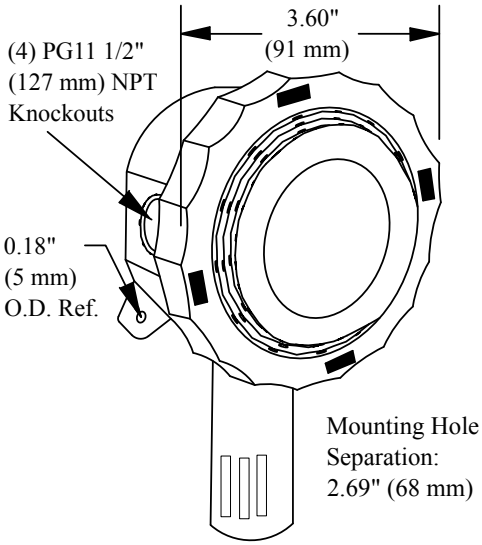
Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Dimensions

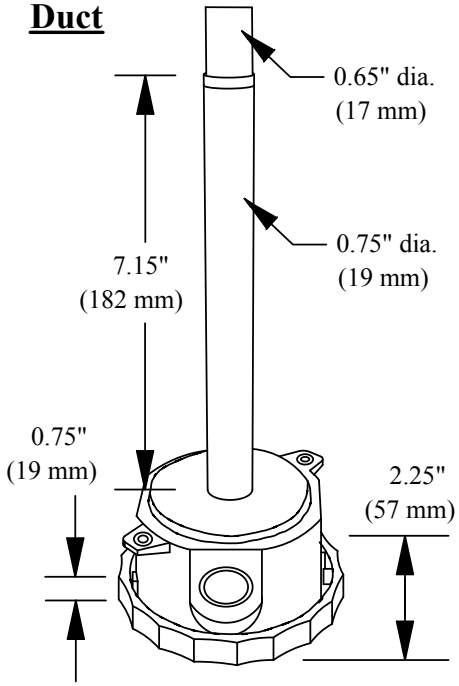
Room



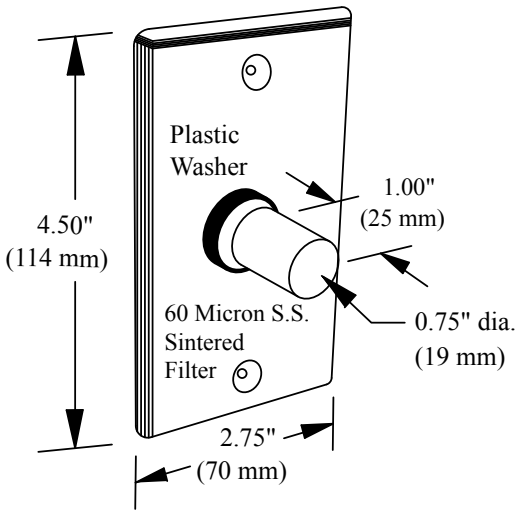
Outside



Duct



Stainless Plate



Ordering Information

Accuracy
A/ [ ]

RH1 (+/- 1%)*
RH2 (+/- 2%)
RH3 (+/- 3%)
RH5 (+/- 5%)

Temp Sensor
[ ]

100 1K 1.8K
2.2K ASI 3K
AN(Type III)
CP(Type II)
CSI 20K 100K
1K Nickel
TT1K TT100****

Configuration
[ ]

(R) Room
(RO) Room w/Override
(RS) Room w/Set Point*
(RSO) Room w/Set Point &Override*
(D) Duct
(O) Outdoor Air
(SP) Stainless Plate

Temp Transmitter Output (if needed)
[ ]

(4) 4 to 20mA Output
(1) 1-5 VDC Output
(2) 2-10VDC Output

* See Temperature Cut sheet for additional information on setpoint specs

***Specify a 20 % RH Range when ordering an A/RH1%**
****Specify a Temperature span for TT100 and TT1K Units**

2305 Pleasant View Rd. Middleton Industrial Park Middleton, WI 53562
PH: (608) 831-2585 FAX: (608) 831-7407

Product Data

A/ENT-CTRL
Enthalpy Controller

A/ENT-DIFF
Differential Enthalpy

Product Description

The A/ENT-CTRL and A/ENT-DIFF are low cost Enthalpy controllers that measure both temperature and humidity and converts them into a sourced relay output. The supply voltage to the A/ENT-CTRL/DIFF is common to the N/O or N/C contacts of the 10A Form 1C Relay. The relay is controlled or switched by selecting the proper mode switch within the unit.

The Advanced Ceramic Technology overcomes the limitations of other resistance-based humidity sensors that utilize water-soluble polymer coatings. This technology enables these sensors to fully recover from condensation and enables the sensor to maintain its accuracy over time. Despite its accuracy, the Advanced Ceramic Technology sensor and related circuitry is economical.

All of the A/ENT-CTRL and A/ENT-DIFF are calibrated using a NIST Traceable temperature and humidity controlled environmental chamber. Factory selectable calibration can be achieved for elevations of 0, 1000, 2000, 3000, 4000, 6000, 8000, and 10000 feet. Use reverse action in the A/ENT-CTRL/DIFF unit to change the NO/NC switch action.

All of the A/ENT series units come with a 2 year factory warranty.

Product Specifications

Supply Voltage	+24 to 36 VDC or 24 VAC +/- 10%
Supply Current	0.85 VA minimum
Output	10A Form 1C Relay w/ Sourced Supply Voltage
External Input (A/ENT-DIFF only)	4-20mA (0 to 50 BTU's) from A/ENT-TRAN
Enthalpy Accuracy	+/- 1 BTU @ 77°F (25°C)
Long Term Stability	Less than 2% RH Drift / 5 Years
Sensitivity	0.1% RH
Repeatability	0.5% RH
Hysteresis	Less than 0.4% RH
Operating RH Range	0 to 95% RH (non-condensing)
Operating Temperature Range	-40°F to 140°F (-40°C to 60°C)
Standard Elevation	1000' above sea level (standard)
Environmental Compliance	RoHS Compliant

Wiring Diagrams available at www.workaci.com/instructions.htm
C0000152 Rev 2.pdf

Enthalpy

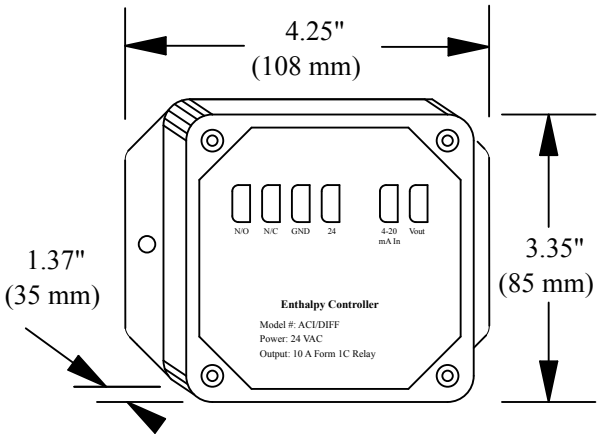
Attributes:
- 1/4" Spade Connectors
- Conformally Coated PCB
- High Accuracy
- RoHS Compliant
- Ashrae 90.1 Compliant (A/ENT-CTRL only)
- Switched Relay Output
- Selectable Control Curves

Applications:
- Economizer Control
- OEMS

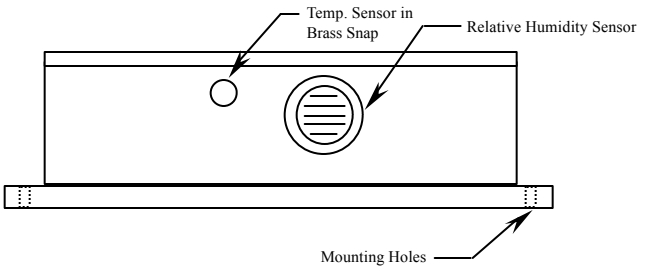
Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Dimensions

Enthalpy Controller



End View



Elevation Effect Chart

Feet Above Sea Level	BTU Output	Change(BTU's)
0	29.3027	- 0.4044
250	29.4069	- 0.3002
500	29.5052	- 0.2019
750	29.6052	- 0.1019
1,000	29.7071	0.0000
1,500	29.9248	+ 0.2177
2,000	30.134	+ 0.4269
2,500	30.351	+ 0.6439
3,000	30.5762	+ 0.8691
4,000	31.0533	+ 1.3462
5,000	31.5268	+ 1.8197
6,000	32.0373	+ 2.3302
10,000	34.4084	+ 4.7013

Ordering Information

A/ENT-CTRL
or
A/ENT-DIFF

Elevation **[ ]**

( ) 1,000' Elevation **(Standard)**
(A) 0' Elevation
(B) 2,000' Elevation
(C) 3,000' Elevation
(D) 4,000' Elevation
(E) 6,000' Elevation
(F) 8,000' Elevation
(G) 10,000' Elevation

Curve **[ ]**

( ) No Curve (For A/ENT-DIFF only)
(A) 28 BTU/lb and 75ºF (Standard)
(B) 24 BTU/lb and 70ºF
(C) 23 BTU/lb and 67ºF
(D) 21.5 BTU/lb and 63ºF

Output Action **[ ]**

( ) Direct Action
(R) Reverse Action

CTRL: Mode #1 has been designed to switch at a fixed set point (standard; Curve A) 28 BTU/lb or 75ºF., or is field selectable, by 2 switches under the cover, selecting curves A, B, C or D.

DIFF: Mode #2 has been designed to measure (typically) the Outdoor Enthalpy and, when used in conjunction with the A/ENT-TRAN, determine if the local Enthalpy is greater than the remote (normal condition), and switch if the local is less.

2305 Pleasant View Rd. Middleton Industrial Park Middleton, WI 53562
PH: (608) 831-2585 FAX: (608) 831-7407

Product Data

A/ENT-TRAN

4-20mA Enthalpy Transmitter

Enthalpy

Product Description

The A/ENT-TRAN is a low cost Enthalpy transmitter that converts a resistive type humidity sensor into a linear 2-wire, 4 to 20 mA output signal proportional to a scale of 0 to 50 BTU's. The Advanced Ceramic Technology overcomes the limitations of other resistance-based humidity sensors that utilize water-soluble polymer coatings. This technology enables these sensors to fully recover from condensation and enables the sensor to maintain its accuracy over time. Despite its accuracy, the Advanced Ceramic Technology sensor and related circuitry is economical.

Each A/ENT-TRAN is calibrated at 3 different points, using an NIST Traceable temperature and humidity controlled environmental chamber. Factory selectable calibration can be achieved for elevations of 0, 1000, 2000, 3000, 4000, 6000, 8000, and 10000 feet. Reverse Action makes the slope negative, from 20 down to 4 mA. All of the A/ENT-TRAN Enthalpy Transmitters come with a 2 year factory warranty.

Attributes:

- 1/4" Spade Connectors
- Conformally Coated PCB
- High Accuracy
- Excellent Repeatability
- RoHs Compliant

Applications:

- Economizer Control
- OEM's

Product Specifications

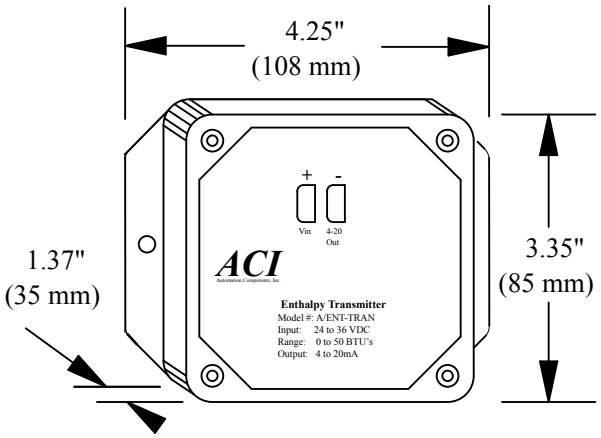
Supply Voltage	+24 to 36 VDC
Supply Current	0.85 VA minimum
Enthalpy Measurement Range	0-50 BTU's
Output Signal	2-wire, 4-20mA (0 to 50 BTU's)
Accuracy	+/- 1 BTU @ 77°F (25°C)
Long Term Stability	Less than 2% RH Drift / 5 Years
Repeatability	0.5% RH
Hysteresis	Less than 0.4% RH
Sensitivity	0.1% RH
Standard Elevation	1000' above sea level (standard)
Operating Temperature Range	-40°F to 140°F (-40°C to 60°C)
Operating RH Range	0 to 100% RH (condensing)
Enclosure Flammability Rating	UL94-5VA
Enviroamental Compliance	RoHS Compliant

Wiring Diagrams available at www.workaci.com/instructions.htm
C0000107 Rev 7.pdf

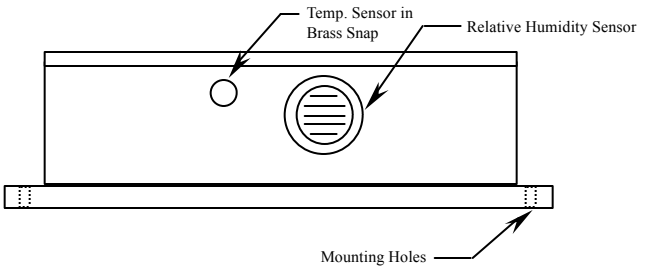
Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Dimensions

Enthalpy Controller



End View



Elevation Effect Chart

Feet Above Sea Level	BTU Output	Change(BTU's)
0	29.3027	- 0.4044
250	29.4069	- 0.3002
500	29.5052	- 0.2019
750	29.6052	- 0.1019
1,000	29.7071	0.0000
1,500	29.9248	+ 0.2177
2,000	30.134	+ 0.4269
2,500	30.351	+ 0.6439
3,000	30.5762	+ 0.8691
4,000	31.0533	+ 1.3462
5,000	31.5268	+ 1.8197
6,000	32.0373	+ 2.3302
10,000	34.4084	+ 4.7013

Ordering Information

A/ENT-TRAN

Elevation

[ ]

( ) 1,000' Elevation (Standard)
(A) 0' Elevation
(B) 2,000' Elevation
(C) 3,000' Elevation
(D) 4,000' Elevation
(E) 6,000' Elevation
(F) 8,000' Elevation
(G) 10,000' Elevation

Output Slope

[ ]

( ) Direct Acting / Positive Slope **(Standard)**
(R) Reverse Acting / Negative Slope

2305 Pleasant View Rd. Middleton Industrial Park Middleton, WI 53562
PH: (608) 831-2585 FAX: (608) 831-7407

Product Data

A/LP Series

Low Differential Pressure Transmitter

Air Pressure

Product Description

The A/LP Series transmitters are a low cost alternative to the A/DP series pressure transmitters. The A/LP Series is a 4-20 mA transmitter with uni-directional spans.

These pressure transmitters incorporate a durable piezoresistive, silicon micro-machined sensing element to enable very low-pressure measurements. Integrated temperature compensation with offset and span calibration extends the performance of these devices to provide excellent long term reliability.

The transmitters must be powered by a +24 to 36 VDC or 24VAC supply. The electronics provide a two-wire, linear 4-20 mA current loop or an optional 3-wire voltage output. The uni-directional spans range from 0-1" to 0-10" of Water Column or 0-300 to 0-2500 Pascals. All units are calibrated with a 4-20 mA output as standard. If a voltage output as required, they must be ordered as such from the factory. The A/LP is now available with a Cord Grip and ½" NPT Knockout when ordering the "Euro" Enclosure option.

All A/LP Series Transmitters come with a limited 2-year warranty. Please contact ACI for more information regarding this product.

Attributes:

- Optional Internal or External Terminal blocks
- ½" NPT Knockout (When Cord Grip Removed)
- Euro Housing Option w/ Cord Grip
- UL 94-V0 Rated Enclosure
- RoH'S Compliant

Applications:

- Monitoring Building Static Pressure
- Leak Detection
- Monitoring Filter Blockage
- Measuring flow when used in conjunction with a Pitot Tube or Orifice Plate

Product Specifications

Supply Voltage	+24 to 36 VDC / 24 VAC (+/-10%)
Supply Current	23 mA minimum
Output	2-wire, Linear 4 to 20mA DC Current or 3-wire, 1-5 or 2-10 VDC
Sensor Accuracy*	+/-1.1% F.S.O.
Repeatablity	+/- 0.3% F.S.O. nominal
Operating Temperature Range	-13 to 185°F (-25 to 85°C)
Compensated Temperature Range	32 to 122°F (0 to 50°C)
Full Scale Shift (0°C to 50°C)	+/-2.0% F.S.O.
Media	Dry air or inert non-conductive gases
Environmental Compliance	RoHS-Directive 2002/95/EC WEEE-Directive 2002/96/EC

* Accuracy includes linearity, hysteresis and repeatability

Wiring Diagrams available at www.workaci.com/instructions.htm
C0000058 Rev 5.pdf

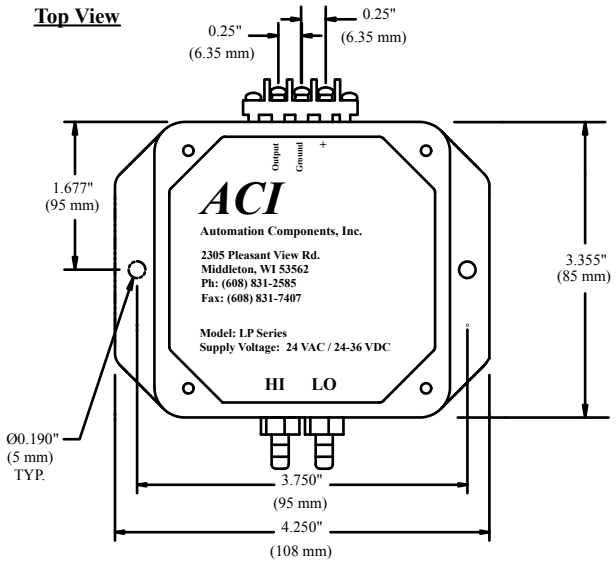
Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Dimensions

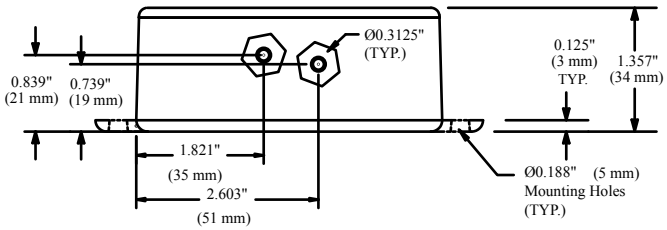
All Dimensions are in Inches

Terminals Exposed Version

Top View



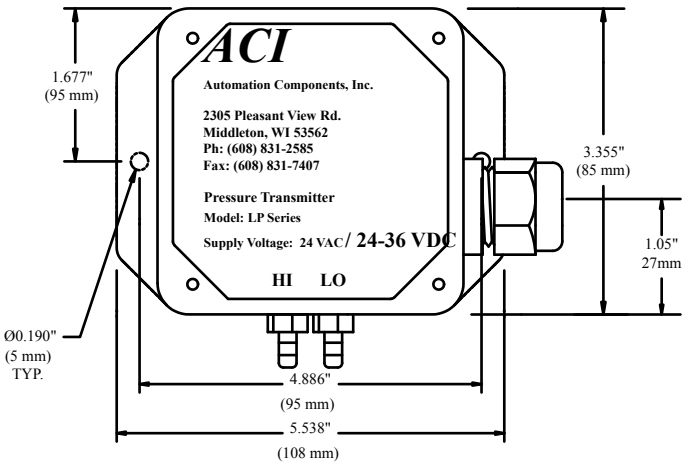
Front View



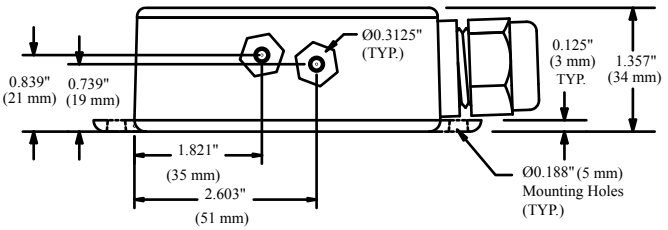
Terminals Enclosed Version

*Add (E) Euro to your ordering information

Top View



Front View



Ordering Information

	Span	Output	*Scale	(See Above) *Enclosure
A/LP	-[ ]	-[ ]	-[ ]	-[ ]
	(1) 0 to 1.0”	**(5)** 1 to 5 VDC	**( )** “ H_20 **(Standard)**	**(E)** Euro
	(2) 0 to 2.0”	**(10)** 2 to 10 VDC	**(P)** Pascals	
	(3) 0 to 3.0” or 0 to 300 pa	**(20)** 4 to 20 mA		
	(4) 0 to 4.0”			
	(5) 0 to 5.0” or 0 to 500 pa			
	(10) 0 to 10.0” or 0 to 1000 pa			
	(16) 0 to 1600 pa			
	(25) 0 to 2500 pa			
	(Please Specify)			

Example: A/LP-1-20 or A/LP-3-20-E or A/LP-16-5-P

2305 Pleasant View Rd. Middleton Industrial Park Middleton, WI 53562
PH: (608) 831-2585 FAX: (608) 831-7407

Product Data

A/DP Series

Low Differential Pressure Transmitter

Product Description

The A/DP series is a line of low differential pressure transmitters that are capable of sensing full scale ranges down to 0.25" of water column. Each ACI pressure transmitter utilizes a high quality ceramic capacitive sensor to provide long term stability and performance. Variable capacitance sensors have a good signal to noise ratio and are not plagued by temperature drift.

The transmitter electronics provide either a two-wire, linear 4 to 20 mA or a three-wire, 0 to 5 or 0 to 10 VDC output signal. Accuracy is +/- 1% of full scale over the compensated temperature range. The transmitter may be powered by a regulated, +15-36 VDC or 24 VAC supply, and is polarity sensitive. In addition to the requested span, each transmitter is capable of being field adjusted to a maximum of three additional spans by resetting the internal jumpers. A slight zero offset may be needed. This feature provides greater flexibility in the field. Commonly available spans are 0 to 0.25", -0.5 to 0.5", 0 to 1", 0 to 2.0", and 0 to 5".

When used in combination with an A/PT, A/SPT, or A/VPT style pitot tubes, flow can be measured and controlled in ducts. All A/DP low differential pressure transmitters come factory calibrated with a 2 year warranty.

Product Specifications

Supply Voltage	250 Ohm Load: +15-36 VDC / 24VAC 500 Ohm Load: +19-36 VDC / 24 VAC
Output Ranges	2-wire, Linear 4 to 20mA DC Current or 3-wire, 0-5, 0-10 VDC, or 4-20mA
Response Time	15 msec - 63% full scale step
Position effect	2% Null shift from vertical to horizontal
Transmitter Accuracy	+/-1 of span
Operating Temperature Range	-10 to 60°C (14 to 140°F)
Compensated Temperature Range	10 to 40°C (50 to 104°F)
Linearity	+/- 0.5% of span
Pressure Fittings	1/4" barbed fitting (Brass)
Pressure Overload	Span < 2" H_2O
Positive Pressure	5X
Negative Pressure	3X
	Span > 2" H_2O
Positive Pressure	5X
Negative Pressure	3X

Wiring Diagrams available at www.workaci.com/instructions.htm

C0000109 Rev 3.pdf

Air Pressure

Attributes:

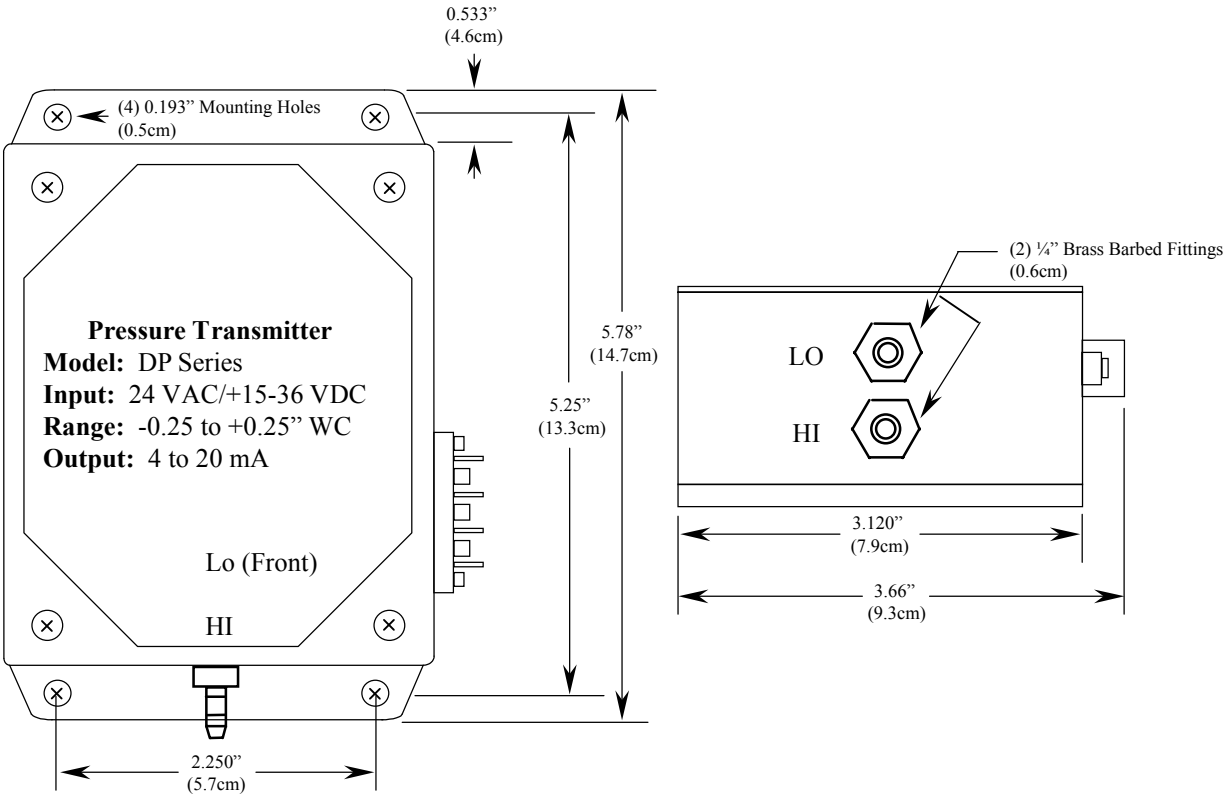
- Field Selectable Pressure Ranges
- Field Selectable Output Signals
- Accepts AC/DC Supply Voltages
- User Friendly / Lowers Inventory

Applications:

- Static Pressure Control in Rooms
- Leak Detection
- Monitoring Filter Blockage
- Pneumatic Control
- Variable Air Volume Systems (VAV's)

Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Dimensions



Ordering Information

	Model#	Factory Set SPAN	Output	
A	**/DP-**[ ]	-[ ]	-[ ]	
	(1)	+/- 1.0"	**(5)**	0 to 5 VDC
	(2)	+/- 0.5"	**(10)**	0 to 10 VDC
	(3)	+/- 0.25"	**(20)**	4 to 20 mA
	(4)	0 to 0.25"		
	(5)	0 to 0.5"		
	(6)	0 to 1.0"		
	(7)	0 to 2.0"		
	(8)	0 to 3.0"		
	(9)	0 to 5.0"		
	(10)	0 to 10.0"		
	(11)	+/- 5.0"		
	(12)	+/- 10.0"		

Table of Jumper Selectable Ranges for all DP Model# to the left

DP1	+/- 2.0"	N/A	N/A
DP2	+/- 0.3"	N/A	N/A
DP3	+/- 0.5"	N/A	N/A
DP4	0 to 0.5"	0 to 0.4"	0 to 0.3"
DP5	0 to 0.4"	0 to 0.3"	0 to 0.25"
DP6	0 to 0.8"	0 to 0.6"	0 to 0.5"
DP7	0 to 2.5"	0 to 1.5"	0 to 1.25"
DP8	0 to 5.0"	0 to 4.0"	0 to 2.5"
DP9	0 to 4.0"	0 to 3.0"	0 to 2.5"
DP10	0 to 8.0"	0 to 6.0"	0 to 5.0"
DP11	+/- 2.5"	N/A	N/A
DP12	+/- 5.0"	N/A	N/A

Example: A/DP-1-10 or A/DP-1-20 or A/DP-1-5

2305 Pleasant View Rd. Middleton Industrial Park Middleton, WI 53562
PH: (608) 831-2585 FAX: (608) 831-7407

Product Data

A/PT Series
A/SPT Series
A/VPT Series

Pitot Tubes

Product Description

The A/PT is designed to sense the differential inlet pressure in the inlet section of VAV and Fan Terminal Boxes. They can also be used to measure the differential pressure at any other location in the main or branch duct systems.

The "H" port senses the overall pressure and the "L" port senses the static pressure on the A/PT.

These sensors require a 7/8" diameter hole for insertion into the duct and should be mounted horizontally to assure the accuracy of the velocity readings. Two pilot holes should be used to attach the flange to the duct with either rivets or sheet metal screws.

The A/SPT and A/VPT are aluminum pitot tubes that may be used to measure the static or velocity pressure in ducts. The A/SPT has a 4" long insertion length and can be used to measure the static pressure in the duct. The A/VPT has a 4" insertion length and a pointed tube that can be used to measure the velocity pressure when mounted facing into the air stream.

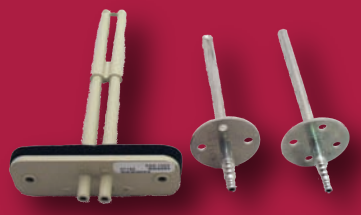
Please contact ACI for more information regarding any of these products.

Product Specifications

Connections	A/PT 1/4” Nipples for 3/8” OD. Tubing A/SPT, A/VPT 1/8” to 1/4” I.D. Tubing
Operating Temperature Range	40ºF to 120ºF (4ºC to 49ºC)
Sensing Lengths & Sensing Points	3 5/32” - One set 5 13/32” - Two sets 7 21/32” - Three sets 9 29/32” - Four sets
Mounting Material	Integral Flange with Gasket A/PT - ABS/Polycarbonate (UL94-5V) A/VPT - Aluminum A/SPT - Aluminum
Recommended Air Flow	A/PT = 200 fpm minimum

Wiring Diagrams available at www.workaci.com/instructions.htm
C0000047 Rev 1.pdf

Pitot Tubes



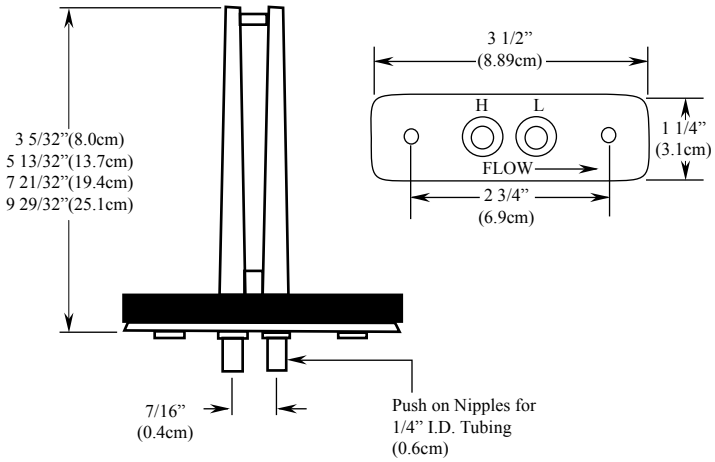
Applications:

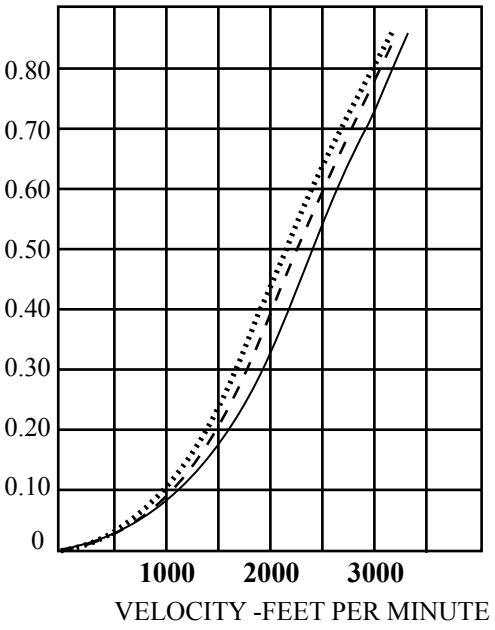
- **Used with Pressure Switches and Differential Pressure Transmitters**
- **Velocity Pressure**
- **Monitoring Building Static Pressures**
- **Monitoring Differential Pressures**

Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

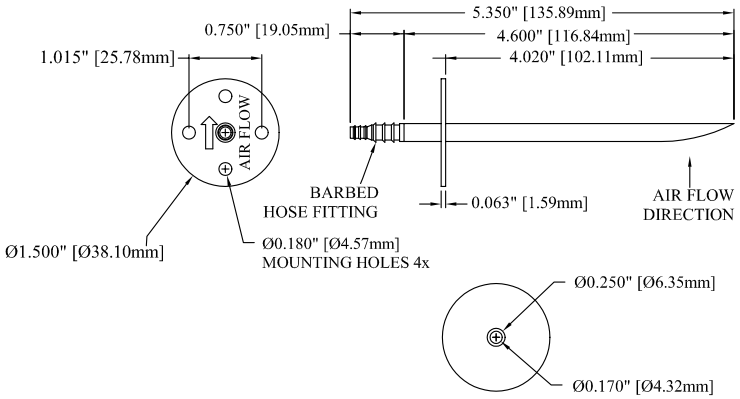
Dimensions

ACI/PT

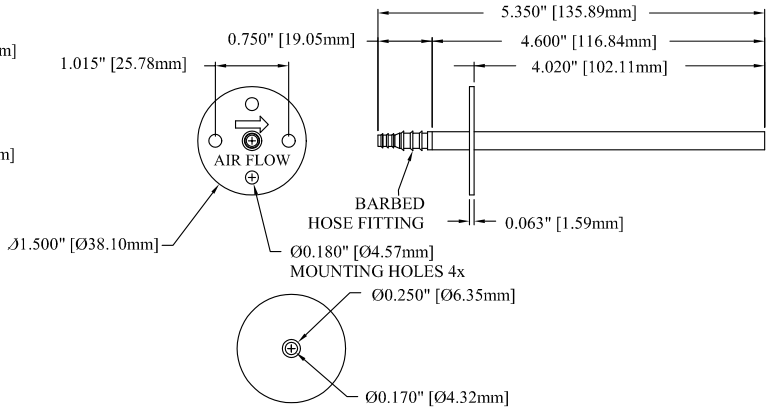




ACI/SPT



ACI/VPT



Ordering Information

Model#
[ ]

A/PT 3 5/32"
A/PT 5 13/32"
A/PT 7 21/32"
A/PT 9 29/32"
A/SPT (Static)
A/VPT (Velocity)

Example: A/PT or A/PT 9 29/32" or A/VPT

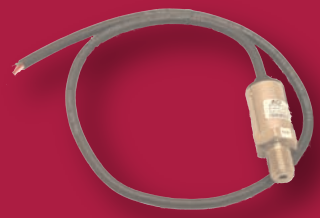
2305 Pleasant View Rd. Middleton Industrial Park Middleton, WI 53562
PH: (608) 831-2585 FAX: (608) 831-7407

Product Data

A/GP Series

Gage Pressure Transducer

Gage Pressure



Product Description

The A/GP is a two-wire, 4-20 mA gage pressure transducer. These units have been designed to provide excellent accuracy and reliability in commercial, industrial, and process control applications.

The A/GP pressure transducers are compatible with a wide range of gases and liquids. They are available in ranges from 0 to 15 PSIG up to 0 to 3000 PSIG. Other options and ranges may be available upon request and might have a minimum order quantity.

All units are accurate to +/- 0.5% or +/- 1% of full scale. The A/GP pressure transmitter offers a combined repeatability, hysteresis, and non-linear factor that is typically below +/- 0.15% of full scale. The A/GP pressure transducers are both EMC compliant and Reverse Polarity Protected.

The pressure port is a 1/4"-18 NPT Male fitting made of 304L stainless steel. Each unit is approximately 2.60" inches long and weighs approximately .206lbs (.093Kg). A 2' shielded cable is supplied for making all of the proper connections. All of the transducers may also be ordered mounted in an optional NEMA 4 rated enclosure.

Attributes:

- **+/-1% FS Accuracy entire operating Temp. range**
- **Laser-welded stainless steel design (No O-Rings)**
- **Compatible with wide range of gases and liquids**
- **CE compliant**

Applications:

- **HVAC and Refrigeration Equipment**
- **Pump and Compressor Control**
- **Industrial Equipment**
- **Hydraulic Systems**
- **Level Depth Instrumentation**
- **Process Control**

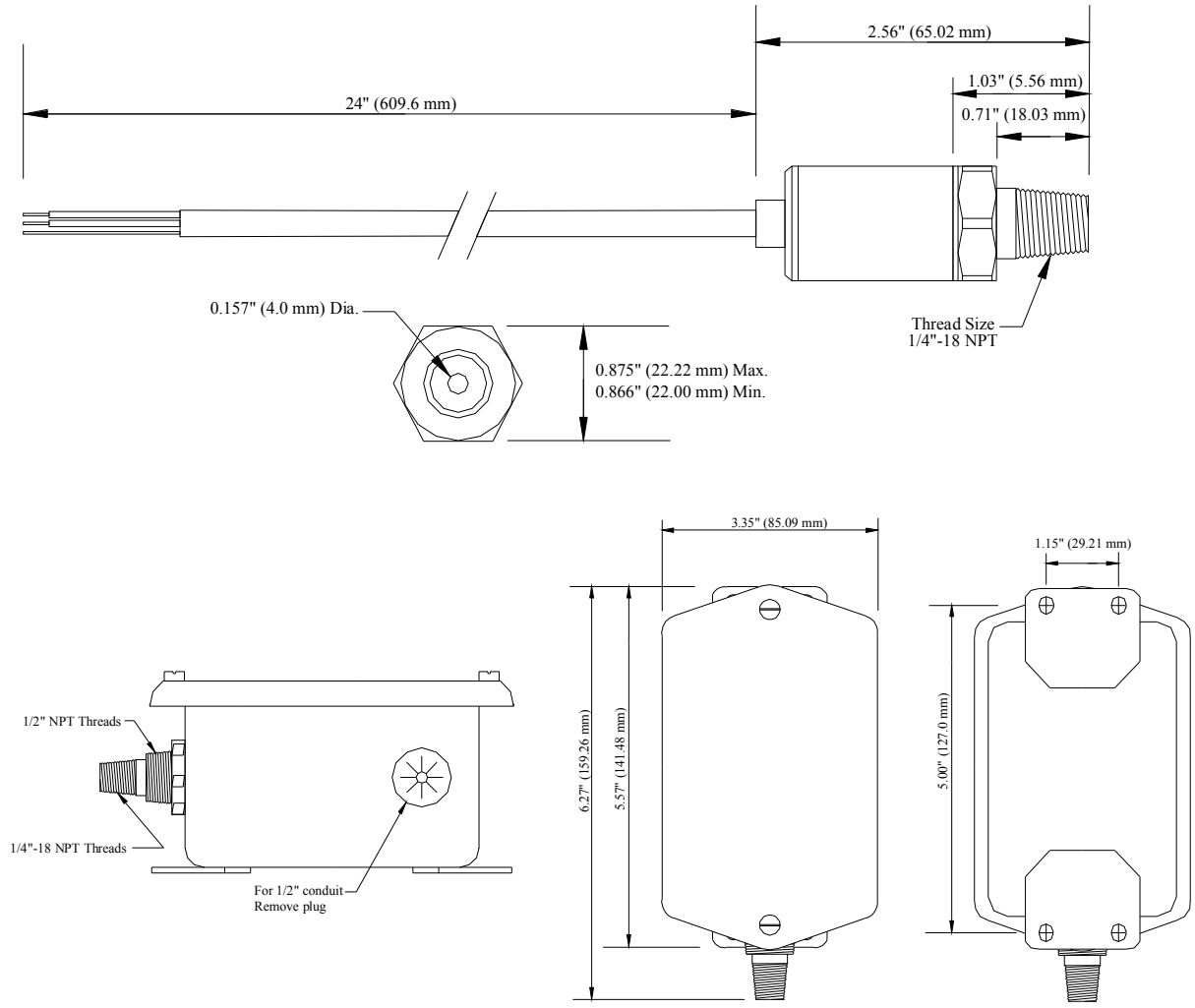
Product Specifications

Supply Voltage	+8-30VDC
Output Signal	4 to 20mA
Accuracy (Non-linearity, Hysteresis, Repeatability)	75 to 3000 psi: +/- 0.5% of FSO 15 to 60 psi: +/- 1.00% of FSO
Thermal Error	75 to 3000 psi: +/- 0.5% of FSO 15 to 50 psi: +/- 1.00% of FSO
Stability	+/-1% FS
Operating Temp. Range	-40 to 221°F (-40 to 105°C)
Response Time	< 1ms
Burst Pressure	3X Full Scale
Proof Pressure	3X Full Scale
Process Fitting	1/4"-18NPT Male 304L Stainless Steel
Case	304L Stainless Steel
EMC Compliance	100 V/M
Weight	< 0.206 lbs. (0.093Kg)

Wiring Diagrams available at www.workaci.com/instructions.htm
C0000047 Rev 2.pdf

Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Dimensions



Ordering Information

Pressure Range A/GP -[ ]	Enclosure Option -[ ]	Output Signal -[ ]
(15) 0-15 psig	( ) No NEMA 4 Enclosure (Std)	(20) 4 to 20mA
(50) 0-50 psig	(4) Mounted in NEMA 4 Enclosure(Optional)	
(100) 0-100 psig		
(200) 0-200 psig		
(300) 0-300 psig		
(500) 0-500 psig		
(1000) 0-1000 psig		
(1500) 0-1500 psig		
(2000) 0-2000 psig		
(3000) 0-3000 psig		

Example: A/GP-50-20 or A/GP-50-4-20 or A/GP-50-20 or A/GP3000-4-20

2305 Pleasant View Rd. Middleton Industrial Park Middleton, WI 53562
PH: (608) 831-2585 FAX (608) 831-7407

Product Data

A/629 Series

Wet to Wet Differential Pressure Transmitter

Product Description

The A/629 Differential Pressure Transmitter monitors differential pressure of air and compatible gases and liquids with 0.5% accuracy. The design employs dual pressure sensors converting pressure changes into a standard 4-20 mA output signal for two wire circuits. Small internal volume and minimum moving parts result in exceptional response and reliability.

Terminal block, zero and span adjustments are easily accessed under the top cover. The Series 629 Wet to Wet Differential Pressure Transmitter is designed to meet NEMA 4X (IP 66) construction.

The A/629 series transducers come with a 2 year warranty.

Product Specifications

Supply Voltage	+13 to 30 VDC
Output Signal	4 to 20 mA. Optional 0-5, 0-10 VDC
Accuracy	+/- 0.5% F.S.
Loop Resistance	0-1300 ohms maximum for current output. Voltage outputs, min load resistance: 2000 Ohms
Response Time	50 msec.
Operating Temp. Range	0 to 200°F (-18 to 93°C)
Compensated Temp. Limits	0 to 175°F (-18 to 79°C)
Electrical Connections	1/2" NPT conduit Terminal Block
Process Connections	1/4" Female NPT
Wetted Material Connections	316, 316L Stainless Steel
Agency Approvals	CE

Wiring Diagrams available at www.workaci.com/instructions.htm
C0000156 rev 1.pdf

Wet to Wet

Attributes:

- **Gas and liquid Compatible**
- **Optional 3 way valve package**
- **NEMA 4X (IP 66) construction**

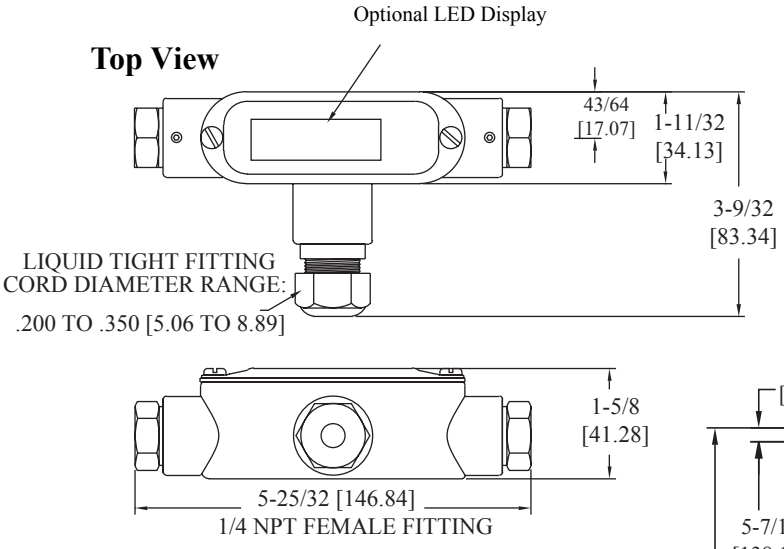
Applications:
Monitor Differential Pressures Across:

- **Flow Elements**
- **Heat exchangers**
- **Filters**
- **Pumps**
- **Coils**

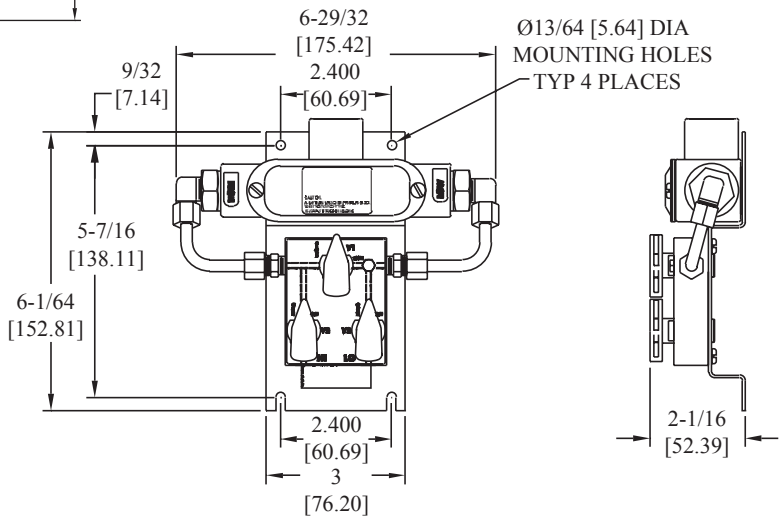
Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Dimensions

Top View

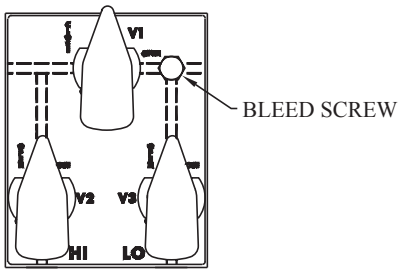


3 Valve Manifold



Model Number	Pressure Limits		
	Range (psid)	Working* Pressure (psid)	Over Pressure (psi)
A/629-10 Series	10	20	100
A/629-25 Series	25	50	250
A/629-50 Series	50	100	250
A/629-100 Series	100	200	500

* Pressures exceeding the working pressure limit may cause a calibration shift of up to ±3% of full scale.



Ordering Information

Pressure Ranges	Output	3-Valve Manifold (Optional)	LED Display (Optional)
A/629 -[ ]	-[ ]	-[ ]	-[ ]
(10) 0 to 10 psid*	**(5)** 0 to 5 VDC*	**( )** No Manifold (Standard)	**( )** No LED Display (Standard)
(25) 0 to 25 psid*	**(10)** 0 to 10 VDC*	**(3V)** Assembled on	**(D)** with LED Display*
(50) 0 to 50 psid	**(20)** 4 to 20 mA	3 Valve Manifold	
(100) 0 to 100 psid			

*Non-stocked options. Please contact ACI for estimated lead time.

2305 Pleasant View Rd. Middleton Industrial Park Middleton, WI 53562
PH: (608) 831-2585 FAX: (608) 831-7407

Product Data

A/WP Series

Wet to Wet Differential Pressure Transducers

Product Description

The A/WP Series is a two-wire wet to wet differential pressure transducer. The A/WP is ideally suited for use with any harsh media, wet or dry, that is compatible with 17-4 PH and 300 series stainless steel. The A/WP may be powered with a 9 to 30 VDC supply voltage and outputs a linear 4 to 20 mA, 0 to 5, or 0 to 10 VDC output signal. To ensure an accurate linear analog output, the WP contains circuitry to provide signal conditioning, reverse polarity protection, and temperature compensation as an integral part of the device.

Built for remote installation, the A/WP is a rugged unit, housed in a splash and dust proof NEMA 4/IP65 rated stainless steel enclosure. Both of the input pressure ports will accept a 1/4" NPT Male fitting. Each unit is approximately 3.01" long x 3.05" tall x 2.15" in depth and weighs approximately 0.75 lbs. (.34Kg)

The A/WP pressure transducers are available in ranges from 0 to 1 PSID all the way up to 0 to 100 PSID. Bi-Directional ranges are available. Optional pressure snubbers are also avilable upon request. (part # A/SS-4-SA-EW)

All of the A/WP Series transducers have a 2 year warranty.

Product Specifications

Supply Voltage **4-20mA** **0 to 5 VDC** **0 to 10 VDC**	Min: 9 + 0.02 x (Load + Line) Max: 30+ 0-004 x (Load + Line) +9 to 30 VDC +13 to 30 VDC
Analog Output Signal	4 to 20mA or 0 to 10 VDC
Accuracy	+/-0.25% of FSO @ Constant Temp
Long Term Stability	+/-0.50% FS / 1 Year
External Load	4-20 mA : 1K Ohms Max. 0 to 5 & 0 to 10 VDC: > 5K Ohms Min.
Output Impedance	100 Ohms
Compensated Temperature Range	-1 to 65°C (30 to 150°F)
Thermal Effects	+/- 1.8% / 50°C(+/-2% / 100°F)
Operating Temperature Range	-18 to 80°C (0 to 175°F)
Max. Working Pressure	250 PSIG
Response Time	30 to 50 msecs.
Agency Approvals	CE

Wiring Diagrams available at www.workaci.com/instructions.htm
C00000108Rev1.pdf

Wet to Wet

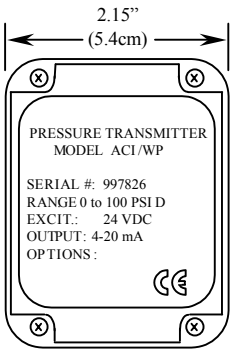
Attributes:
- Gas and Liquid Compatible
- Fast Response
- Available with pre-assembled 3-Valve Manifold Option
- NEMA 4/IP65 Rating

Applications:
- Chiller and Boiler Systems
- Pumps and Compressors
- Environmental Control Systems
- Level Monitoring
- Refrigerant Systems

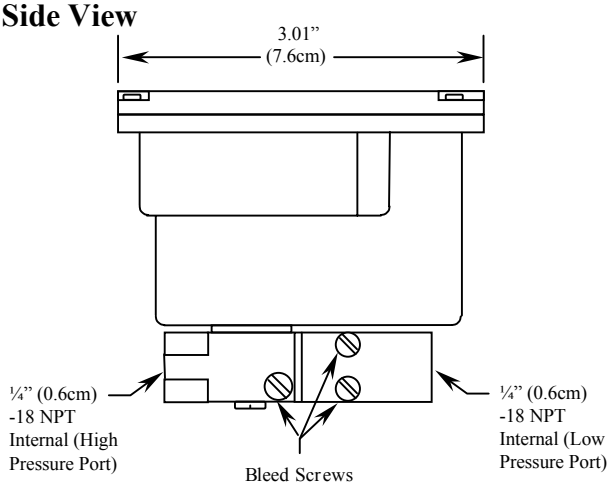
Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Dimensions

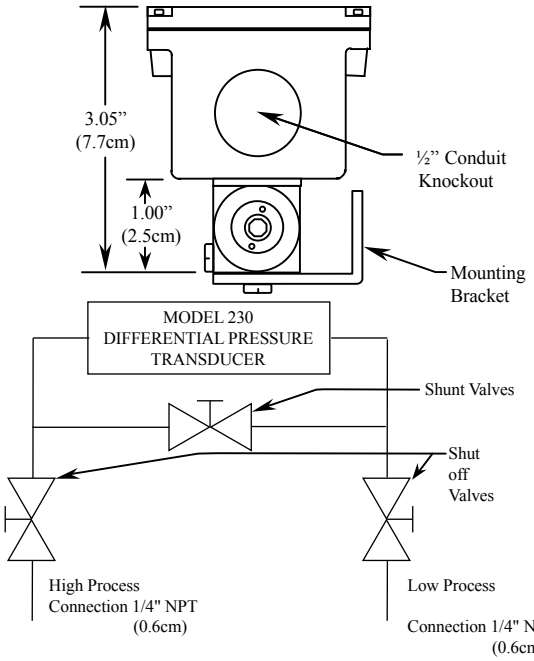
Top View



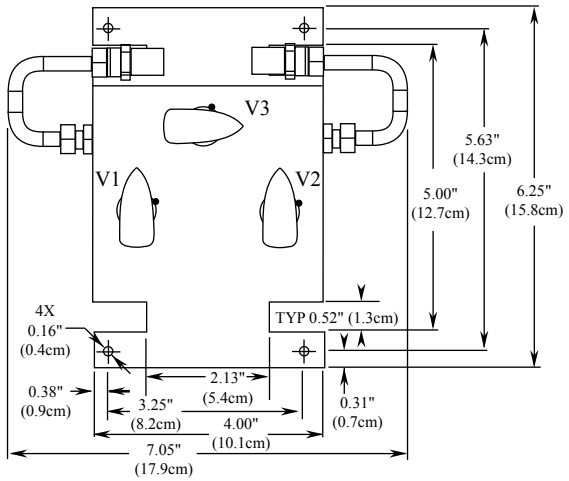
Side View



End View



3-Valve Manifold Assembly



Unidirectional Spans			Bidirctional Spans		
Pressure Range (PSID)	Proof Pressure High Side (PSI)	Proof Pressure Low Side (PSI)	Pressure Range (PSID)	Proof Pressure High Side (PSI)	Proof Pressure Low Side (PSI)
0 to 1	20	2.5	+/-1	40	2.5
0 to 5	100	12.5	+/-5	100	12.5
0 to 10	100	25	+/-10	200	25
0 to 25	250	62.5	+/-25	250	62.5
0 to 50	250	125	+/-50	250	125
0 to 100	250	250	n/a	n/a	n/a

Ordering Information

A/WP [ ] -[ ] -[ ] -[ ]

Pressure Ranges

- **( )** Unidirectional Span (Standard)
- **(B)** Bi-Directional Span

Pressure Ranges

- **(1)** 0 to 1 psid or +/-1 PSID
- **(5)** 0 to 5 psid or +/-5 PSID
- **(10)** 0 to 10 psid or +/-10 PSID
- **(25)** 0 to 25 psid or +/-25 PSID
- **(50)** 0 to 50 psid or +/-50 PSID
- **(100)** 0 to 100 psid Note: +/-100 PSID NOT available

Output

- **(5)** 0 to 5 VDC
- **(10)** 0 to 10 VDC
- **(20)** 4 to 20 mA

3-Valve Manifold (Optional)

- **( )** No Manifold (Standard)
- **(3)** Assembled on 3 Valve Manifold

2305 Pleasant View Rd. Middleton Industrial Park Middleton, WI 53562
PH: (608) 831-2585 FAX: (608) 831-7407

Product Data

A/AFS-222
A/AFS-262

Pressure Switches

Product Description

The A/AFS Series differential pressure switches are general purpose proving switches designed for both HVAC and Energy Management applications. These pressure switches can be used to sense positive, negative, or differential air pressures.

The A/AFS-222 has a field adjustable operating range of 0.07" to 12.0" wc The A/AFS-222 has a field adjustable setpoint range of 0.05" +/- 0.02" to 12" wc with a field adjustable release range of 0.04" to 11.2" of w.c..

The A/AFS-262 has a field adjustable operating range of 0.07" to 2.0" wc. It also has a setpoint range of 0.05" +/- 0.02" to 2" wc with a field adjustable "release range" of 0.04" to 1.9" w.c. The sampling connections are located on each side of the diaghram.

Both the A/AFS-222 and A/AFS-262 will accept a 0.25" O.D. rigid metallic tubing via the integral compression ferrule and nut. The enclosure cover guards against accidental contact with the live switch terminal screws and the setpoint adjusting screw. Both units also contain a 1/2" conduit knockout in the cover of the enclosure as well as a diagraphm, calibration spring, and a snap acting SPDT switch.

Product Specifications

Input Pressure Range	AFS-222 (0.07” to 12” w.c.) AFS-262 (0.07” to 2” w.c.)
Output	1 set SPDT Contacts
Operating Temperature Range	-40 to 180ºF (-40 to 82ºC)
Electrical Rating	300 VA pilot duty @ 115 to 277 VAC 15 amps non-inductive to 277 VAC, 60 HZ
Maximum Pressure	0.5 psi (0.03 Bar)
Switch Differential	increasing from 0.02” +/- 0.01”wc to Approx 0.8” wc @ Maximum setpoint.
Setpoint	+0.08” wc @ Maximum Setpoint
Measured Media	Air, or combustion by-products that will not degrade silicon
Mounting Direction	Any Vertical Plane
Agency Approval	UL, FM, CSA, CE
Shipping Weight	1.2 lbs
Environmental Compliance	RoHS Compliant

Wiring Diagrams available at www.workaci.com/instructions.htm

C0000122Rev 2.pdf

Pressure Switches

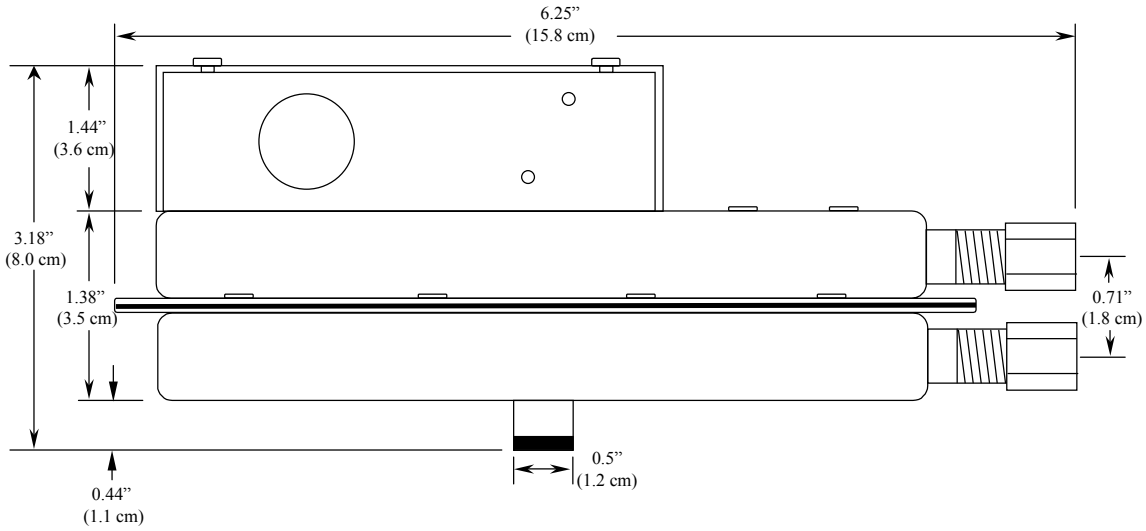
Attributes:
- Field Adjustable Setpoints
- 2 Year Warranty
- RoHS compliant

Applications:
- General Purpose Proving Switch
- Monitor Flow
- Monitor Filter Blockage
- May be used to sense:
  positive air pressure
  negative air pressure
  differential pressure

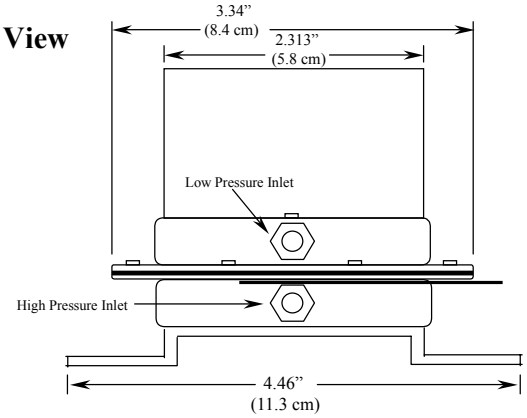
Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Dimensions

Side View



End View



Ordering Information

Pressure Switch

A /AFS [ ]

222
262

Example: A /AFS-222 or A /AFS-262

2305 Pleasant View Rd. Middleton Industrial Park Middleton, WI 53562
PH: (608) 831-2585 FAX: (608) 831-7407

Product Data

A/AFS-460

Pressure Switches

Product Description

The A/AFS-460 series differential pressure switches are general purpose proving switches designed to require a manual operator reset following actuation. These pressure switches can be used to sense either positive, negative, or differential air pressure in HVAC and Energy Management applications which require operator interface.

The A/AFS-460 has an input operating range of 0.40” to 12.0” w.c. with an adjustable setpoint range of 0.40” +/- 0.06” to 12” of w.c.. Each unit contains a diaghram, calibration spring, and a snap-acting SPST-NC (Manual Reset) switch.

The sampling connections are located on each side of the diaghram. They will accept a 0.25” O.D. rigid metallic tubing via the integral compression ferrule and nut. The enclosure cover guards against accidental contact with the “live switch” terminal screws and the setpoint adjustment screw. The A/AFS-460 also contains a 1/2” conduit knockout in the cover of the enclosure. Other options may be available upon request.

All of the A/AFS-460 Series differential pressure switches come with a two year factory warranty. Please contact ACI for more information regarding the A/AFS-460 differential pressure switches.

Product Specifications

Input Pressure Range	AFS-460 (0.40” to 12” w.c.)
Output	SPST -NC Contacts (Manual Reset)
Operating Temperature Range	-40 to 180°F (-40 to 82°C)
Electrical Rating	300 VA pilot duty @ 115 to 277 VAC 15 amps non-inductive to 277 VAC, 60 HZ
Maximum Pressure	0.5 psi (0.03 Bar)
Switch Differential	increasing from 0.02” +/- 0.01”wc to Approx 0.8” wc @ Maximum setpoint.
Setpoint	+0.08” wc @ Maximum Setpoint
Measured Media	Air, or combustion by-products that will not degrade silicon
Mounting Direction	Any Vertical Plane
Agency Approval	UL, FM, CSA, CE
Shipping Weight	1.2 lbs
Environmental Compliance	RoHS Compliant

Wiring Diagrams available at www.workaci.com/instructions.htm
C0000160 Rev 1.pdf

Pressure Switches

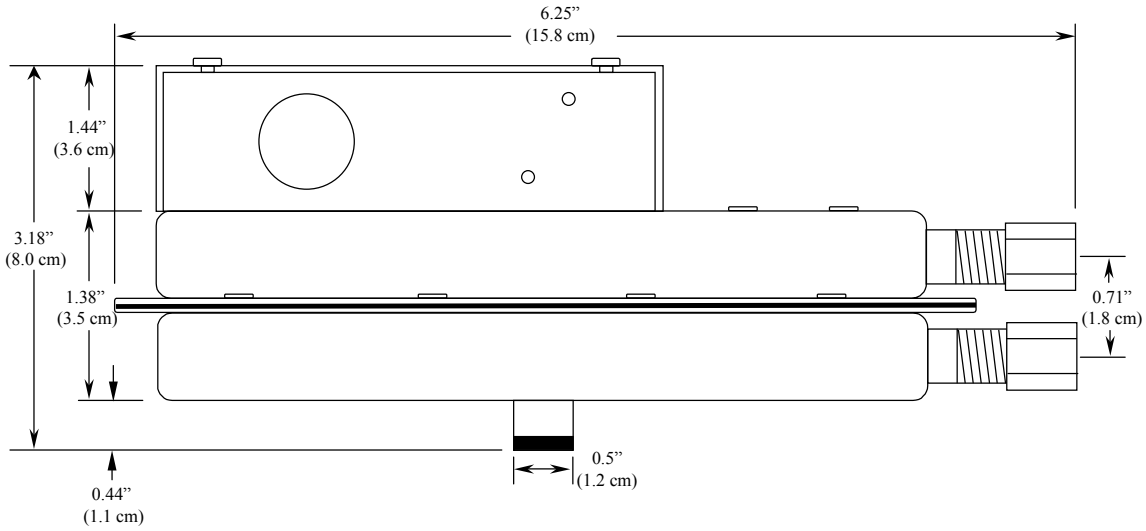
Attributes:
- Field Adjustable Setpoints
- 2 Year Warranty
- RoHS compliant

Applications:
- General Purpose Proving Switch
- Monitor Flow
- Monitor Filter Blockage
- May be used to sense:
  positive air pressure
  negative air pressure
  differential pressure

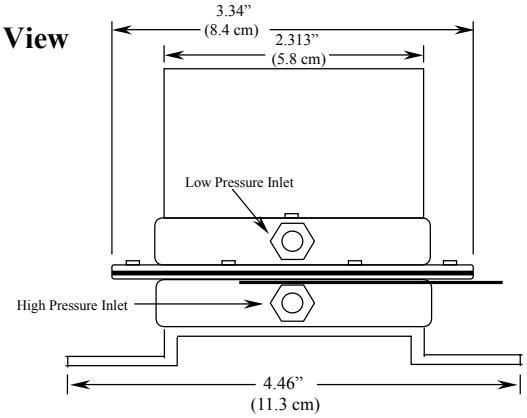
Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Dimensions

Side View



End View



Ordering Information

Pressure Switch

A /AFS-460

Example: A/AFS-460

2305 Pleasant View Rd. Middleton Industrial Park Middleton, WI 53562
PH: (608) 831-2585 FAX: (608) 831-7407

Product Data

A/CS Series
A/CSX Series

Solid-Core Fixed Current "Status" Switches

Product Description

The A/CS and A/CSX series current switches are available in a solid-core with either Normally-Open (N/O) or Normally-Closed (N/C) output configurations. All of these sensors will have a solid-state output with a fixed trip point (setpoint). These current switches are ideal for providing status information on any type of AC current using equipment. The A/CS and A/CSX current switches are accurate, reliable, easy to install, and require less servicing than differential pressure switches, flow switches, and paddle wheels.

These current switches should be used in applications in which a "Go/No Go" current switch is required. A change in the operating current may indicate mechanical failure or that the unit has been turned off.

The A/CS and A/CSX series current switches can be used to monitor devices with a maximum continuous operating current of up to 250 Amps. These current switches will not need to be externally powered, since the power for the switch is induced from the conductor being monitored. Another great feature of the A/CS and A/CSX series current switches is that they include a Red "Status" LED that will indicate whether the current is above or below the fixed trip point.

Product Specifications

Sensor Power	Induced from monitored conductor
Amperage Rating	0 to 250 Amps continuous
Operating Frequency	40 to 1 kHz
Max. Sensing Current Voltage	600VAC
Isolation Voltage	2,200 VAC
Output Switch Rating	**A/CS (N/O):** 0.3A @ 200 VAC/VDC **A/CSX (N/C):** 0.15A @ 300 VAC/VDC
Status LED Indication	Red LED - Above Trip Point
Aperture (Hole) Size	0.75", Accepts up to 350 MCM Cables
DIN Rail Size	35mm
Unit Weight	0.21 lbs
Operating Temperature Range	-15 to 40°C (5 to 104°F)
Operating Humidity Range	0 to 95% RH, non-condensing

Note: DO NOT use the LED's to indicate whether the sensors have power applied to them.

Wiring Diagrams available at www.workaci.com/instructions.htm
c0000001rev11.pdf

Current

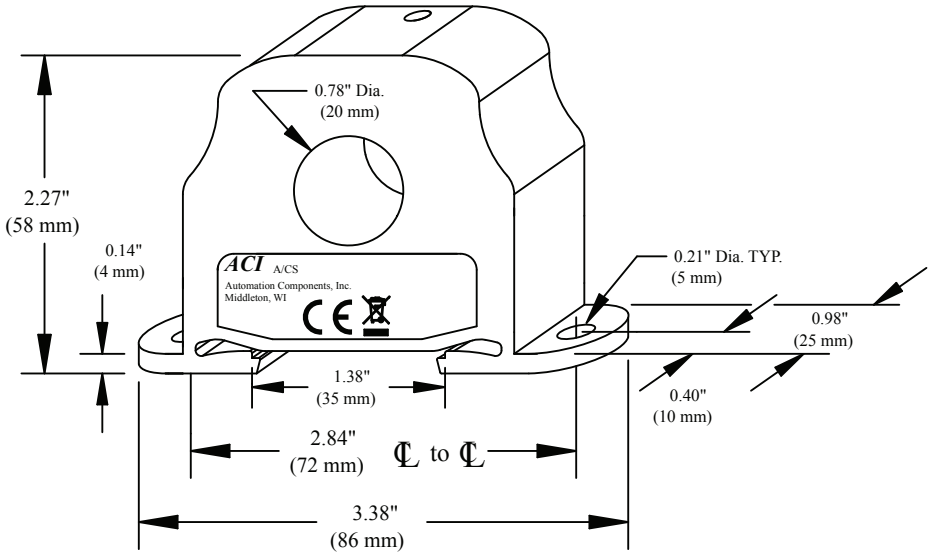
Attributes:
- "Go/NoGo" Status Switch
- Integral Din-rail mounting flange
- Rated up to 250 Amps
- Limited 5 year warranty
- UL94-5VB (enclosure rating)
- LED Indication

Applications:
- Monitoring Fans, pumps, and other electrical equipment for status
- Rated for industrial use

Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Dimensions

Solid-Core



Ordering Information

ACI Model #	Description	Fixed Trip Point	Output Switch Rating
A/CS	Solid-Core Current Switch, N/O, 0-250A	0.50 Amps	0.30A @ 200 VAC/VDC
A/CS-L	Solid-Core Current Switch, N/O, 0-250A	0.20 Amps	0.30A @ 200 VAC/VDC
A/CSX	Solid-Core Current Switch, N/C, 0-250A	1.00 Amps	0.15A @ 300 VAC/VDC
A/CSX-L	Solid-Core Current Switch, N/C, 0-250A	0.50 Amps	0.15A @ 300 VAC/VDC

Warning: Not intended to be used in Life & Safety Applications or for use in any hazardous locations.

Product Data

A/SCS Series

Split-Core Fixed Current "Status" Switches

Product Description

The A/SCS and A/SCSX series current switches are available in a split-core with either Normally-Open (N/O) or Normally-Closed (N/C) output configurations. All of these sensors will have a solid-state output with a fixed trip point (setpoint). These current switches are ideal for providing status information on any type of AC current using equipment. Both the A/SCS and A/SCSX series current switches are an excellent choice for retrofit or existing installations, since you will not have to power down the unit and disconnect any wires during the installation process. The A/SCS and A/SCSX current switches are accurate, reliable, easy to install, and require less servicing than differential pressure switches, flow switches, and paddle wheels.

These current switches should be used in applications in which a "Go/No Go" current switch is required. The "Go/No Go" Current switches should be used to monitor the "on/off" status of any equipment that uses AC current.

The A/SCS and A/SCSX series current switches can be used to monitor devices with a maximum continuous operating current of up to 250 Amps depending on the model number ordered. These current switches will not need to be externally powered since the power for the switch is induced from the conductor being monitored. Another great feature of the A/SCS and A/SCSX series current switches is that they include a Red "Status" LED that will indicate whether the current is above the fixed trip point.

Product Specifications

Sensor Power	Induced from monitored conductor
Amperage Rating	See ordering info on back
Operating Frequency	40 to 1 kHz
Isolation Voltage	2,200 VAC
Max. Sensing Current Voltage	600 VAC
Output Switch Rating	**A/SCS (N/O):** 0.3A @ 200 VAC/VDC **A/SCSX (N/C):** 0.15A @ 300 VAC/VDC
Status LED Indication	Red LED - Above Trip Point
Aperture (Hole) Size	0.75", Accepts up to 350 MCM Cables
DIN Rail Size	35mm
Unit Weight	0.21 lbs
Operating Temperature Range	-15 to 40°C (5 to 104°F)
Operating Humidity Range	0 to 95% RH, non-condensing

Note: DO NOT use the LED's to indicate whether the sensors have power applied to them.

Wiring Diagrams available at www.workaci.com/instructions.htm
C0000002 Rev 10.pdf

Current

Attributes:

- Split-Core design is suited for retrofit applications
- Integral Din-rail mounting flange
- Limited 5 year warranty
- UL94-5VB (enclosure rating)
- LED Indication
- Models rated to 200 and 250 amps

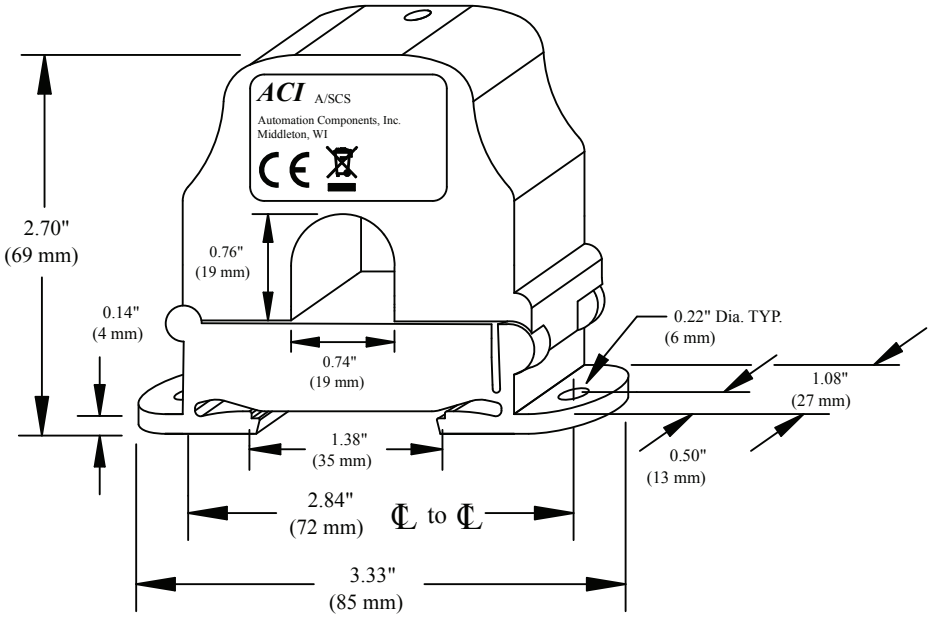
Applications:

- Monitoring fans, pumps and other electrical equipment for status
- Rated for industrial use

Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Dimensions

Split-Core



Ordering Information

ACI Model #	Description	Fixed Trip Point	Output Switch Rating
A/SCS	Split-Core Current Switch, N/O, 0-200A	2.50 Amps	0.30A @ 200 VAC/VDC
A/SCS-L	Split-Core Current Switch, N/O, 0-200A	1.50 Amps	0.30A @ 200 VAC/VDC
A/SCSX	Split-Core Current Switch, N/C, 0-250A	2.50 Amps	0.15A @ 300 VAC/VDC

⚠ ***Warning: Not intended to be used in Life & Safety Applications or for use in any hazardous locations.***

Product Data

A/ACS Series

Solid-Core Adjustable Current "Status" Switches

Product Description

The A/ACS and A/ACSX series current switches are available in a solid-core with either Normally-Open (N/O) or Normally-Closed (N/C) output configurations. All of these sensors will have a solid-state output with an adjustable trip point (setpoint). These current switches are ideal for providing status information on any type of AC current using equipment.

These current switches should be used in applications where a current switch with an adjustable trip point is required. A change in the operating current may indicate motor failure, belt loss/slippage, or mechanical failure. Any time one of these events occurs, the current can significantly increase or decrease, thus tripping the sensor, and notifying the Building Management System of an alarm condition.

The A/ACS and A/ACSX series current switches can be used to monitor devices with a maximum continuous operating current of up to 250 Amps. These current switches will not need to be externally powered, since the power for the switch is induced from the conductor being monitored. Another great feature of the A/ACS and A/ACSX series current switches is that they include a Red and Green LED that will indicate the "Status" of the switch contacts.

Product Specifications

Sensor Power	Induced from monitored conductor
Amperage Rating	0 to 250 Amps continuous
Operating Frequency	40 to 1 kHz
Isolation Voltage	2,200 VAC
Max. Sensing Current Voltage	600 VAC
Output Switch Rating	**A/ACS (N/O):** 0.3A @ 200 VAC/VDC **A/ACSX (N/C):** 0.15A @ 300 VAC/VDC
Status LED Indication	Red LED - Above Trip Point Green LED - Below Trip Point
Aperture (Hole) Size	0.75", Accepts up to 350 MCM Cables
DIN Rail Size	35mm
Unit Weight	0.21 lbs
Operating Temperature Range	-15 to 40°C (5 to 104°F)
Operating Humidity Range	0 to 95% RH, non-condensing
Hysteresis (Dead Band)	10% Setpoint, Typical

Note: DO NOT use the LED's to indicate whether the sensors have power applied to them.

Wiring Diagrams available at www.workaci.com/instructions.htm
C0000003 Rev 10.pdf

Current

Attributes:

- Red and Green status LED's
- Integral Din-rail mounting flange
- Rated up to 250 Amps
- Limited 5 year warranty
- UL94-5VB (enclosure rating)

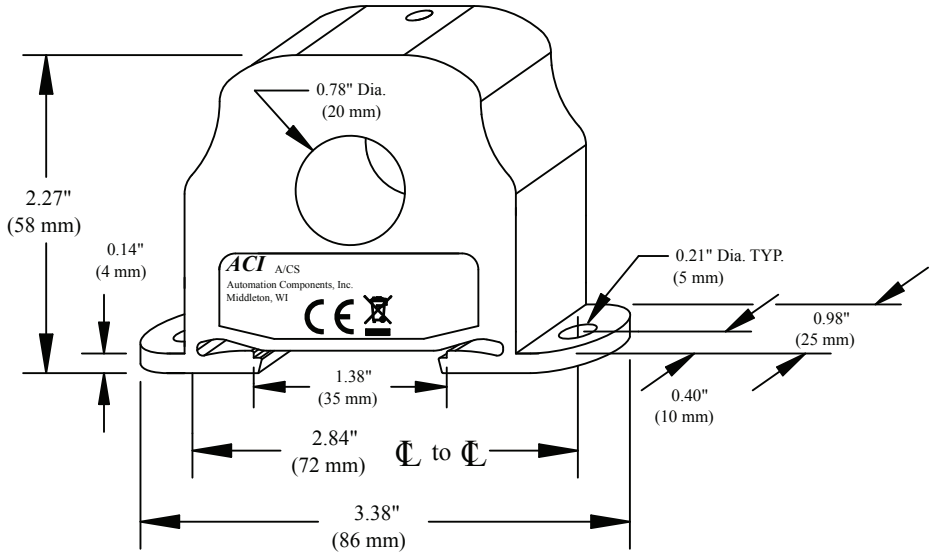
Applications:

- Monitoring overloads, underloads and normal operating conditions
- Monitoring belt loss or slippage
- Monitoring Filter Status
- Rated for industrial use

Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Dimensions

Solid-Core



CE C UL US LISTED IND.CONT.EQ. 3JHX RoHS COMPLIANT 2002/95/EC

Ordering Information

ACI Model #	Description	Adjustable Trip Point	Output Switch Rating
A/ACS	Solid-Core, Current Switch, N/O, 0-250A	1.0-250 Amps	0.30A @ 200 VAC/VDC
A/ACS-L	Solid-Core Current Switch, N/O, 0-250A	0.50-250 Amps	0.30A @ 200 VAC/VDC
A/ACSX	Solid-Core Current Switch, N/C, 0-250A	1.0-250 Amps	0.15A @ 300 VAC/VDC

⚠ ***Warning: Not intended to be used in Life & Safety Applications or for use in any hazardous locations.***

Product Data

A/ASCS Series

Split-Core Adjustable Current "Status" Switches

Product Description

The A/ASCS and A/ASCSX series current switches are available in a split-core with either Normally-Open (N/O) or Normally-Closed (N/C) output configurations. All of these sensors will have a solid-state output with an adjustable trip point (setpoint). These current switches are ideal for providing status information on any type of AC current using equipment.

These current switches should be used in applications in which a current switch with adjustable trip point is required. A change in the operating current may indicate motor failure, belt loss/slippage, or mechanical failure. Any time one of these events occurs, the current can significantly increase or decrease, thus tripping the sensor, and notifying the Building Management System of an alarm condition.

The A/ASCS and A/ASCSX series current switches can be used to monitor devices with a maximum continuous operating current of 200 to 250 Amps depending on the model. These current switches will not need to be externally powered, since the power for the switch is induced from the conductor being monitored. Another great feature of the A/ASCS and A/ASCSX series current switches is that they include a Red and Green LED that will indicate the "Status" of the switch contacts.

Product Specifications

Sensor Power	Induced from monitored conductor
Amperage Rating	See Ordering Info on Back
Operating Frequency	40 to 1 kHz
Isolation Voltage	2,200 VAC
Max. Sensing Current Voltage	600 VAC
Output Switch Rating	**A/ASCS (N/O):** 0.3A @ 200 VAC/VDC **A/ASCSX (N/C):** 0.15A @ 300 VAC/VDC
Status LED Indication	Red LED - Above Trip Point Green LED - Below Trip Point
Aperture (Hole) Size	0.75", Accepts up to 350 MCM Cables
DIN Rail Size	35mm
Unit Weight	0.21 lbs
Operating Temperature Range	-15 to 40°C (5 to 104°F)
Operating Humidity Range	0 to 95% RH, non-condensing
Hysteresis (Dead Band)	10% Setpoint, Typical

Note: DO NOT use the LED's to indicate whether the sensors have power applied to them.

Wiring Diagrams available at www.workaci.com/instructions.htm
C0000004 Rev 9.pdf

Current

Attributes:

- Split-Core design is suited for retrofit applications
- Red and Green status LED's
- Integral Din-rail mounting flange
- Models rated to 200 and 250 Amps
- Limited 5 year warranty
- UL94-5VB (enclosure rating)

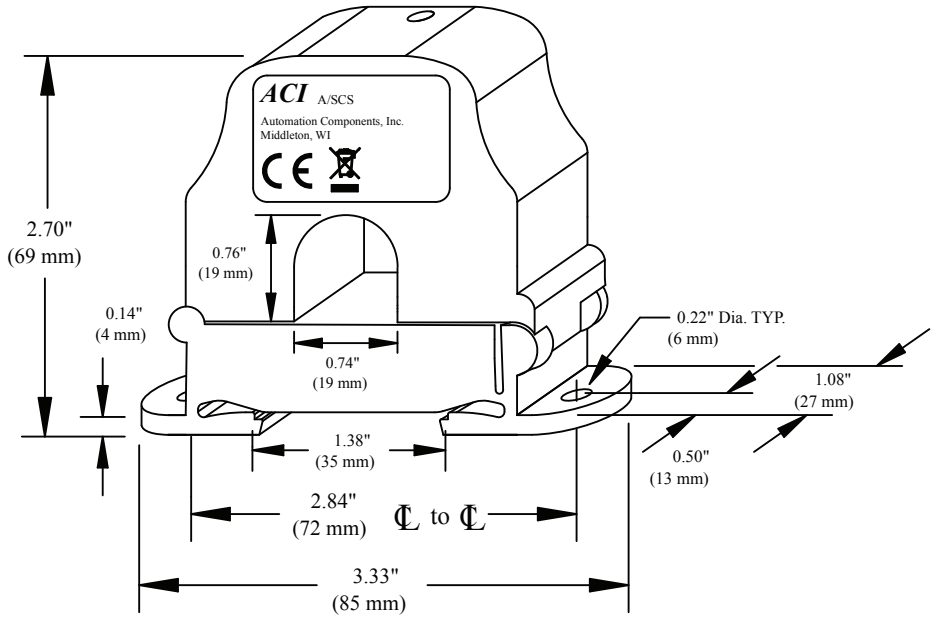
Applications:

- Monitoring overload, underloads, and normal operating conditions
- Monitoring belt loss/ slippage
- Monitoring Filter Status
- Rated for industrial use

Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Dimensions

Split-Core



Ordering Information

ACI Model #	Description	Adjustable Trip Point	Output Switch Rating
A/ASCS	Split-Core, Current Switch, N/O, 0-200A	3.00-200 Amps	0.30A @ 200 VAC/VDC
A/ASCS-L	Split-Core Current Switch, N/O, 0-200A	2.00-200 Amps	0.30A @ 200 VAC/VDC
A/ASCSX	Split-Core Current Switch, N/C, 0-250A	3.00-250 Amps	0.15A @ 300 VAC/VDC
A/ASCSX-L	Split-Core Current Switch, N/C, 0-250A	2.50-250 Amps	0.15A @ 300 VAC/VDC

Warning: Not intended to be used in Life & Safety Applications or for use in any hazardous locations.

"First in Sensor Quality"

Product Data

A/CTA Series

Solid-Core 4-20 mA Output Current Sensor

Product Description

The A/CTA Series current sensors monitor the current flowing to electrical equipment or buildings. The magnitude of this current is then converted into a linear and proportional 4 to 20 mA output signal, which can be monitored by your Building Management, DDC, or PLC controller. The A/CTA Series current sensors are available in either an Average or True RMS output version. All of these sensors have jumper selectable input ranges except for the 0 to 5 Amp input range on the A/CTA-05 series sensors.

The A/CTA series current sensors are fast acting and extremely accurate from 1 to 100% of the Full Scale Output. All of the A/CTA series current sensors are factory calibrated using an NIST Traceable standard and shipped with the jumper placed in the largest jumper selectable range.

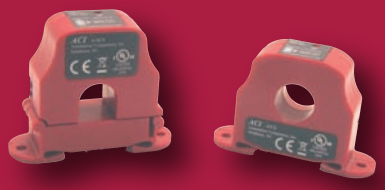
In applications where the maximum current is larger than 250 Amps, ACI recommends the use of a traditional ratio:5 (5A) current transformer and the A/CTA-5 for best results. The A/CTA must be externally powered using a +12 to 30 VDC power supply.

Product Specifications

Sensor Supply Voltage (Vs)	+12 to 30 VDC
Amperage Rating	0-250 Amps (See Ordering Information)
Supply Current	36 mA max.
Output	4-20mA, 2-wire Loop Powered
Accuracy (from 1-100% of FSO)	**A/CTA:** +/- 0.5% **A/CTA-VFD:** +/- 0.5%
Maximum Load Resistance	**A/CTA:** 700 Ohms @ 24VDC (Vs-9)/0.02-40.2 **A/CTA-VFD:** 650 Ohms @ 24VDC (Vs-10)/0.02-40.2
Response Time	**A/CTA:** < 75mS **A/CTA-VFD:** <200mS
Operating Frequency Range	30 to 1 kHz
Isolation Voltage	2,200 VAC
Max. Sensing Current Voltage	600 VAC
Aperture (Hole) Size	0.75", Accepts up to 350 MCM Cables
Operating Temp Range A/CTA **A/CTA-VFD**	-15 to 40°C (5 to 104°F) 0 to 40°C (32 to 104°F)
Operating Humidity Range	0 to 95% RH, non-condensing

Wiring Diagrams available at www.workaci.com/instructions.htm
c0000005rev12.pdf

Current



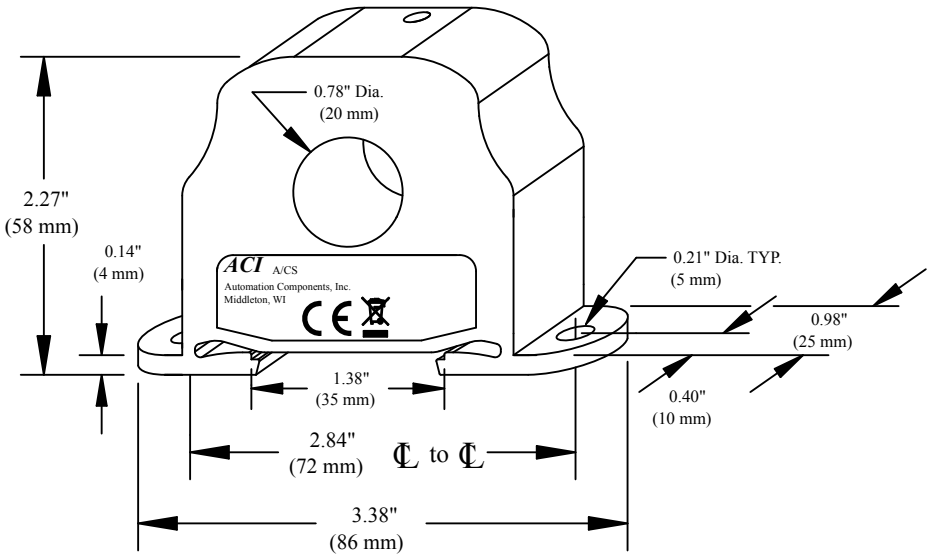
Attributes:
- Integral 35mm Din-rail mounting flange
- Rated up to 250 Amps
- Limited 5 year warranty
- True RMS Versions available (VFD models)
- High Accuracy
- UL94-5VB (enclosure rating)

Applications:
- Load trending Equipment (current monitoring)
- Monitoring Building Loads
- Monitoring VFD Drives
- Rated for industrial use

Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Dimensions

Solid-Core



Ordering Information

ACI Model #	Description	Jumper Selectable Range	CE Compliant
A/CTA-5	Loop Powered, Solid-Core, 4-20 mA Average Output	0-5 Amps *(Not Selectable)*	Yes
A/CTA-50	Loop Powered, Solid-Core, 4-20 mA Average Output	0-10, 0-20, 0-50 Amps	Yes
A/CTA-250	Loop Powered, Solid-Core, 4-20 mA Average Output	0-100, 0-200, 0-250 Amps	Yes
A/CTA-5-VFD	Loop Powered, Solid-Core, True RMS, 4-20 mA Output **	0-5 Amps *(Not Selectable)*	No
A/CTA-50-VFD	Loop Powered, Solid-Core, True RMS, 4-20 mA Output **	0-10, 0-20, 0-50 Amps	No
A/CTA-250-VFD	Loop Powered, Solid-Core, True RMS, 4-20 mA Output **	0-100, 0-200, 0-250 Amps	No

**Note: All -VFD options should be used with VFD's (Variable Frequency Drives)

Warning: Not intended to be used in Life & Safety Applications or for use in any hazardous locations.

Product Data

A/SCTA Series

Split-Core 4-20 mA Output Current Sensors

Product Description

The A/SCTA Series current sensors monitor the current flowing to electrical equipment or buildings. The magnitude of this current is then converted into a linear and proportional 4 to 20 mA output signal, which can be monitored by your Building Management, DDC, or PLC controller. The A/SCTA Series current sensors are available in either an Average or True RMS output version. All of these sensors have jumper selectable input ranges except for the 0 to 5 Amp input range.

The A/SCTA series current sensors are fast acting and extremely accurate from 1 to 100% of the Full Scale Output. All of the A/SCTA series current sensors are factory calibrated using an NIST Traceable standard and shipped with the jumper placed in the largest jumper selectable range.

In applications where the maximum current is larger than 200 Amps, ACI recommends the use of a traditional ratio:5 (5A) current transformer and the A/SCTA-5 for best results. The A/SCTA must be externally powered using a +12 to 30 VDC power supply.

Product Specifications

Sensor Supply Voltage (Vs)	+12 to 30 VDC
Amperage Rating	0-200 Amps (See Ordering Information)
Supply Current	36 mA max.
Output	4-20mA, 2-wire Loop Powered
Accuracy (from 1-100% of FSO)	**A/SCTA:** +/- 0.5% **A/SCTA-VFD:** +/- 0.5%
Maximum Load Resistance	**A/SCTA:** 700 Ohms @ 24VDC (Vs-9)/0.02-40.2 **A/SCTA-VFD:** 650 Ohms @ 24VDC (Vs-10)/0.02-40.2
Response Time	**A/SCTA:** < 75mS **A/SCTA-VFD:** <200mS
Operating Frequency Range	30 to 1 kHz
Isolation Voltage	2,200 VAC
Max. Sensing Current Voltage	600 VAC
Aperture (Hole) Size	0.75", Accepts up to 350 MCM Cables
Operating Tem Range A/CTA **A/CTA-VFD**	-15 to 40°C (5 to 104°F) 0 to 40°C (32 to 104°F)
Operating Humidity Range	0 to 95% RH, non-condensing

Wiring Diagrams available at www.workaci.com/instructions.htm
C0000006 Rev 11.pdf

Current

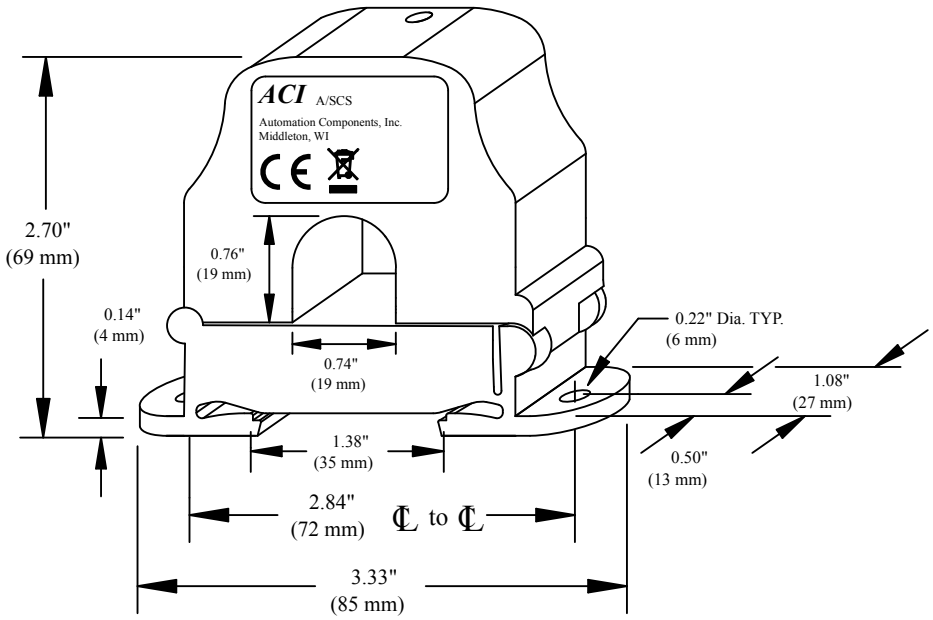
Attributes:
- **Split-Core design for retrofit applications**
- **Integral 35mm Din-rail mounting flange**
- **Limited 5 year warranty**
- **True RMS versions Available (VFD models)**
- **High Accuracy**
- **UL94-5VB (enclosure rating)**

Applications:
- **Load trending equipment (current monitoring)**
- **Load Trending building current consumption**
- **Rated for industrial use**

Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Dimensions

Split-Core



CE

C UL US LISTED IND.CONT.EQ. 3JHX

RoHS COMPLIANT 2002/95/EC

Ordering Information

ACI Model #	Description	Jumper Selectable Range	CE Compliant
A/SCTA-5	Loop Powered, Split-Core, 4-20 mA Average Output	0-5 Amps *(Not Selectable)*	Yes
A/SCTA-50	Loop Powered, Split-Core, 4-20 mA Average Output	0-10, 0-20, 0-50 Amps	Yes
A/SCTA-200	Loop Powered, Split-Core, 4-20 mA Average Output	0-100, 0-150, 0-200 Amps	Yes
A/SCTA-5-VFD	Loop Powered, Split-Core, True RMS, 4-20 mA Output **	0-5 Amps *(Not Selectable)*	No
A/SCTA-50-VFD	Loop Powered, Split-Core, True RMS, 4-20 mA Output **	0-10, 0-20, 0-50 Amps	No
A/SCTA-200-VFD	Loop Powered, Split-Core, True RMS, 4-20 mA Output **	0-100, 0-150, 0-200 Amps	No

**Note: All –VFD options should be used with VFD's (Variable Frequency Drives)

⚠ ***Warning: Not intended to be used in Life & Safety Applications or for use in any hazardous locations.***

Product Data

A/CTE Series
Solid-Core 0-5VDC Output Current Sensor

A/CTV Series
Solid-Core 0-10VDC Output Current Sensor

Product Description

The A/CTE and A/CTV Series current sensors monitor the current flowing to electrical equipment or buildings. The magnitude of this current is then converted into a linear 0 to 5 or 0 to 10 VDC output signal, which can be monitored by your Building Management, DDC, or PLC controller. All of these sensors have jumper selectable input ranges except for the 0 to 5 Amp input range.

The A/CTE and A/CTV series current sensors are fast acting and extremely accurate from 2% or 5% up to 100% of the Full Scale Output depending on the model being ordered. All of the A/CTE and A/CTV series current sensors are factory calibrated using an NIST Traceable standard and shipped with the jumper placed on the largest jumper selectable range.

The power for the A/CTE and A/CTV series current transmitter is induced from the conductor being monitored. This means that no external power supply is necessary for the installation of these sensors.

Product Specifications

Sensor Power	Induced from monitored conductor
Output Voltage	**A/CTE Series:** 0 to 5 VDC **A/CTV Series:** 0 to 10 VDC
Amperage Ranges	0 to 250 Amps (See ordering information)
Accuracy	**A/CTE:** +/- 1.0% (2 to 100% FSO) **A/CTV:** +/- 1.0% (5 to 100% FSO)
Response Time	**A/CTE:** < 100 mS **A/CTV:** < 100 mS
Operating Frequency Range	50 to 600 Hz
Isolation Voltage	2,200 VAC
Max. Sensing Current Voltage	600 VAC
Aperture (Hole) Size	0.75", Accepts up to 350 MCM Cables
DIN Rail Size	35mm
Operating Temperature Range	-15 to 40°C (5 to 104°F)
Operating Humidity Range	0 to 95% RH, non-condensing
Enclosure Rating	UL94-5VB

Wiring Diagrams available at www.workaci.com/instructions.htm
c0000007rev10.pdf

Current

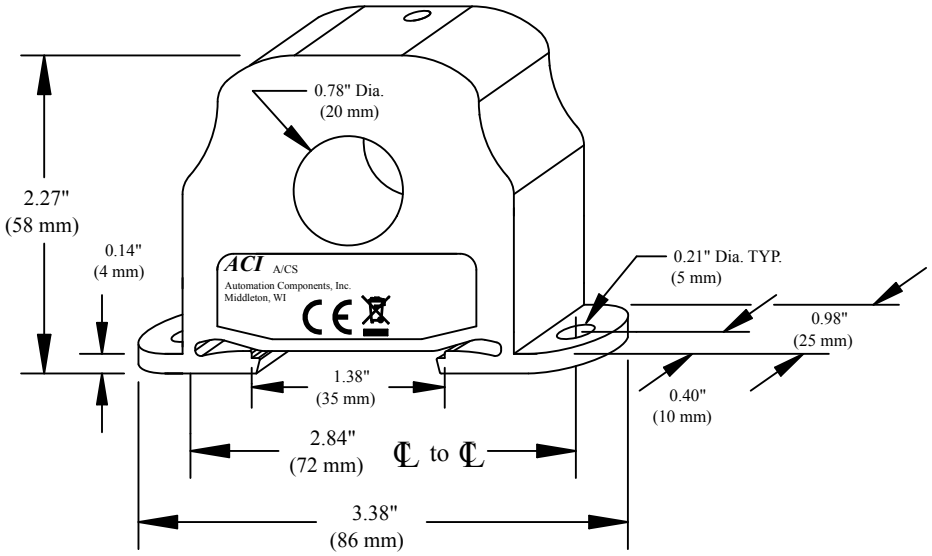
Attributes:
- Fast response time
- Integral 35mm Din-rail mounting flange
- Rated up to 250 Amps
- Limited 5 year warranty
- Induced Power
- UL94-5VB (enclosure rating)

Applications:
- Load Trending Equipment (current monitoring)
- Monitoring Building loads
- Rated for industrial use

Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Dimensions

Solid-Core



Ordering Information

ACI Model #	Description	Jumper Selectable Ranges
A/CTE-50	Solid-Core, 0 to 5 VDC Output	0-10, 0-20, 0-50 Amps
A/CTE-250	Solid-Core, 0 to 5 VDC Output	0-100, 0-200, 0-250 Amps
A/CTV-50	Solid-Core, 0 to 10 VDC Output	0-10, 0-20, 0-50 Amps
A/CTV-250	Solid-Core, 0 to 10 VDC Output	0-100, 0-200, 0-250 Amps

Warning: Not intended to be used in Life & Safety Applications or for use in any hazardous locations.

Product Data

A/SCTE Series
Split-Core 0-5VDC Output Current Sensor

A/SCTV Series
Split-Core 0-10VDC Output Current Sensor

Product Description

The A/SCTE and A/SCTV Series current sensors monitor the current flowing to electrical equipment or buildings. The magnitude of this current is then converted into a linear 0 to 5 VDC or 0 to 10 VDC output signal, which can be monitored by your Building Management, DDC, or PLC controller. All of these sensors have jumper selectable input ranges except for the 0 to 5 Amp input range.

The A/SCTE and A/SCTV series current sensors are fast acting and extremely accurate from 5% to 10% up to 100% of the FSO (Full Scale Output) depending on the model being ordered. All of the A/SCTE and A/SCTV series current sensors are factory calibrated using a NIST Traceable standard and shipped with the jumper placed in the largest jumper selectable range.

The power for the A/SCTE and A/SCTV series current transmitter is induced from the conductor being monitored. This means that no external power supply is necessary for the installation of these sensors.

Product Specifications

Sensor Power	Induced from monitored conductor
Output Voltage	**A/SCTE Series:** 0 to 5 VDC **A/SCTV Series:** 0 to 10 VDC
Amperage Ranges	0 to 250 Amps See ordering information table
Accuracy	**A/SCTE:** +/- 1.0% (5 to 100% FSO) **A/SCTV:** +/- 1.0% (10 to 100% FSO)
Response Time	**A/SCTE:** < 100 mS **A/SCTV:** < 100 mS
Operating Frequency Range	50 to 600 Hz
Isolation Voltage	2,200 VAC
Max. Sensing Current Voltage	600 VAC
Aperture (Hole) Size	0.75", Accepts up to 350 MCM Cables
DIN Rail Size	35mm
Operating Temperature Range	-15 to 40°C (5 to 104°F)
Operating Humidity Range	0 to 95% RH, non-condensing
Enclosure Rating	UL94-5VB

Wiring Diagrams available at www.workaci.com/instructions.htm
C0000008 Rev 12.pdf

Current

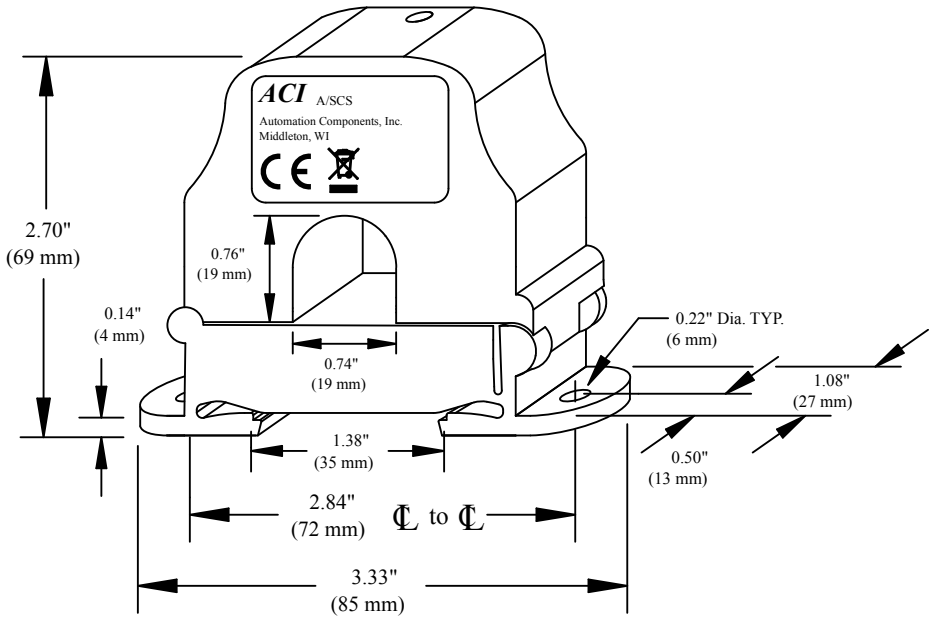
Attributes:
- Split-Core design is suited for retrofit applications
- Integral 35mm Din-rail mounting flange
- Rated up to 250 Amps
- Limited 5 year warranty
- Induced Power
- UL94-5VB (enclosure rating)

Applications:
- Load Trending Equipment (current monitoring)
- Monitoring Building Loads
- Rated for industrial use

Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Dimensions

Split-Core



Ordering Information

ACI Model #	Description	Jumper Selectable Ranges
A/SCTE-50	Split-Core, 0 to 5 VDC Output	0-10, 0-20, 0-50 Amps
A/SCTE-250	Split-Core, 0 to 5 VDC Output	0-100, 0-200, 0-250 Amps
A/SCTV-50	Split-Core, 0 to 10 VDC Output	0-10, 0-20, 0-50 Amps
A/SCTV-250	Split-Core, 0 to 10 VDC Output	0-100, 0-200, 0-250 Amps

Warning: Not intended to be used in Life & Safety Applications or for use in any hazardous locations.

Product Data

A/CO Series

Carbon Monoxide Sensor

Product Description

The A/CO transmitters monitor carbon monoxide (CO) levels in industrial environments. The A/CO transmitters are intended to be used for the continuous monitoring of vehicle exhaust in non-hazardous areas. Guidelines provided by OSHA and the UL2034 STD rating state that current danger levels are 50 ppm on a Time Weighted Average over an 8 hour Period or 35 Minutes at a 200 ppm level. Indoor concentrations above 35 ppm indicate the need for additional ventilation.

The A/CO uses a wide spectrum, long life electrochemical sensor to measure the amount of carbon monoxide in the environment. It is offered with an operating range of 0 to 125 ppm. The carbon monoxide transmitter provides a linear 4 to 20 mA or 2 to 10 VDC output on a 4-wire system when using an AC or DC supply voltage to power the transmitter.

Both the Room and Duct CO transmitters are offered in a standard NEMA 1 rated ABS Polycarbonate plastic enclosure. An optional NEMA 4X watertight and dust proof enclosure is only available with the CO room transmitter. Other options include an LCD display with (2) SPDT Form 1C relays and a buzzer.

Product Specifications

Supply Voltage	+24VDC or 24 VAC Floating or One side ground
Outputs	4-20mA, +2-10VDC, Digital RS-485
Accuracy / Repeatability	+/- 2.5% of Reading / +/- 1.0% of Reading
Operating Range	0 to 125 ppm (standard) / 0-250ppm (max)
Temperature Range	-20° to 40°C (-4° to 104°F)
Operating Humidity	15 to 90%, non-condensing, 0 to 99% Intermittent
Coverage Area	7,500 Sq. Ft. (max)
Indicators	Two line 8 digit Alpha Numberic LCD (standard) (2) Red LED's for Relay Status
Sensor Type	Electrochemical
Supply Current	100mA nominal / 250mA maximum
Response Time	Less than 60 seconds typical for a 90% step change
Mounting Height	4 to 6' above floor (1.5 to 2.0 meters)
Sensor Life Span	2 to 3 years typical (under normal conditions)
Relay Rating	(2) SPDT Form 1C rated @1 Amp dry contact
Buzzer Rating	Rated for 85 dB @ one foot

Wiring Diagrams available at www.workaci.com/instructions.htm
C0000099 Rev 1.pdf

Carbon Monoxide

Attributes:
- Field Configurable
- Addressable RS-485 digital communication
- Two optional SPDT relays and audible alarm
- LCD display
- RoH's Compliant

Applications:
- Parking Garages
- Arenas
- Kitchens
- Laundry Rooms
- Warehouses
- Loading Docks
- Service Garages

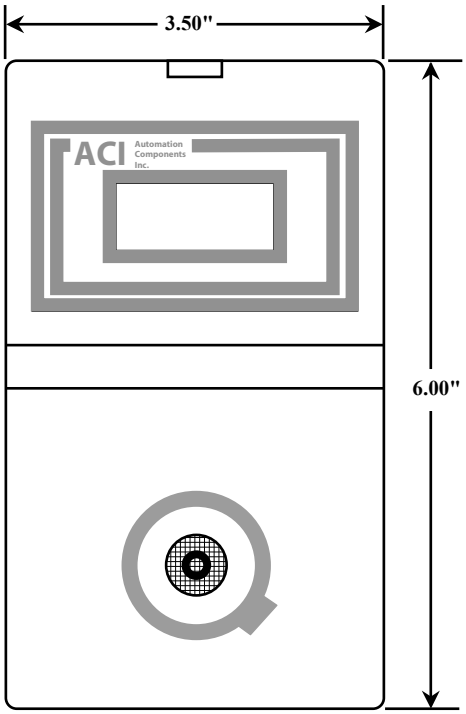
Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Dimensions

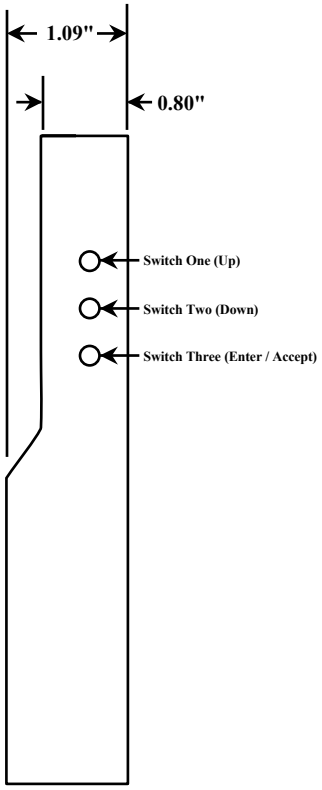
Room

All Dimensions are in Inches

Front



Right Side



Ordering Information

Model

A/CO -[ ]

(R) - Room Configuration
(D) - Duct Configuration w/ Pitot Tube
(R-4X) - Room Configuration in NEMA 4X Housing*
(R-4X-RB) - Room Configuration in NEMA 4X Housing* with relays and buzzer

Display

-[ ]

( ) - No Display (Standard)
(D) - LCD Display, (2) SPDT Form 1C Relays, and Buzzer

*Not available with external LCD

Example: A/CO-R or A/CO-R-D

2305 Pleasant View Rd. Middleton Industrial Park Middleton, WI 53562
PH: (608) 831-2585 FAX: (608) 831-7407

Product Data

A/CO2-010 Series

Carbon Dioxide Sensor
(0 to 10 VDC output)

Product Description

The A/CO2-010 room and duct transmitters monitor the carbon dioxide (CO_2) levels in industrial and office type environments. The concentration of CO_2 is a good indication of the overall indoor air quality (IAQ).

All units come with a 0-10 VDC analog output as well as the patented ABC Logic™ self-calibration system (Automatic Background Calibration). The concentration of CO_2 is measured using a Single Beam Absorption Infrared Diffusion or Flow Through sampling method depending on the mounting configuration.

These units should not be used in environments such as greenhouses, wineries, breweries, or any other applications where industrial sources of CO_2 are present.

The ABC Logic™ software eliminates the need for manual calibration in applications where the indoor CO_2 level drops to outside levels during unoccupied periods (ie. During evening hours). Also the ABC Logic™ will not work properly in applications where the space is left unoccupied for less than 4 hours a day or where there are industrial sources of CO_2 present. Upon initial installation, a warm-up period of more than two minutes is required and up to 5 minutes for full operating accuracy. An optional three color LED is available for CO_2 level indication on the room version only. All room units include a 20K NTC thermistor for monitoring the room temperature.

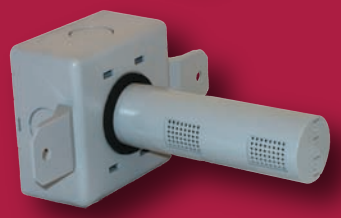
All A/CO2-010 transmitters come with a two year factory warranty.

Product Specifications

Supply Voltage	18 to 30 VAC RMS, 50/60 Hz or 18 to 42 VDC
Power Consumption	**Duct:** Typical, 1.65 W Pek, 0.65 W Avg. @ 42 VDC **Room:** 2.75 VA Peak, 1.75 VA Avg.
Measurement Range	0 to 2000ppm
Output Signal **CO2** **Temperature**	**Duct:** 0 to 10 VDC (100 Ohms output impedance) **Room:** 0 to 10VDC (100 Ohms output impedance) Digital RS-232 communication w/UIP Software 20K NTC Thermistor
Accuracy	**Duct:** +/- 40 ppm +3% of Reading @ 72ºF (22ºC) **Room:** +/- 75 ppm @ 72ºF (22ºC)
Non-Linearity	< 1% of FS @ 72ºF (22ºC)
Stability	< 2% FS over life of sensor (15 Yrs Typical)
Temperature Dependence	0.2% of Full Scale per ºC
Pressure Dependence	0.13% of reading per mm Hg
Response Time	**Duct:** 3 min. typical for 90% Step change **Room:** 3 to 5 min. typical for 90% Step Change
Operating Temp/ RH Range	32 to 122ºF (0 to 50ºC) / 0 to 95%, non-condensing
Sensor Coverage Area	7,500 sq. ft. maximum

Wiring Diagrams available at www.workaci.com/instructions.htm
c0000112rev1.pdf

Carbon Dioxide



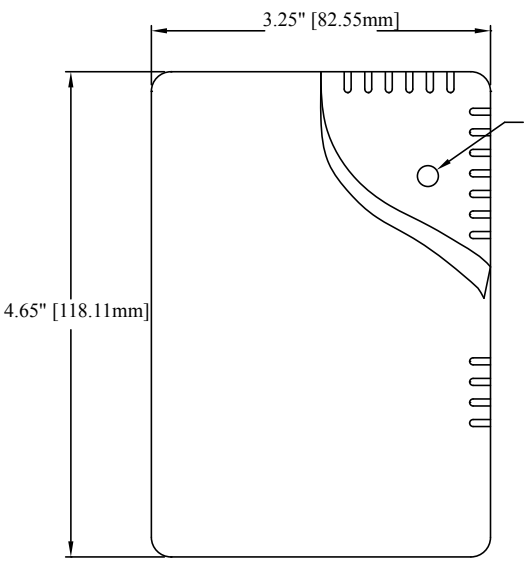
Attributes:
- 0 to 10VDC Output
- No field calibration
- CO_2 Level LED Indication (Room Only)
- 15 year design life
- CE and FCC part 15 Class B
- RoH's and WEEE Compliant

Applications:
- Large Office Buildings
- Schools/Gymnasiums
- Shopping Malls

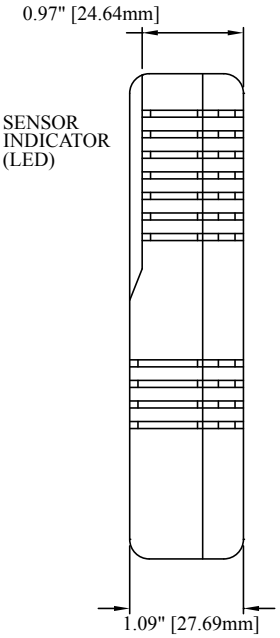
Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Dimensions

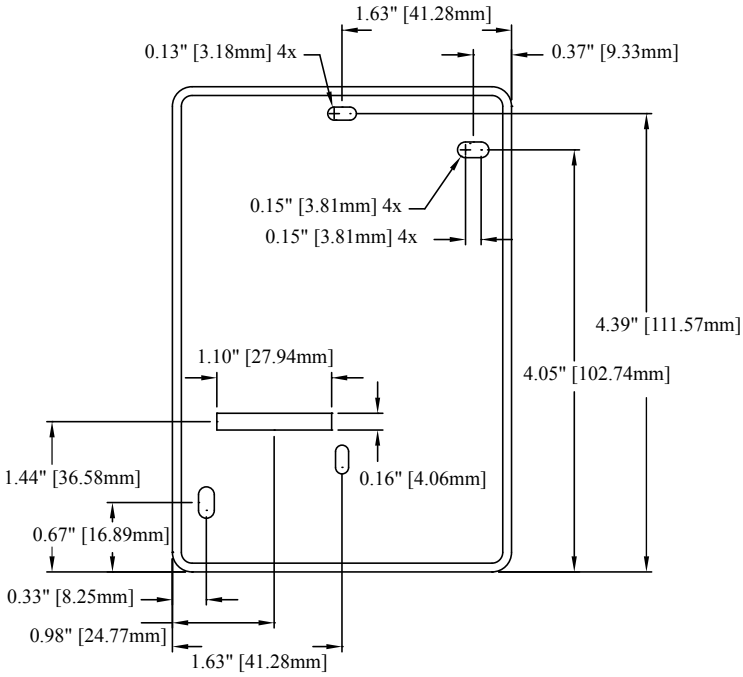
Front View:



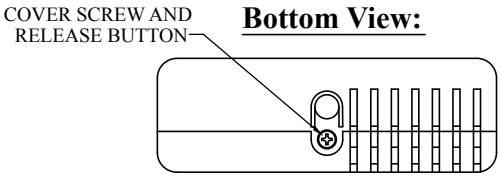
Right Side View:



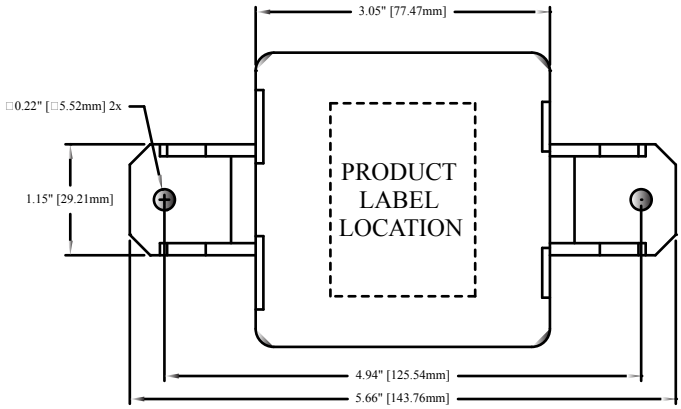
Back Plate, Front View:



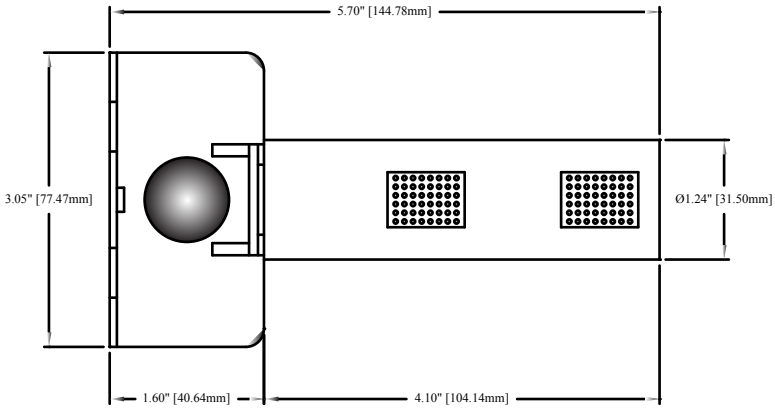
Bottom View:



Top View:



Right Side View:



Ordering Information

	Configuration	Displays
A/CO2-010-R	(Room)	**( )** -No LED Indication (Standard)
		(L) -Green/Yellow/Red LED Indication (Available on Room units only)
A/CO2-010-D	(Duct)	

Example: A/CO2-010-R or A/CO2-010-RL or A/CO2-010-D

2305 Pleasant View Rd. Middleton Industrial Park Middleton, WI 53562
PH: (608) 831-2585 FAX: (608) 831-7407

Product Data

A/CO_2 Series

Carbon Dioxide Sensor
4 to 20 mA
0 to 10 VDC

Product Description

The A/CO_2 transmitters monitor carbon dioxide (CO_2) levels in industrial and living environments from 0 to 10,000 ppm. The concentration of CO_2 is a good indication of the indoor air quality (IAQ). All units come with both a 4-20 mA and 0-10 VDC analog output as well as a relay output with an adjustable setpoint and deadbank (Hysersis). An optional LCD display may be added to the room unit while all the duct configurations come standard with the LCD display.

The concentration of CO_2 is measured using a Single Beam Absorption Infrared sensing method. The CO_2 transmitter is also equipped with a patented ABC Logic™ (Automatic Background Calibration) software. The ABC Logic™ software virtually eliminates the need for manual calibration in applications where the indoor CO_2 level drops to outside levels during unoccupied periods. The ABC Logic™ will not work properly in applications where the space is left unoccupied for less than 4 hours a day or where there are industrial sources of CO_2.

The room transmitter is encased in a white enclosure while the duct sensor is enclosed in a black case that is UL94-5V rated and includes a pitot tube.

All units come with a two year factory warranty.

Product Specifications

Supply Voltage	18 to 30 VAC, 50/60 Hz Half-Wave Rectified +18 to 42 VDC, Polarity Protected
Power Consumption	1.75 VA average power, 2.75 VA peak power
CO_2 Analog Output Signals	4 to 20 mA (RL max = 500 Ohms) 0 to 10 VDC (100 Ohms output impedance)
Accuracy @ 72°F (22°C)	+/- 40 ppm + 3% of reading
Response Time	0 to 90% < 2 minutes
Operating Temperature Range	60 to 90°F (15 to 32°C)
Operating RH Range	0 to 95% RH, non-condensing
CO_2 Measurement Range	0 to 2000 ppm (Factory Set), Adjustable to 10,000 ppm
Digital I/O	RS232 Interface for use with optional PC UIP Kit #2072
Relay Output	N/O or N/C 2A max @ 24VAC contact Rating, Factory Set at 1000 ppm with 50 ppm Hysteresis
Calibration Time	5 Years / Zero ppm with a 50 ppm Hysteresis
Sampling Method	Room: Single Beam Infrared Diffusion
Digital Display	0 to 10,000 ppm (Optional)
Operating Temperature	32 to 122°F (0 to 50°C)

Wiring Diagrams available at www.workaci.com/instructions.htm
C0000113 rev 2.pdf

Carbon Dioxide

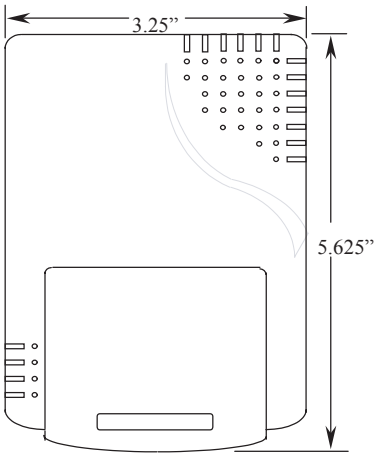
Attributes:
- LCD Display
- Analog and Relay outputs
- Self calibration system
- CE, FCC part 15 class B
  California Energy
  Commission Compliant
- Long life span
  (15 years typical)

Applications:
- Schools
- Large Office Buildings
- Auditoriums/Gymnasiums
- Shopping Malls
- Residential
- Theatres

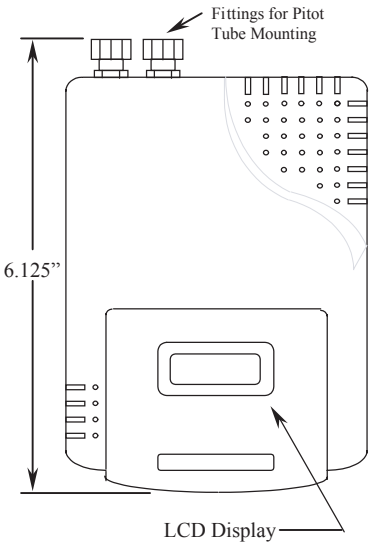
Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Dimensions

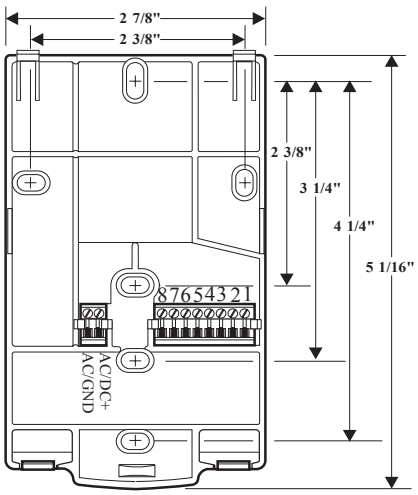
Room Mount



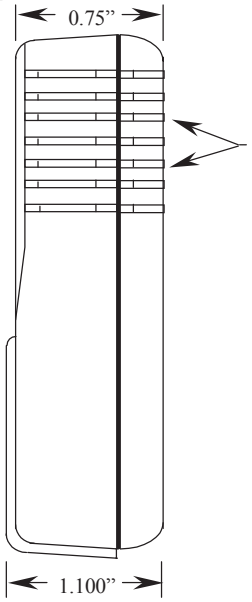
Duct Mount



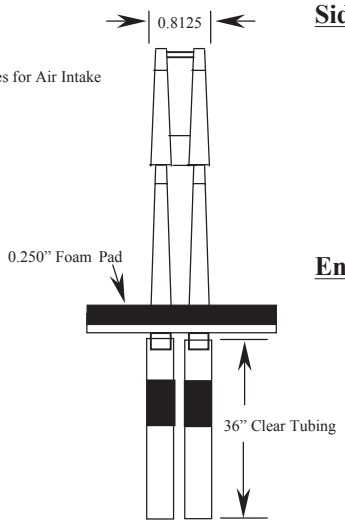
Back Mounting Plate



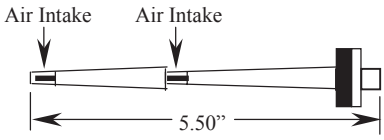
Side View



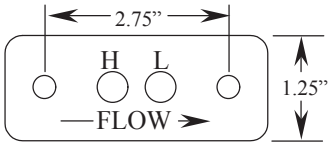
Pitot Tube for Duct



Side View



End View



Ordering Information

Configuration — Display Option (Room Only)

A/CO2-R (Room Mount) **- [ ]**

( )- No Display (Standard)
(D)- LCD Display (Optional)

A/CO2-D (Duct Mount with Display)

A/CO2-Software (Calibration Software)
(UIP Kit #2072)

2305 Pleasant View Rd. Middleton Industrial Park Middleton, WI 53562
PH: (608) 831-2585 FAX: (608) 831-7407

Product Data

A/CO2-T Series

Carbon Dioxide Sensors with Temperature Sensor

Product Description

The A/CO_2-T transmitters monitor both the temperature and carbon dioxide (CO_2) levels in industrial and living environments. The concentration of CO_2 is a good indication of the indoor air quality (IAQ).

All units come with both a 4-20 mA and 0-10 VDC analog output. A resistive type temperature sensor is available with options including Override, Setpoint, and RJ-14 Communication Jack. By combining both the temperature and CO_2 sensors in one package, installation and maintenance is greatly simplified. The concentration of CO_2 is measured using a Single Beam Absorption Infrared Diffusion sampling method. The CO_2 transmitter is also equipped with a patented ABC Logic™ (Automatic Background Calibration) software. The ABC Logic™ software virtually eliminates the need for manual calibration in applications where the indoor CO_2 level drops to outside levels during unoccupied periods. The ABC Logic™ will not work properly in applications where the space is left unoccupied for less than 4 hours per day or where there are industrial sources of carbon dioxide. Upon initial installation, a warm up period of more than 2 minutes is required to get an accurate reading.

The A/CO_2-T series carbon dioxide transmitters are only offered in room configurations. The room transmitter will mount directly to a standard 2" x 4" junction box and is encased in a beige enclosure. All units come with a two year warranty.

Product Specifications

Supply Voltage	18 to 30 VAC, 50/60 Hz Half-Wave Rectified +18 to 42 VDC, Polarity Protected
Power Consumption	1.75 VA average power, 3.25 VA peak power
CO_2 Measurement Range	0 to 2000 ppm
CO_2 Output Signal	4 to 20 mA (RL max=500 Ohms) 0 to 10 VDC (source 100 mA, Sink 10 mA)
Accuracy @ 72°F (22°C)	+/- 100 ppm or +/- 7% whichever is greater
Stability	< 2% of FS over 15 years, Typical
Response Time	0 to 90% < 2 minutes
Operating RH Range	0% to 95% RH, non-condensing
Sensor Life	15 Years Typical
Operating Temperature Range	59 to 90°F (15 to 32°C)
Resistive Temperature Sensor	See Ordering Information on back
"Night Setback" Override	Shorts the temperature when depressed
Setpoint Option	See ordering Information on back
Agency Approvals	CE, FCC Port 15 Class B, CA Energy Commission

Wiring Diagrams available at www.workaci.com/instructions.htm
C0000114 Rev. 2.pdf

CO_2 w/ Temp

Attributes:

- **No Field Calibration (Self calibration)**
- **"After Hours" override option (Standard)**
- **RJ14 Communication Jack (Standard)**
- **CO2 and Temp in one Enclosure**
- **Setpoint option (Optional)**

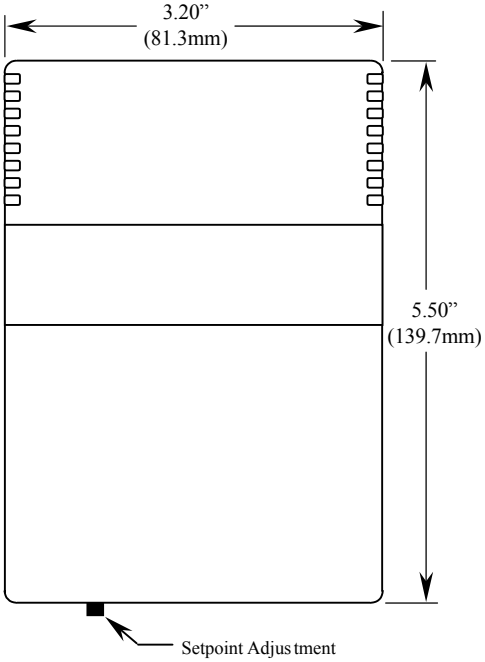
Applications:

- **Office Buildings**
- **Schools**
- **Shopping Malls**
- **Auditoriums/Gymnasiums**
- **Restaurants**

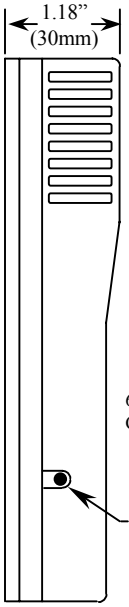
Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Dimensions

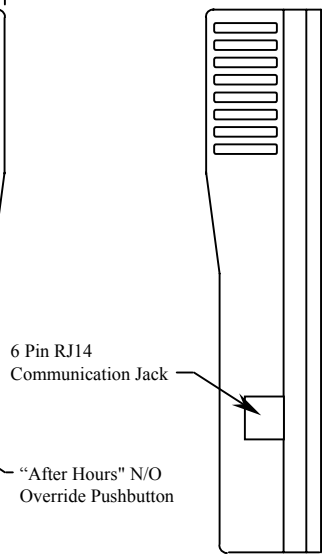
Front View



Left Side



Right Side



Ordering Information

Configuration
A/CO$_2$-T [ ]

RO-Room with Override and 6 pin RJ12 Jack
RSO-Room with Setpoint, Override and 6 pin RJ12 Jack

Temperature Sensor
-[ ]

100 RTD (385)
1K RTD (385)
1K-NI (Nickle)
1.8K
2K RTD
3K
ASI (3K)
2252
5K
AN (10K-Type III)
CP (10K-Type II)
CSI (10K-CSI)
20K
100K

Setpoint Value
-[ ]

400 Ohm
1K
2K
3K
5K
8.5K
10K
20K
100K

***All Optional Series Offset Resistors must be Installed at the controller.**

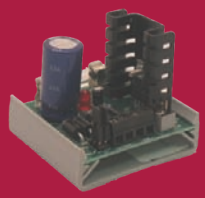
2305 Pleasant View Rd. Middleton Industrial Park Middleton, WI 53562
PH: (608) 831-2585 FAX: (608) 831-7407

Product Data

A/PS1.5

1.5 Amp Power Supply

Power Supply



Product Description

The A/PS1.5 adjustable power supply is a low cost, dependable external power supply. This unit will accept an input of up to 28 VAC or 35 VDC, and provides an adjustable 1.2 to 27 VDC output. The A/PS1.5 will supply 1.5A continuous when (Vin- Vout < 15V). The maximum power dissipation is internally limited to 20W.

All A/PS1.5's are jumper selectable between Half-Wave and Full-Wave and are factory set in the Half-Wave mode. If a Full-Wave power supply is needed, change the two on board selection jumpers. When using the power supply in the Full-Wave mode, a grounded DC minus terminal and a grounded 24 VAC input transformer will blow the unit's fuse.

The A/PS1.5 also features a potentiometer adjustment, auto reset thermal protection, and LED power indication. This unit is available in a convenient snap track mount configuration along with a two year factory warranty. Please contact ACI for more information regarding the A/PS1.5 adjustable power supplies.

Attributes:

- **Half and Full-Wave jumper selectable**
- **Adjustable Voltage output**
- **1.5A @ 24VDC**
- **Snap Track Mountable**

Applications:

- **Whenever a DC power source is not available**

Product Specifications

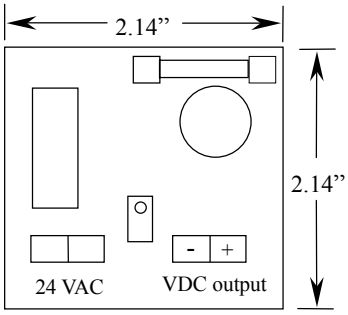
Supply Voltage	Regulated +30 to 35 VDC or 22 to 28 VAC
Output Voltage	Adjustable from +1.2 to 27 VDC
Current Output	1.5A max
Overload Protection	Internally Regulated Thermal Shutdown Fuse Protected for ground loop protection
Power Dissipation	20 Watts Max.
Operating Humidity Range	0 to 95% non-condensing
Operating Temperature Range	30 to 185°F (0 to 70°C)

Wiring Diagrams available at www.workaci.com/instructions.htm
c0000123rev1.pdf

Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Dimensions

All Dimensions are in Inches



Ordering Information

A/PS1.5

Example: A/PS1.5

2305 Pleasant View Rd. Middleton Industrial Park Middleton, WI 53562
PH: (608) 831-2585 FAX: (608) 831-7407

Product Data

A/LLS
A/LLS-T

Light Level Sensors and Transmitter

Product Description

The light level sensor and transmitter is to be used for applications such as turning on or off indoor or outdoor lighting based upon the amount of available light. These sensors are not to be used in applications such as green houses where the actual amount of light is monitored. This unit is mounted in either the end of a waterproof conduit box or as a snap track mount.

The A/LLS has a resistance in darkness in excess of 1M ohm and a resistance in bright light of less than 1.5K ohm. The A/LLS-T incorporates a transmitter with the sensor to produce a non-linear 4-20 mA output signal. The A/LLS-T is calibrated for 4 mA in darkness and 20 mA in bright Light.

Product Specifications

Supply Voltage	+24 to 35 VDC
Input Impedance	150K Ohms
2 Foot Candle Resistance	17K Ohms
Output	LLS - See Resistance Graph LLS-T - 4 to 20 mA (non-Linear)
Operating Temp. Range	-40 to 70ºC (-40 to 158ºF)
Maximum Current Draw	22mA
Operating RH Range	0-95% RH, non-condensing

Wiring Diagrams available at www.workaci.com/instructions.htm
C0000124 Rev. 2.pdf

Light Level

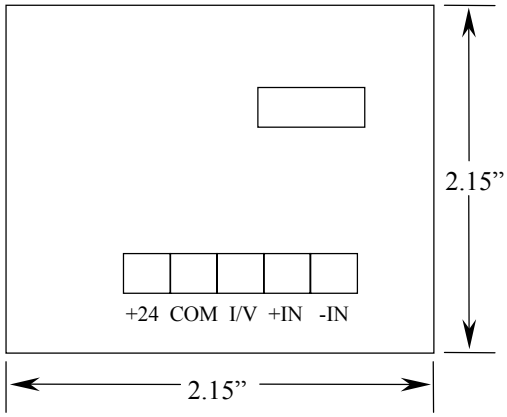
Attributes:
- Indoor and Outdoor ranges available
- NEMA 3R weatherproof enclosure for all transmitters

Applications:
- Illuminated Outdoor Signs
- Outdoor Lighting
- Security Lighting

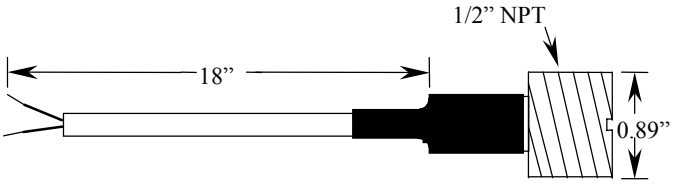
Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Dimensions

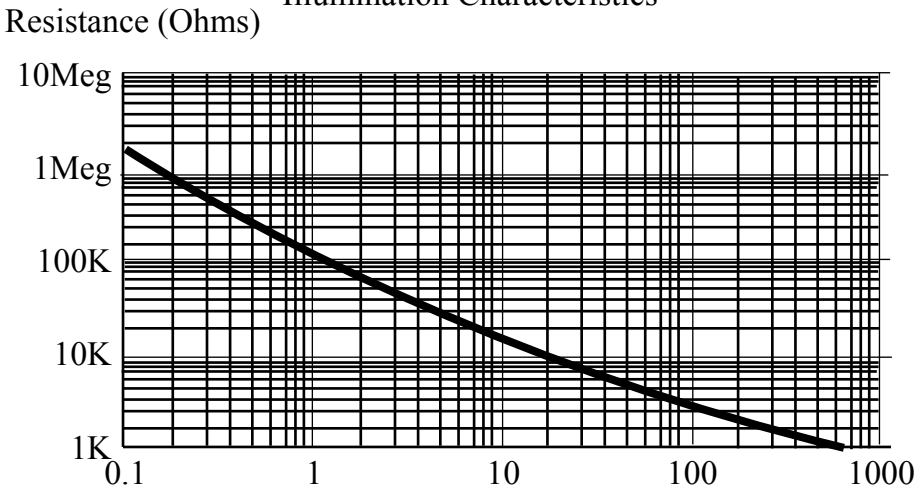
ACI/LLS-T



ACI/LLS



Typical Resistance vs.
Illumination Characteristics



Ordering Information

Model#
A/ -[ ]

LLS
LLS-T (0 to 100 Foot Candles) Indoor Lighting
LLS-T (0 to 500 Foot Candles) Outdoor Lighting

Enclosure
-[ ]

( ) - No Enclosure (standard)
(BB) - Bell Box (NEMA 3R)
This option is for sensors only the Transmitter comes standard with the Bell Box option

Example: A/LLS or A/LLS-T (0 to 100 Foot Candles) or A/LLS-BB

2305 Pleasant View Rd. Middleton Industrial Park Middleton, WI 53562
PH: (608) 831-2585 FAX: (608) 831-7407

Product Data

A/FS Series
Freeze Stats

Product Description

The A/FS Series controllers are Low Limit controllers also known as "Freeze Stats". These devices were designed for use on HVAC equipment requiring low-temperature cutout protection and in all ducts to prevent the cooling coils from freezing. The Freeze Stats should be mounted between the heating and cooling coils on the supply side of the fan unit.

The A/FS-1, A/FS-3 and A/FS-5 are available in both manual and automatic reset versions. These units are responsive to the lowest temperature sensed along any 1 foot section of the sensing element. They also have (one) set of SPDT contacts with an adjustable setpoint range of 14 to 54ºF. The sensing element is made up of a vapor-filled, copper capillary tube measuring 5/64 inches in diameter (2mm) with an overall length of 6, 10, and 20 feet depending on the model number being ordered.

The A/FS-2, A/FS-4, and A/FS-6 are available in both manual and automatic reset versions. These units are responsive to the lowest temperature sensed along any 1 foot section of the sensing element. The A/FS-2, A/FS-4, and A/FS-6 model number each have (2) sets of SPDT contacts with an adjustable setpoint range of 14 to 54ºF. The sensing element is made up of a vapor-filled, copper capillary tube measuring 5/64 inches (2mm) in diameter with an overall length of 6, 10, or 20 feet depending on the model number being ordered.

Product Specifications

Sensing Element	Vapor Filled, Copper Capillary Tube
Output	A/FS-1, A/FS-3, A/FS-5 one SPDT Form 1C Relay A/FS-2, A/FS-4, A/FS-6 two SPDT Form 1C Relays
Contact Rating	250 VAC, 15 (8) A
Setpoint Range	14 to 54ºF (-10 to 12 ºC) Field Adj.
Setpoint Differential	1.8ºF (1ºC), Fixed for Auto Reset
Setpoint Safety Lock	35.6ºF (Factory Set), Field Adj.
Housing Rating	NEMA 1 (IP40)
Operating Temp. Range	14 to 194ºF (-10 to 65 C)
Operating Humidity Range	0 to 95%, non-condensing
Agency Approvals	CE Approved
Environmental Approvals	RoH's Compliant

Wiring Diagrams available at www.workaci.com/instructions.htm
C0000094 Rev 3.pdf

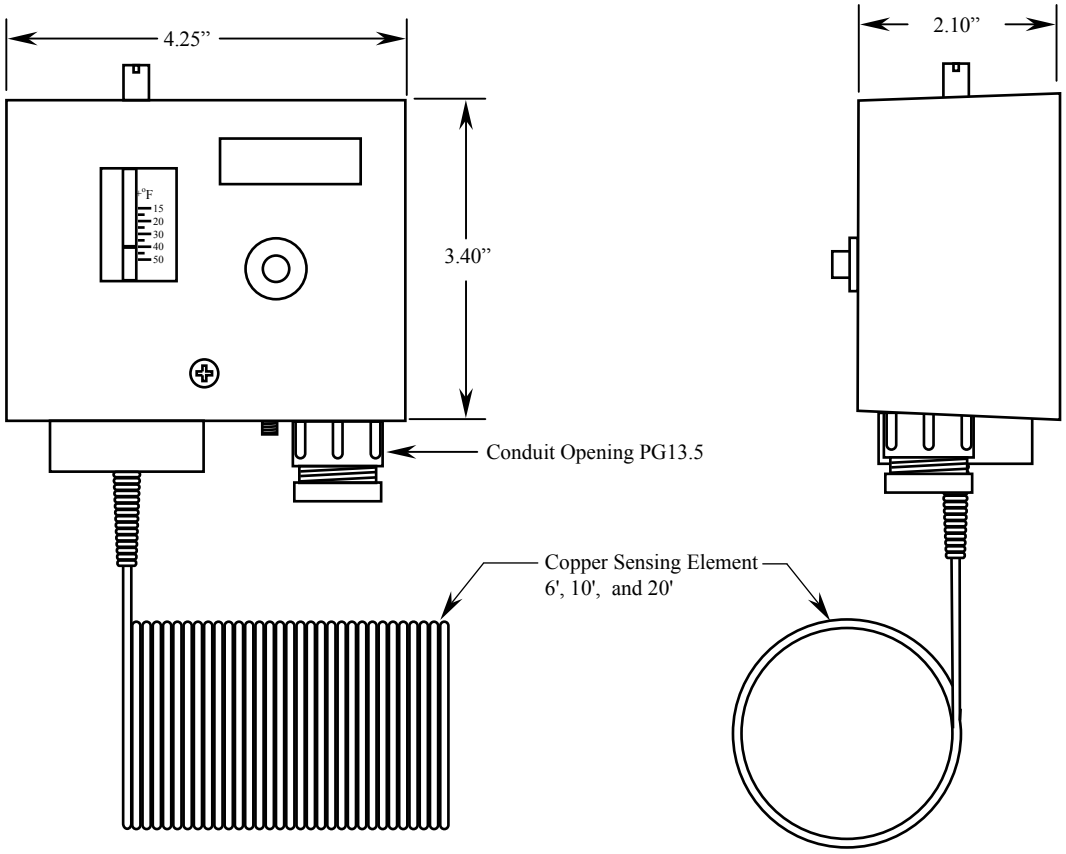
Freeze Stats

Attributes:
- 6, 10 and 20 foot lengths
- Adjustable Setpoint
- Manual Reset Versions
- Automatic Reset Versions
- CE Approval
- RoH's Compliant

Applications:
- Low Limit temperature protection for HVAC equipment and cooling coils

Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Dimensions



Ordering Information

Model#
A / [ ]

FS-1 ((1 set) SPDT Contacts, 20ft capillary, Manual reset)
FS-1A ((1 set) SPDT Contacts, 20ft capillary, Auto reset)
FS-2 ((2 sets) SPDT Contacts, 20ft capillary, Manual reset)
FS-2A ((2 sets) SPDT Contacts, 20ft capillary, Auto reset)
FS-3 ((1 set) SPDT Contacts, 10ft capillary, Manual reset)
FS-3A ((1 set) SPDT Contacts, 10ft capillary, Auto reset)
FS-4 ((2 sets) SPDT Contacts, 10ft capillary, Manual reset)
FS-4A ((2 sets) SPDT Contacts, 10ft capillary, Auto reset)
FS-5 ((1 set) SPDT Contacts, 6ft capillary, Manual reset)
FS-5A ((1 set) SPDT Contacts, 6ft capillary, Auto reset)
FS-6 ((2 sets) SPDT Contacts, 6ft capillary, Manual reset)
FS-6A ((2 sets) SPDT Contacts, 6ft capillary, Auto reset)
DBZ-05 Capillary Mounting Clips (Set of 6)
DBZ-07 Housing Mounting Bracket

Example: A/FS1 or A/FS-1A or A/FS-2 or A/FS-2A

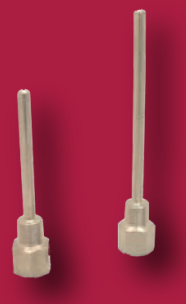
2305 Pleasant View Rd. Middleton Industrial Park Middleton, WI 53562
PH: (608) 831-2585 FAX: (608) 831-7407

Product Data

A/2.5”
A/4”
A/6”

Two Part Thermowells

Thermal Grease



Product Description

The A/2.5", 4", and 6" thermowells are made of 300 series stainless steel to ensure long lasting reliability and stability. These units are milled to high tolerances, so there is no gap between the thermowell sheath and the probe, to provide maximum heat transfer.

The A/2.5", 4", and 6" thermowells are a two part thermowell. The sheath is set into the nut (see dimensional drawing on back) and then welded with an automated tig weld for consistency and from its own material to provide the strongest possible joint.

If preferred, thermal grease may be used with all of the thermowells. ACI offers the thermal grease in both a silicone and non-silicone compound. The silicone compound is available in a 8 oz. tube and the non-silicone compound is available in a 2 oz. tube.

For more information on specifications and pricing, please contact ACI.

Attributes:

- Compatible with a wide range of medias
- Economical
- RoH’s Compliant

Applications:

- Hot & Chilled Water Systems
- Cooling Towers
- Process Control
- Boilers

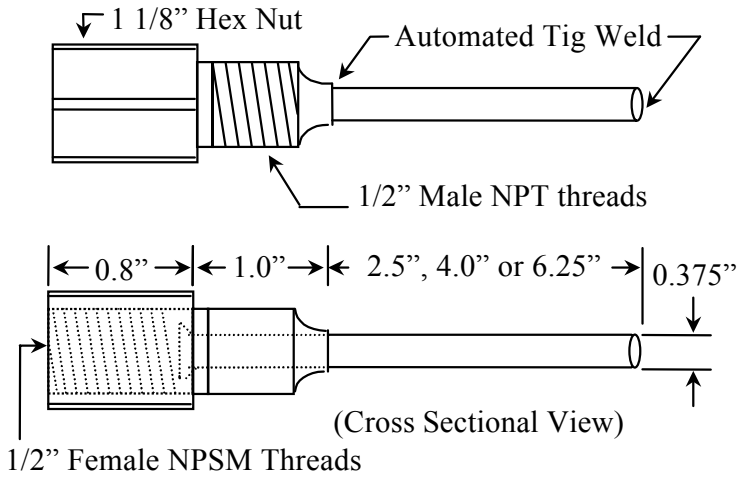
Product Specifications

Material **Tube**	304 Series Stainless Steel	
Process Thread	1/2” NPT (National Pipe Tapor)	
Instrument Thread	1/2” NPS (National Pipe Straight)	
Pressure vs. Temp Ratings	Max PSI 1600 1500 1400 1200 1000 900 700	°F 70 200 400 600 800 1000 1200
Environmental Compliance	RoH’s Compliant	

Wiring Diagrams available at www.workaci.com/instructions.htm
C0000125 Rev 2.pdf

Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

Dimensions



*Note: All of our standard thermowells have a 0.260" bore and will accept probe diameters up to 0.250" diameter

Ordering Information

Model#

A/ [ ]

2.5" (2.5" Thermowell)
4" (4" Thermowell)
6" (6" Thermowell)
SG (-40 - 400°F) Silicone Grease
NSG (-40 - 392°F) Non-Silicone Grease

Example: A/2.5" or A/4" or A/6" or A/SG or A/NSG

2305 Pleasant View Rd. Middleton Industrial Park Middleton, WI 53562
PH: (608) 831-2585 FAX: (608) 831-7407

"First in Sensor Quality"

Product Data

A/Locking Cover

A/PS

Plexi Shield

A/WS

Weather Station

Product Description

ACI has some options when your application calls for additional security or protection.

The A/Locking Cover can be used to protect any ACI Room mounted enclosure from physical damage or tampering. It comes with a clear vented cover and two keys.

The A/PS is a clear lucite shield that is designed to cover a wall thermostat or temperature sensor. Not only will it protect the thermostat or sensor, but it can also be used to stabilize the temperature in rooms where large fans or extreme environmental changes are present.

The A/WS is designed to provide protection in both indoor and outdoor environments. It will provide protection from rain, sleet, snow, or against dripping water. It is made of 16 gauge G-90 grade galvanized steel and is coated with white enamel.

Wiring Diagrams available at www.workaci.com/instructions.htm

Shields/Covers

Locking Cover

Plexi Shield

Weather Station

Attributes:

- **Offer varying levels of protection against vandalism, tampering, and the elements.**

Applications:

- **Schools, Universities, and various commercial bldgs.**

Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

This page left intentionally blank

Product Data

A/Mounting Plate
A/Mounting Plate-10

Product Description

The A/Mounting Plate may be used to mount any ACI Room enclosure over a much larger electrical enclosure or hole in the wall. The A/Mounting Plate 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. (Dimensions 7" long X 5.25" wide)

The A/Mounting Plate-10 is slightly larger than the standard Mounting Plate and is made from 20 Gauge Commercial Steel. It is painted to match the color of the ACI Room enclosure. (Dimensions 7.875” long X 5.875” wide)

Accessories

Mounting Plate

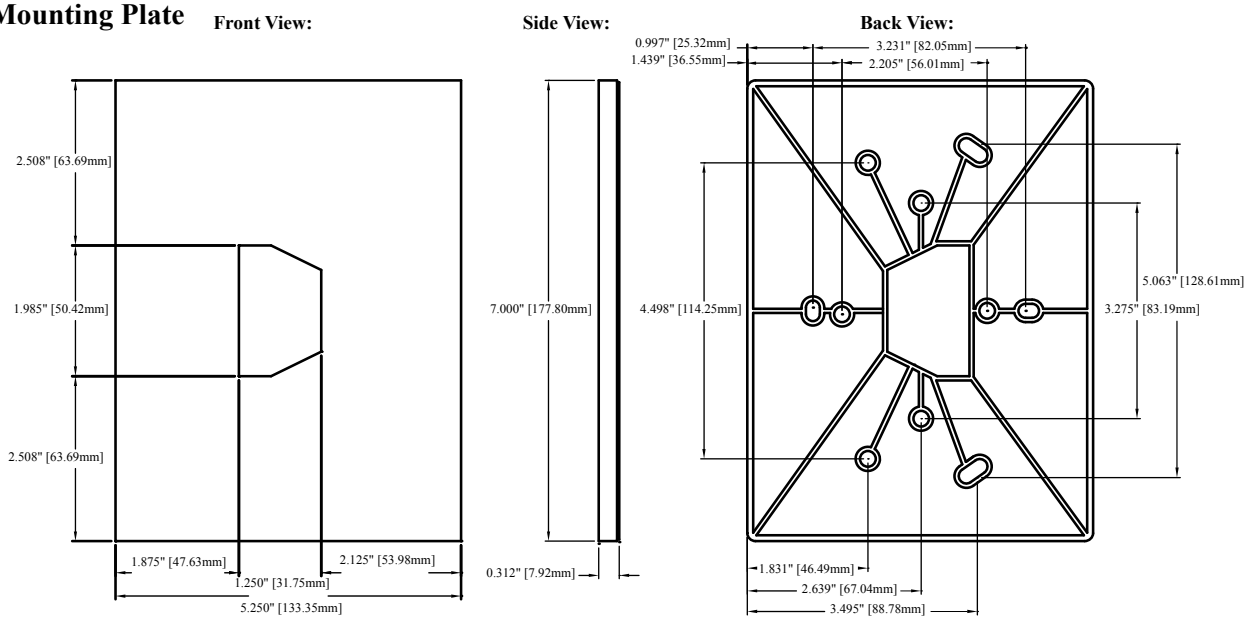
Mounting Plate-10

Automation Components, Inc.
2305 Pleasant View Rd.
Middleton, WI 53562
PH: (608) 831-2585
FAX: (608) 831-7407

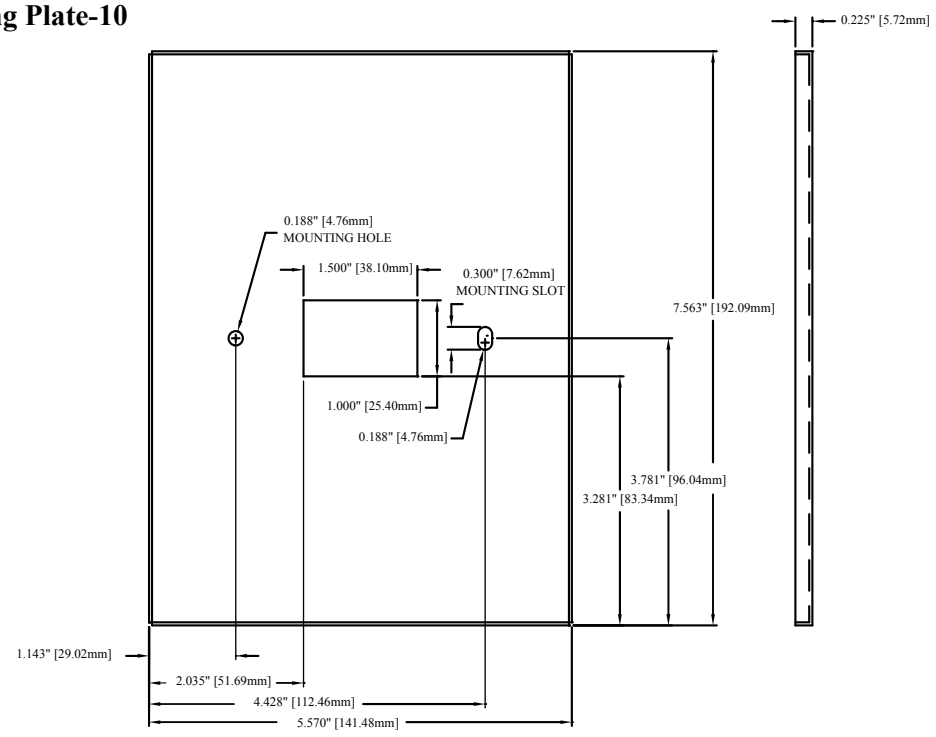
Wiring Diagrams available at www.workaci.com/instructions.htm
C0000128 Rev 2.pdf

Dimensions

A/Mounting Plate



A/Mounting Plate-10

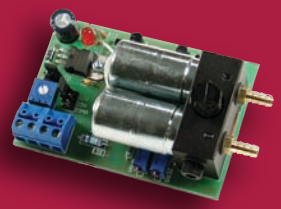


Ordering Information

A/Mounting Plate
A/Mounting Plate-10

2305 Pleasant View Rd. Middleton Industrial Park Middleton, WI 53562
PH: (608) 831-2585 FAX: (608) 831-7407

Interface Devices

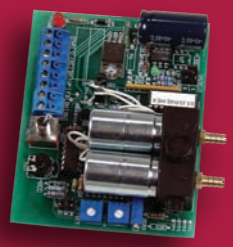


Analog Input to Pneumatic Output

The A/PXP converts an analog input signal into a proportional pneumatic output ranging from 0 to 15 psig. The A/PXP will automatically modulate its control valve to control the branch line pressure to the selected setpoint as determined by the input signal. The input signal may be either a 0 to 5, 0 to 10, 0 to 15 VDC or a 4 to 20 mA signal.

Analog Input to Pneumatic Output

The A/EPC converts an analog input signal into a proportional pneumatic output. The output pressure ranges are jumper selectable for 0-10, 0-15 or 0-20 psi and are adjustable in all ranges. The EPC will automatically modulate its control valve to control the branch line pressure to the selected setpoint as determined by the input signal. The input signal may be a 0 to 5, 0 to 10, 0 to 15VDC, or a 4 to 20 mA signal.



PWM Input to Pneumatic Output

The A/EPW converts a pulse, phase cut, or digital PWM signal into a proportional pneumatic signal ranging from 0 to 20 psig. The pneumatic output is proportional to the signal input, either direct or reverse acting. The A/EPW offers four jumper-selectable input timing ranges. Output pressure ranges are jumper-shunt selectable for 0 to 10, 0 to 15 or 0 to 20 psig, and adjustable in all ranges.

Pneumatic Sensor to Current Output

The A/PTP will accept either a 0 to -7.5, 3 to 15, or 3 to 30 psig pneumatic input and convert it into a proportional 4 to 20 mA current output. By adding one of the supplied external load resistors, the A/PTP will output a proportional 1 to 5, 2 to 10, or 3 to 15 VDC signal. It is a positive current output device that is fully temperature compensated.

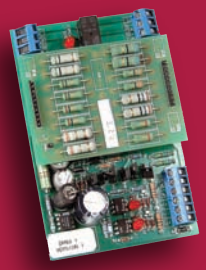
Floating Point Input to Pneumatic Output

The A/EFP converts a floating point signal into a proportional pneumatic signal ranging from 0-20 psig. The pneumatic output is proportional to the signal input. The A/EFP has a manual override switch with terminal strip contacts to indicate its status and a potentiometer to vary the pneumatic output.

Interface Devices

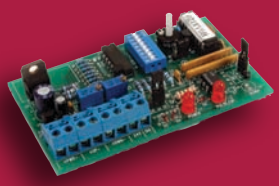
Analog Rescaling Modules

The A/ARM is an analog re-scaling module, which will accept any analog voltage or current input signal and re-scales it to another voltage or current output range. Several preset ranges are jumper selectable. Trimmer potentiometers can then be used to attenuate an input signal up to 100% or to make fine adjustments on output ranges for maximum flexibility.



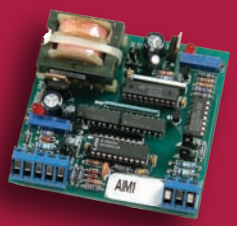
Pulse/Analog/Floating Pt Input to Resistance Output

The A/DRN Series modules accept an Analog, Pulse, Floating Point, or Tri-state input signal and converts it into a proportional resistance output. The output directly replaces a variable resistance controller and simulates the action of a potentiometer.



PWM Input to Analog Output

The A/PTA converts a single pulse-width modulated input to an analog current or voltage output. There are two LED indicators that designate power and signal. A timed contact or solid state closure from the controlling microprocessor controller is converted to a linear analog output signal with 256 steps of resolution.



Analog Isolation Module

The A/AIM1 optically isolates the analog input signal from its output signal. The A/AIM1 is factory calibrated having an output that is linear and proportional (1:1 ratio) to the input signal. Inputs of 0 to 5 or 0 to 10 volts, and 0 to 20 mA are available. The A/AIM1 isolates analog inputs up to 600 VAC or 1500 VDC.

Analog Input to Relay Output Modules

The A/AAR controls two “Form C” 10A relays with a single analog voltage or current input. Analog input ranges available are 0 to 12 VDC, 0 to 24 VDC, or a 0 to 20mA.

Price List

List Pricing from
Automation Components, Inc.

Effective June 1st 2008

Model No.	List
LCD Indicators	
A/LCD-R 4 to 20 mA Loop Powered Display	$105.00
-LCD 8 to 35 VDC/24 VAC Display add on	$105.00
A/TUC-R Microprocessor LCD Display	Consult Factory
A/TUCH-R Microprocessor LCD Display	Consult Factory
A/FAN LCD-R LCD Display w/ 4 Speed Switch	Consult Factory
-TI Thermometer Indicator add on	$18.00
100 Ohm Platinum Resistance Temperature Detectors (PRTD)	
A/100-2w-R Room Sensor	$34.00
A/100-2w-RS Room w/ Setpoint	$42.00
A/100-2w-RO Room w/ Override	$42.00
A/100-2w-RSO Room w/ Setpoint & Override	$50.50
A/100-2w-RSO-RJ11 Room w/ Set, O/R & RJ11	$60.00
-(DF) or -(DC) LCD Can be added to above sensors	$105.00
A/100-2w-D-( ) *Duct (**4", 8", 12", 18"**)	$36.50
A/100-2w-I-( ) *Immersion (**2", 4", 6"**)	$61.50
A/100-2w-S *Strap-On	$42.00
A/100-2w-O Outdoor Air	$43.25
A/100-2w-W Raw	$26.00
A/100-3w-A-( ) *Averaging (**12', 24'**) Only available in 3 Wire	$160.00
A/100-2w-RA-18" *Rigid Averaging (**18", 24", 36**")	$150.00
A/100-2w-SP Stainless Plate	$34.00
A/100-2w-BP Bullet Probe	$28.00
A/100-2w-DO-( ) Duct without Box (**4", 8", 12", 18"**)	$33.00
A/100-2w-BBS Brass Button Sensor	$73.00
A/100-2w-SBS Stainless Button Sensor	$78.00
These sensors are also available in a 3 wire configuration	
1000 Ohm Platinum Resistance Temperature Detectors (PRTD)	
A/1K-2w-R Room	$38.00
A/1K-2w-RS Room w/ Setpoint	$46.00
A/1K-2w-RO Room w/ Override	$46.00
A/1K-2w-RSO Room w/ Setpoint & Override	$52.50
A/1K-2w-RSO-RJ11 Room w/ Set, O/R & RJ11	$62.00
-(DF) or -(DC) LCD Can be added to above sensors	$105.00
A/1K-2w-D-( ) *Duct (**4", 8", 12", 18"**)	$42.00
A/1K-2w-I-( ) *Immersion (**2", 4", 6"**)	$67.00
A/1K-2w-S *Strap-On	$46.00
A/1K-2w-O Outdoor Air	$47.00
A/1K-2w-W Raw	$29.00
A/1K-3w-A-( ) *Averaging (**12', 24'**) Only available in 3 Wire	$180.00
A/1K-2w-RA-( ) *Rigid Averaging (**18", 24", 36"**)	$170.00
A/1K-2w-SP Stainless Plate	$38.00
A/1K-2w-BP Bullet Probe	$32.00
A/1K-2w-DO-( ) Duct without Box (**4", 8", 12", 18"**)	$37.00
A/1K-2w-BBS Brass Button Sensor	$76.00
A/1K-2w-SBS Stainless Button Sensor	$81.00
These sensors are also available in a 3 wire configuration	

*** Add $5.00 for Aluminum Weatherproof NEMA 3R Enclosure (Not available for strap-on configurations)**
*** Add $10.00 for Polycarbonate NEMA 4X Enclosure**

Price List

List Pricing from
Automation Components, Inc.

Effective June 1st 2008

Model No.	List
100 Ohm Cryogenic Platinum Resistance Temperature Detectors (PRTD)	
A/100-LT-3w-D-( ) *Duct (**4", 8", 12", 18"**)	$120.00
A/100-LT-3w-I-( ) *Immersion (**2", 4", 6"**)	$150.00
A/100-LT-3w-RP *Remote Probe	$120.00
A/100-LT-3w-O) Outdoor Air	$130.00
1000 Ohm Cryogenic Platinum Resistance Temperature Detectors (PRTD)	
A/1K-LT-3w-D-( ) *Duct (**4", 8", 12", 18"**)	$124.00
A/1K-LT-3w-I-( ) *Immersion (**2", 4", 6"**)	$154.00
A/1K-LT-3w-RP *Remote Probe	$124.00
A/1K-LT-3w-O Outdoor Air	$134.00
100 Ohm High Temperature Platinum Resistance Temperature Detectors (PRTD)	
A/100-HT-3w-D-( ) *Duct (**4", 8", 12", 18"**)	$125.00
A/100-HT-3w-I-( ) *Immersion (**2", 4", 6"**)	$155.00
A/100-HT-3w-RP *Remote Probe	$125.00
1000 Ohm High Temperature Platinum Resistance Temperature Detectors (PRTD)	
A/1K-HT-3w-D-( ) *Duct (**4", 8", 12", 18"**)	$129.00
A/1K-HT-3w-I-( ) *Immersion (**2", 4", 6"**)	$155.00
A/1K-HT-3w-RP *Remote Probe	$129.00
1,000 Ohm Nickel Resistance Temperature Detectors	
A/1K-NI-R Room	$36.00
A/1K-NI-RS Room w/ Setpoint	$44.00
A/1K-NI-RO Room w/ Override	$44.00
A/1K-NI-RSO Room w/ Setpoint & Override	$52.50
A/1K-NI-RSO-RJ11 Room w/ Set,O/R&RJ11	$60.00
-(DF) or -(DC) LCD can be added to above sensors	$105.00
A/1K-NI-D-( ) *Duct (**4", 8", 12", 18"**)	$38.50
A/1K-NI-I-( ) *Immersion (**2", 4", 6"**)	$63.50
A/1K-NI-S *Strap-On	$44.00
A/1K-NI-A-( ) *Averaging (**12', 24'**)	$180.00
A/1K-NI-O Outdoor Air	$45.00
A/1K-NI-W Raw	$32.00
A/1K-NI-RP Remote Probe 6' Leads	$38.00
A/1K-NI-SP Stainless Plate	$38.00
A/1K-NI-BP Bullet Probe	$34.00
A/1K-NI-BBS Brass Button Sensor	$85.00
A/1K-NI-SBS Stainless Button Sensor	$85.00
A/1K-NI-DO-( ) Duct without box (**4", 8", 12"**)	$36.00

*** Add $5.00 for Aluminum Weatherproof NEMA 3R Enclosure (Not available for strap-on configurations)**
*** Add $10.00 for Polycarbonate NEMA 4X Enclosure**

Price List

List Pricing from
Automation Components, Inc.

Effective June 1st 2008

Model No.	List
1,000 Ohm Balco Resistance Temperature Detectors	
A/1K-Balco-R Room	$45.00
A/1K-Balco-RS Room w/ Setpoint	$53.00
A/1K-Balco-RO Room w/ Override	$53.00
A/1K-Balco-RSO Room w/ Setpoint & Override	$59.00
A/1K-Balco-RSO-RJ11 Room w/ Set, O/R & RJ11	$67.50
-(DF) or -(DC) LCD can be added to above sensors	$105.00
A/1K-Balco-D-( ) *Duct (**4", 8", 12", 18"**)	$47.00
A/1K-Balco-I-( ) *Immersion (**2", 4", 6"**)	$75.00
A/1K-Balco-S *Strap-On	$53.00
A/1K-Balco-O Outdoor Air	$55.00
A/1K-Balco-W Raw	$37.00
A/1K-Balco-RP Remote Probe 6' Leads	$46.50
A/1K-Balco-SP Stainless Plate	$46.00
A/1K-Balco-BP Bullet Probe	$41.50
A/1K-Balco-BBS Brass Button Sensor	$85.00
A/1K-Balco-SBS Stainless Button Sensor	$85.00

*** Add $5.00 for Aluminum Weatherproof NEMA 3R Enclosure (Not available for strap-on configurations)**
*** Add $10.00 for Polycarbonate NEMA 4X Enclosure**

Price List

List Pricing from
Automation Components, Inc.

Effective June 1st 2008

"First in Sensor Quality"

Model No.	List

ACI Thermistor Series

Sensor types

AN (10,000 Ohm Type III Thermistor)
1.8K (1.8K Ohm Thermistor)
3K (3K Ohm Thermistor)
20K (20K Ohm Thermistor)
CP (10,000 Ohm Type II Thermistor)
2252 (2,252 Ohm Thermistor)
5K (5K Ohm Thermistor)
100KS (100,000 Ohm Thermistor)

Configurations

A/( )-R (Room Sensors)	$20.00
A/( ) -RS (Room w/ Setpoint)	$28.75
A/( ) -RO (Room w/ Override)	$28.75
A/( )-RSO (Room w/ Setpoint & Override)	$35.00
A/( )-RSO-RJ11 (Room w/ Set, O/R & RJ11)	$44.50
-(DF) or -(DC) LCD can be added to above sensors	$105.00
A/( )-D-( ) *Duct (**4", 8", 12", 18"**)	$27.00
A/( )-I-( ) *Immersion (**2", 4", 6"**)	$52.00
A/( )-S *Strap-On	$28.75
A/( )-O Outdoor Air	$32.00
A/( )-W Raw	$15.75
A/( )-RP Remote Probe	$22.25
A/( )-SP Stainless Plate	$20.00
A/( )-A-8' *Averaging 8 Foot-Copper	$105.00
A/( )-A-12' *Averaging 12 Foot-Copper	$125.00
A/( )-A-24' *Averaging 24 Foot-Copper	$175.00
A/( )-FA-8' *Averaging 8 Foot-Flexible Cable	$105.00
A/( )-FA-12' *Averaging 12 Foot-Flexible Cable	$125.00
A/( )-FA-24' *Averaging 24 Foot-Flexible Cable	$175.00
A/( )-RA-18" *Rigid Averaging 18"	$85.00
A/( )-RA-24" *Rigid Averaging 24"	$90.00
A/( )-RA-36" *Rigid Averaging 36"	$90.00
A/( )-BP) Bullet Probe	$18.50
A/( )-DO-( ) Duct without Box (**4", 8", 12", 18"**)	$24.50
A/( )-BBS Brass Button Sensor	$70.00
A/( )-SBS Stainless Button Sensor	$75.00

Example**: A/AN-D-4"**

*** Add $5.00 for Aluminum Weatherproof NEMA 3R Enclosure (Not available for strap-on configurations)**
*** Add $10.00 for Polycarbonate NEMA 4X Enclosure**

Price List

List Pricing from
Automation Components, Inc.

Effective June 1st 2008

Model No.	List
AD592 & AD592-10K Series Semiconductor Type Sensors	
A/592-R Room	$36.00
A/592-RS Room w/ Setpoint	$43.00
A/592-RO Room w/ Override	$43.00
A/592-RSO Room w/ Setpoint & Override	$51.00
-(DF) or -(DC) LCD can be added to above sensors	$105.00
A/592-D-( ) *Duct (**4", 8", 12", 18"**)	$42.00
A/592-I-( ) *Immersion (**2", 4", 6"**)	$74.00
A/592-S *Strap-On	$43.00
A/592-O Outdoor Air	$46.00
A/592-W Raw	$28.50
A/592-RP Remote Probe	$38.50
A/592-SP Stainless Plate	$36.00
A/592-A-8' *Averaging 8'	$175.00
A/592-A-12' *Averaging 12'	$187.00
A/592-A-24' *Averaging 24'	$300.00
A/592-BP Bullet Probe	$32.00
A/592-DO Duct without Box	$39.50
LM34 Series Semiconductor Type Temperature Sensor	
A/34-R Room	$50.00
A/34-RS Room w/ Setpoint	$58.00
A/34-RO Room w/ Override	$58.00
A/34-RSO Room w/ Setpoint & Override	$64.00
A/34-D-( ) *Duct (**4", 8", 12", 18"**)	$55.00
A/34-I-( ) *Immersion (**2", 4", 6"**)	$80.00
A/34-S *Strap-On	$58.00
A/34-O Outdoor Air	$60.00
A/34-SP Stainless Plate	$50.00
LM334 Series Semiconductor Type Temperature Sensor	
A/334-R Room	$35.00
A/334-RS Room w/ Setpoint	$40.00
A/334-RO Room w/ Override	$40.00
A/334-RSO Room w/ Setpoint & Override	$43.00
A/334-D- ( ) *Duct (**4", 8", 12", 18"**)	$42.00
A/334-I-( ) *Immersion (**2", 4", 6"**)	$67.00
A/334-S *Strap-On	$40.00
A/334-O Outdoor Air	$43.00
A/334-SP Stainless Plate	$35.00

*** Add $5.00 for Aluminum Weatherproof NEMA 3R Enclosure (Not available for strap-on configurations)**
*** Add $10.00 for Polycarbonate NEMA 4X Enclosure**

Price List

List Pricing from
Automation Components, Inc.

Effective June 1st 2008

Model No.	List
100 & 1000 Ohm Temperature Transmitters	
A/TT100-R Room	$90.00
A/TT100-RS Room w/ Setpoint	$96.00
A/TT100-RO Room w/ Override	$96.00
A/TT100-RSO Room w/ Setpoint & Override	$101.75
-(DF) or -(DC) LCD can be added to above sensors	$105.00
A/TT100-D-( ) *Duct (**4", 8", 12", 18"**)	$97.20
A/TT100-I-( ) *Immersion (**2", 4", 6"**)	$122.20
A/TT100-S *Strap-On	$97.20
A/TT100-O Outdoor Air	$107.50
A/TT100-A-( ) *Averaging (**12', 24'**)	$231.25
A/TT100-RA-( ) *Rigid Averaging (**18" 24", 36"**)	$221.25
A/TT100-SP Stainless Plate	$91.00
A/TT1K-R Room	$96.50
A/TT1K-RS Room w/ Setpoint	$102.50
A/TT1K-RO Room w/ Override	$102.50
A/TT1K-RSO Room w/ Setpoint & Override	$108.25
-(DF) or -(DC) LCD can be added to above sensors	$105.00
A/TT1K-D-( ) *Duct (**4", 8", 12", 18"**)	$103.50
A/TT1K-I-( ) *Immersion (**2", 4", 6"**)	$128.50
A/TT1K-S *Strap-On	$103.50
A/TT1K-O Outdoor Air	$113.50
A/TT1K-A-( ) *Averaging (**12', 24'**)	$256.25
A/TT1K-RA-( ) *Rigid Averaging (**18", 24", 36"**)	$246.25
A/TT1K-SP Stainless Plate	$97.50
100 & 1000 Ohm Matched Temperature Transmitters	
A/TTM100-R Room	$120.00
A/TTM100-RS Room w/ Setpoint	$126.00
A/TTM100-RO Room w/ Override	$126.00
A/TTM100-RSO Room w/ Setpoint & Override	$131.75
-(DF) or -(DC) LCD can be added to above sensors	$105.00
A/TTM100-D-( ) *Duct (**4", 8", 12", 18"**)	$127.20
A/TTM100-I-( ) *Immersion (**2", 4", 6"**)	$152.20
A/TTM100-S *Strap-On	$127.20
A/TTM100-O Outdoor Air	$137.50
A/TTM100-A-( ) *Averaging (**12', 24'**)	$261.25
A/TTM100-RA-( ) *Rigid Averaging (**18", 24", 36"**)	$251.25
A/TTM100-SP Stainless Plate	$121.00
A/TTM1K-R Room	$126.50
A/TTM1K-RS Room w/ Setpoint	$132.50
A/TTM1K-RO Room w/ Override	$132.50
A/TTM1K-RSO Room w/ Setpoint & Override	$138.25
-(DF) or -(DC) LCD can be added to above sensors	$105.00
A/TTM1K-D-( ) *Duct (**4", 8", 12", 18"**)	$133.50
A/TTM1K-I-( ) *Immersion (**2", 4", 6"**)	$158.50
A/TTM1K-S *Strap-On	$133.50
A/TTM1K-O Outdoor Air	$143.50
A/TTM1K-A-( ) *Averaging (**12', 24'**)	$286.25
A/TTM1K-RA-( ) *Rigid Averaging (**18", 24", 36"**)	$276.25
A/TTM1K-SP Stainless Plate	$127.50

*** Add $5.00 for Aluminum Weatherproof NEMA 3R Enclosure (Not available for strap-on configurations)**
*** Add $10.00 for Polycarbonate NEMA 4X Enclosure**

Price List

List Pricing from
Automation Components, Inc.

Effective June 1st 2008

Model No.	List
High Temperature Transmitters	
A/TT100-HT-D-( ) *Duct (**4", 8", 12", 18"**)	$230.00
A/TT100-HT-I-( ) *Immersion (**2", 4", 6"**)	$255.00
A/TT100-HT-RP) *Remote Probe	$230.00
A/TT1K-HT-D-( ) *Duct (**4", 8", 12", 18"**)	$235.00
A/TT1K-HT-I-( ) *Immersion (**2", 4", 6"**)	$260.00
A/TT1K-HT (RP) *Remote Probe	$235.00
Low Temperature Transmitters	
A/TT100-LT-D-( ) *Duct (**4", 8", 12", 18"**)	$230.00
A/TT100-LT-I-( ) *Immersion (**2", 4", 6"**)	$255.00
A/TT100-LT-RP *Remote Probe	$230.00
A/TT100-LT-O Outdoor Air	$240.00
A/TT1K-LT-D-( ) *Duct (**4", 8", 12", 18"**)	$235.00
A/TT1K-LT-I-( ) *Immersion (**2", 4", 6"**)	$260.00
A/TT1K-LT-RP *Remote Probe	$235.00
A/TT1K-LT-O Outdoor Air	$245.00
Submersible Cryogenic Temperature Sensors and Transmitters	
A/1K-LTS-RP Remote Probe w/ 6' Leads	$135.00
A/TT1K-LTS-RP Remote Probe w/ 6' Leads	$240.00
A/TTM1K-LTS-RP Remote Probe w/ 6' Leads	$260.00
A/GLYCOL BOTTLE Matched Nalgene TM Bottle 4 oz	$15.00

*** Add $5.00 for Aluminum Weatherproof NEMA 3R Enclosure (Not available for strap-on configurations)**
*** Add $10.00 for Polycarbonate NEMA 4X Enclosure**

Price List

List Pricing from
Automation Components, Inc.

Effective June 1st 2008

Model No.	List
5% Relative Humidity Transmitters	
A/RH5-R Room	$187.20
A/RH5-D *Duct	$192.40
A/RH5-O Outdoor	$192.40
A/RH5-SP Stainless Plate	$192.40
3% Relative Humidity Transmitters	
A/RH3-R Room	$270.00
A/RH3-D *Duct	$280.00
A/RH3-O Outdoor	$290.00
A/RH3-SP Stainless Plate	$290.00
2% Relative Humidity Transmitters	
A/RH2-R Room	$350.00
A/RH2-D *Duct	$360.00
A/RH2-O Outdoor	$370.00
A/RH2-SP Stainless Plate	$370.00
1% Relative Humidity Transmitters	
A/RH1-R-( ) Room (Choose 20% Span)	$550.00
A/RH1-D-( ) *Duct (Choose 20% Span)	$560.00
A/RH1-O-( ) Outdoor (Choose 20% Span)	$570.00
A/RH1-SP Stainless Plate (Choose 20% Span)	$570.00
Humidity/Temperature Sensor Combinations	
A/RH5-(Any Thermistor)-R Room	$197.20
A/RH5-(Any Thermistor)-D *Duct	$206.40
A/RH5-(Any Thermistor)-O Outdoor	$206.40
A/RH5-(Any Thermistor)-SP Stainless Plate	$206.40
A/RH3-(Any Thermistor)-R Room	$280.00
A/RH3-(Any Thermistor)-D *Duct	$294.00
A/RH3-(Any Thermistor)-O Outdoor	$304.00
A/RH3-(Any Thermistor)-SP Stainless Plate	$304.00
A/RH2-(Any Thermistor)-R Room	$360.00
A/RH2-(Any Thermistor)-D *Duct	$374.00
A/RH2-(Any Thermistor)-O Outdoor	$384.00
A/RH2-(Any Thermistor)-SP Stainless Plate	$384.00
Humidity/Temperature Transmitter Combinations	
A/RH5-TT100-R Room	$277.20
A/RH5-TT100-D *Duct	$289.40
A/RH5-TT100-O Outdoor	$301.00
A/RH5-TT1K-R Room	$283.70
A/RH5-TT1K-D *Duct	$296.00
A/RH5-TT1K-O Outdoor	$306.00
A/RH3-TT100-R Room	$360.00
A/RH3-TT100-D *Duct	$377.20
A/RH3-TT100-O Outdoor	$397.50
A/RH3-TT1K-R Room	$366.50
A/RH3-TT1K-D *Duct	$383.50
A/RH3-TT1K-O Outdoor	$403.50
A/RH2-TT100-R Room	$440.00
A/RH2-TT100-D *Duct	$457.20
A/RH2-TT100-O Outdoor	$477.50
A/RH2-TT1K-R Room	$446.50
A/RH2-TT1K-D *Duct	$463.50
A/RH2-TT1K-O Outdoor	$483.50

*** Add $5.00 for Aluminum Weatherproof NEMA 3R Enclosure (Not available for strap-on configurations)**
*** Add $10.00 for Polycarbonate NEMA 4X Enclosure**

Price List

List Pricing from
Automation Components, Inc.

Effective June 1st 2008

Model No.	List
Pressure Transmitters	
A/LP Low Differential Pressure Transmitter	$166.00
A/DP Field Selectable Low Differential Pressure Transmitter	$320.00
Pitot Tubes	
A/PT 3 5/32" Pitot Tube w/1 sensing point	$36.00
A/PT 5 13/32" Pitot Tube w/2 sets of sensing points.	$40.00
A/PT 7 21/32" Pitot Tube w/3 sets of sensing points	$48.00
A/PT 9 29/32" Pitot Tube w/4 sets of sensing points	$56.00
For use with AFS Pressure Switches:	
A/SPT 3" Pitot Tube for sensing Static Pressure	$8.00
A/SPT 8" Pitot Tube for sensing Static Pressure	$20.00
A/VPT Pitot Tube for sensing Velocity Pressure	$8.00
Gage Pressure and Wet to Wet	
A/GP Series 4 to 20 mA Gage Pressure Transmitters	$285.00
A/GP-4 above sensor in NEMA 4 Housing	$410.00
A/629 Wet to Wet Differential Pressure Transducer	$815.00
A/629-3V above sensor w/3 Valve Manifold	$1,145.00
A/629-D A/629 w/LED Display	$1,100.00
A/WP Wet to Wet Differential Pressure Transducer	Consult Factory
A/WP-3V above sensor w/3-Valve Manifold	Consult Factory
A/Snubber 316 Stainless Steel Snubber (Gauge Protector)	$74.00
Pressure Switches	
A/AFS-222 0.07 to 12" H2O w/ Automatic Reset	$52.00
A/AFS-262 0.07 to 2" H2O w/ Automatic Reset	$56.00
A/AFS-460 0.06 to 12" H2O w/ Manual Reset	$90.00

*** Add $5.00 for Aluminum Weatherproof NEMA 3R Enclosure (Not available for strap-on configurations)**
*** Add $10.00 for Polycarbonate NEMA 4X Enclosure**

Price List

List Pricing from
Automation Components, Inc.

Effective June 1st 2008

Model No.	List
Current Sensors	
Solid Core, N/O, "Go/No Go" Current Switch	
A/CS 0.5A Trip, 0-250 Amp Operating Range	$58.00
A/CS-L 0.1A Trip, 0-250 Amp Operating Range	$64.00
A/CSX 0.5 A Trip, 0-250 Amp Operating Range	$58.00
A/CSX-L 0.1 A Trip, 0-250 Amp Operating Range	$64.00
Split Core, "Go/No Go" Current Switch	
A/SCS N/O Trip = 1.5 Amps	$65.00
A/SCS-L N/O Trip = 1.0 Amps	$71.00
A/SCSX N/C Trip = 1.5 Amps	$65.00
Solid Core Adjustable Current "Status" Switch	
A/ACS N/O, 0.80-250A	$97.00
A/ACS-L N/O, 0.35-250A	$103.00
A/ACSX N/C, 0.80-250A	$97.00
Split Core, Adjustable Current Switch	
A/ASCS N/O, Trip = 2.0 - 250 Amps	$100.00
A/ASCS-L N/O, Trip = 1.7 - 250 Amps	$106.00
A/ASCSX N/C, Trip = 2.0 - 250 Amps	$100.00
A/ASCSX-L N/C, Trip = 1.7 to 250 Amps	$106.00
Solid Core Loop Powered Current Sensor	
A/CTA-5 4-20mA output, 0-5 Amps Fixed Input	$120.00
A/CTA-50 4-20mA output, 0-10/0-20/0-50 Amps	$100.00
A/CTA-250 4-20mA output, 0-100/0-200/0-250 Amps	$100.00
Split Core Loop Powered Current Sensor	
A/SCTA-5 4-20mA Output, 0-5 Amps Fixed Input	$130.00
A/SCTA-50 4-20mA Output, 0-10/0-20/0-50 Amps	$110.00
A/SCTA-200 4-20mA Output, 0-100/0-150/0-200 Amps	$110.00
Solid Core Loop Powered, True RMS, Current Sensor	
A/CTA-5-VFD 4-20mA Output 0-5 Amps Fixed Input	$160.00
A/CTA-50-VFD 4-20mA Output, 0-10/0-20/0-50 Amps	$140.00
A/CTA-250-VFD 4-20mA Output, 0-100/0-200/0-250 Amps	$140.00
Split Core Loop Powered, True RMS, Current Sensor	
A/SCTA-5-VFD 4-20mA Output, 0-5 Amps Fixed Input	$170.00
A/SCTA-50-VFD 4-20mA Output, 0-10/0-20/0-50 Amps	$150.00
A/SCTA-200-VFD 4-20mA Output, 0-100/0-150/0-200 Amps	$150.00
Solid Core Current Sensor	
A/CTE-50 0-5VDC Output, 0-10/0-20/0-50 Amps	$83.00
A/CTE-250 0-5VDC Output, 0-100/0-200/0-250 Amps	$83.00
A/CTV-50 0-10VDC Output, 0-10,0-20, 0-50 Amps	$83.00
A/CTV-250 0-10VDC Output, 0-100, 0-200, 0-250 Amps	$83.00
Split Core Current Sensor	
A/SCTE-50 0-5VDC Output, 0-10/0-20/0-50 Amps	$100.00
A/SCTE-250 0-5VDC Output, 0-100/0-200/0-250 Amps	$100.00
A/SCTV-50 0-10VDC Output, 0-10/0-20/0-50 Amps	$100.00
A/SCTV-250 0-10VDC Output, 0-100/0-200/0-250 Amps	$100.00

Price List

List Pricing from
Automation Components, Inc.

Effective June 1st 2008

Model No.	List
Gas/Smoke Detectors	
Electrochemical CO Transmitter	
A/CO-R Room	$450.00
A/CO-R-4X Room w/NEMA 4X ENC	$525.00
A/CO-R-LCD Includes Buzzer Alarm and two SPDT Relay's	$550.00
A/CO-D Duct w/ Pitot Tube	$525.00
A/CO-R-4X-RB Room w/NEMA 4X, Relays and Buzzer	$675.00
Other Gas Transmitters available: Oxygen, Nitrogen Dioxide, Nitric Oxide and Ammonia. Consult Factory	
CO2 Transmitter (0-10VDC only)	
A/CO2-010-R Room	$340.00
A/CO2-010-R-L Room w/ LED	$355.00
A/CO2-010-D Duct	$360.00
Analog CO2 Transmitter w/ Relay, 0-10 VDC and 4 to 20 mA ouputs	
A/CO2-R Room	$500.00
A/CO2-R-LCD Room w/ LCD Display	$540.00
A/CO2-D Duct w/ Pitot Tube and LCD	$550.00
-1508 1508 Enclosure add	$105.00
A/CO2-T-RO CO2 w/ Temperature & Override	$550.00
A/CO2-T-RSO CO2 w/ Temp.,Set, & Override	$565.00
A/SM501 Series Duct Smoke Detectors	$195.00
A/SL-2000 Series Duct Smoke Detectors	$195.00
A/STS-1.0' 1.0' Sampling Tube for Duct Smoke Detector	$9.50
A/STS-2.5' 2.5' Sampling Tube for Duct Smoke Detector	$12.00
A/STS-5.0' 5.0' Sampling Tube for Duct Smoke Detectors	$16.00
A/STS-10' 10.0' Sampling Tube for Duct Smoke Detectors	$22.00

Price List

List Pricing from
Automation Components, Inc.

Effective June 1st 2008

Model No.	List
Accessories	
A/PS 1.5 Adjustable Power Supply	$43.00
A/LLS Resistive Light Level Sensor 1/2" NPT Clear Head	$37.50
A/LLS-T Light Level Transmitter NEMA 4 Bell Box	$120.00
A/FS-1 (1) SPDT, 20', Manual Reset Freeze Stat	$150.00
A/FS-1A (1) SPDT, 20', Auto Reset Freeze Stat	$138.00
A/FS-2 (2) SPDT, 20', Manual Reset Freeze Stat	$184.00
A/FS-2A (2) SPDT, 20', Auto Reset Freeze Stat	$173.00
A/FS-3 (1) SPDT, 10', Manual Reset Freeze Stat	$146.25
A/FS-3A (1) SPDT, 10', Auto Reset Freeze Stat	$134.00
A/FS-4 (2) SPDT, 10', Manual Reset Freeze Stat	$179.00
A/FS-4A (2) SPDT, 10', Auto Reset Freeze Stat	$168.00
A/FS-5 (1) SPDT, 6', Manual Reset Freeze Stat	$144.00
A/FS-5A (1) SPDT, 6', Auto Reset Freeze Stat	$133.00
A/FS-6 (2) SPDT, 6', Manual Reset Freeze Stat	$177.00
A/FS-6A (2) SPDT, 6', Auto Reset Freeze Stat	$165.00
A/DBZ-05 Capillary Mounting Brackets	$11.00
A/DBZ-07 Housing Mounting Bracket	$8.50
A/2.5" Stainless Steel Two-Piece Thermowell	$24.00
A/4" Stainless Steel Two-Piece Thermowell	$26.00
A/6" Stainless Steel Two-Piece Thermowell	$30.00
A/M4" Machined Stainless Steel Thermowell	$65.00
A/M6" Machined Stainless Steel Thermowell	$75.00
A/SG Silicon Thermal Grease 8oz Tube	$87.82
A/NSG Non-Silicon Thermal Grease 2oz Tube	$33.00
A/WS Weather Station	$170.00
A/WSMP Weather Station Mounting Plate	$6.50
A/PS Clear Plexishield	$45.00
A/LOCKING COVER Locking Cover for room enclosures	$15.00
A/MOUNTING PLATE Plastic Wall Mounting Plate	$22.00
A/MOUNTING PLATE 10 Steel Wall Mounting Plate	$18.00

Price List

List Pricing from
Automation Components, Inc.

Effective June 1st 2008

Model No.	List
Interface Devices	
Pressure to Current/Voltage	
A/PTP 3 to 15 or 3 to 30 psi*	$90.00
A/PTP-G 3 to 15 or 3 to 30 psi w/Gauge*	$100.00
Analog to Pressure	
A/PXP 0,1,5,7.3 Single Valve Control*	$141.00
A/PXP0,1,5,7.3-G Above w/Gauge*	$154.00
A/PXP2.3 Dual Valve Control*	$178.00
A/PXP2.3-G Above w/Gauge*	$191.00
A/PXP2.3 FS A/PXP2.3 w/"Fail Safe"*	$248.00
A/PXP2.3 FSG Above w/Gauge*	$259.00
A/EPC Field Adjustable Single Valve Control*	$148.00
A/EPC-G Field Adjustable Single Valve Control w/Gauge*	$160.00
A/EPC2 Field Adjustable Dual Valve Control*	$184.00
A/EPC2-G Field Adjustable Dual Valve Control w/Gauge*	$195.00
A/EPC2 FS A/EPC2 "Fail Safe" Control*	$238.00
A/EPC2 FS-G Above w/Gauge*	$252.00
Pulse to Pressure	
A/EPW Single Valve Control*	$207.00
A/EPW-G Above w/Gauge*	$218.00
A/EPW2 Dual Valve Control*	$254.00
A/EPW2-G Above w/Gauge*	$265.00
A/EPW2 FS "Fail Safe" Dual Valve Control*	$298.00
A/EPW2 FS-G Above w/Gauge*	$308.00
Interface Devices	
A/ARM Analog Re-Scaling Module*	$90.00
A/ARM2 Dual Output Analog Re-Scaling Module*	$118.00
A/AIM1 Analog Isolation Module* 1:1 Input/Output Ratio	$186.00
A/AIM2 Re-Scaleable Isolation Module*	$215.00
A/AAR Analog Input to (2) Adjustable Relay Outputs*	$98.00
A/ATL Analog Input to (4) Adjustable Relay Outputs*	$142.00
A/PTA Digital Pulse Input to Analog Output*	$112.00
A/PTA2 Digital Pulse Input to 0-10VDC Output Only*	$90.00
A/DRN3.1 Multiple Input/Resistive Output*	$260.00
A/DRN4 Multiple Input/Resistive Output -Motor Mount (0 to 135 Ohm Only)	$304.00

*** Snap Track Mount standard Add $12.00 for Optional ENC1 Enclosure**
**** Add $5.00 for Special Calibration on Pressure Transducers**

This page left intentionally blank