



Automation Components, Inc.

# SEMICONDUCTOR

General Mounting



Quick snap latch

Hinged cover (no screws)

Product shown: ACI's Plastic Box



CE exception: Averaging units and any other configuration with leads longer than 3 meters.

Double encapsulation process for all probe related sensors

## CONFIGURATION

Part #	Configuration
( D )	Duct
( DO )	Duct w/o box
( I )	Immersion w/ fabricated well
( IM )	Immersion w/ machined well
( INW )	Immersion w/o well
( A )	Copper Averaging
( S )	Strap
( O )	Outdoor Air
( W )	Raw Potted Sensor
( W-6' )	Raw w/6' Leads
( BP )	Bullet Probe

## SENSOR OUTPUTS

Part #	Output
A/592	248 to 378 uA
A/592-10K	2.49 to 3.78VDC

## SEMICONDUCTOR

ACI offers a comprehensive list of general mounting configurations (see list above). The most prominent enclosure of this series is the ACI Plastic Box. It features a robust design and advanced features not typically found in a standard sensor enclosure. Each sensor configuration is designed and manufactured for long-term quality and performance.

The A/592 Series semiconductor type temperature sensors provide accurate temperature measurement and control. The A/592-10K uses a precision 10K (0.1%) resistor to convert the current output to a three-wire output. These units are calibrated using a NIST traceable thermometer to ensure the highest possible accuracy.

The ACI /592 Series is covered by ACI's Five (5) year limited warranty, which is located in the front of ACI's Sensors & Transmitters catalog or can be found on ACI's web site, which is [www.workaci.com](http://www.workaci.com).



Made in the U.S.A.

## SPECIFICATIONS

Supply Voltage	+4 to 30 VDC
Temperature Coefficient	A/592 - 1 $\mu$ A/ $^{\circ}$ C (0.556 $\mu$ A/ $^{\circ}$ F)
Temperature Coefficient	A/592-10K - 10 mV/C (5.556 mV/ $^{\circ}$ F)
Accuracy	+/- 1.26 $^{\circ}$ F @ 77 $^{\circ}$ F (+/- 0.70 $^{\circ}$ C @ 25 $^{\circ}$ C)
Repeatability	+/-0.18 $^{\circ}$ F (+/- 0.10 $^{\circ}$ C)
Linearity	+/-0.27 $^{\circ}$ F max from 32 to 158 $^{\circ}$ F
Operating Temperature Range	-13 to 221 $^{\circ}$ F (-25 to 105 $^{\circ}$ C)
Offset	+/- 4 $^{\circ}$ F max (+/- 2.2 $^{\circ}$ C max)

## ORDERING

**BUILD YOUR PART#**

EXAMPLE

A/592 - D - 4" - PB -

A B C D E

STEP 1	A SENSOR SERIES	B CONFIGURATION	C LENGTH	D ENCLOSURE	E LEAD WIRE
Select sensor series, configuration, length, enclosure & lead wire if needed.  The orange outlines indicate related characteristics *See Thermowell data sheet for proper well selection for all Immersion related sensors.	A/592	( D ) Duct	4", 8", 12", 18"	PB, GD, BB, 4X, EH	(----)
	A/592-10K	( DO ) Duct w/o box	4", 8", 12", 18"	(----)	6'CL2P, 10'CL2P, 20'CL2P
		( I ) Immersion w/ fabricated well	2.5", 4", 6"	PB*, GD, BB, 4X, EH	(----)
		( IM ) Immersion w/ machined well	2.5", 4", 6"	PB*, GD, BB, 4X, EH	(----)
		( INW ) Immersion w/o well	2.5", 4", 6"	PB*, GD, BB, 4X, EH	(----)
		( A ) Copper Averaging	8', 12', 24'	PB, GD, BB, 4X, EH	(----)
		( S ) Strap	(----)	PB*, GD, --, 4X, --	(----)
		( O ) Outdoor Air	(----)	--, --, BB, 4X, EH	(----)
		( W ) Raw Potted Sensor	(----)	(----)	(----)
		( W-6' ) Raw w/6' Leads	(----)	(----)	(----)
		( BP ) Bullet Probe	(----)	(----)	(----)

### CONFIGURATION OPTIONS (Table B)



### ENCLOSURE OPTIONS (Table D) available options shown on the same line as their corresponding configurations

( 4X )	NEMA 4X
( BB )	NEMA 3R
( GD )	Galvanized Box
( EH )	Euro Housing (weather tight)
( PB )	Plastic Box

\*The ACI plastic box (PB) is rated for application environments ranging from -4 to 196 $^{\circ}$ F (-20 to 91 $^{\circ}$ C), the box is shown with an immersion adapter.



The NEMA 4X enclosure has a UL94-V2 flammability rating.

The Euro Housing enclosure has a UL94-V0 flammability rating.