

### FIGURE 1: LLS DIMENSIONS



### **GENERAL INFORMATION**

The A/LLS and A/LLS-T light level sensors and transmitters are used for applications such as turning on or off indoor or outdoor lighting based upon the amount of available light. The sensor can be mounted in a NEMA 3R rated enclosure. In darkness, the sensor has a resistance in excess of 1M ohms, versus a resistance of less than 1.5K ohms in bright light. 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. Typically the 0-500 is used for outdoor parking lot lighting/signage applications and the 0-100 is used for indoor lighting.

### **MOUNTING INSTRUCTIONS**

#### For optimal readings, follow these tips:

• Do NOT point the sensor towards the sky. Material(ie: bird waste, snow, etc.) can cover the eye.

• Point the sensors towards the North. Northeast and or Northwest is also acceptable. Try to avoid East, West, or South.

The ACI/LLS, is designed to be mounted in a weatherproof enclosure with ½" NPT threads. All ACI/LLS-T transmitters will be snap-track mounted.

## FIGURE 2: LLS-T DIMENSIONS





#### FIGURE 3: MOUNTING



## WIRING INSTRUCTIONS

The ACI/LLS-T must be powered with a 24VDC power supply, making sure to connect the wires to the correct terminal blocks since the units are polarity sensitive. Note that the ACI/LLS-T is not a loop-powered device, therefore a total of (3) wires must be used to send the signal back to the DDC Control System.

The ACI/LLS is calibrated for 20mA in bright light and 4mA in total darkness and is current limited to 22mA.



#### TABLE 1: ACI/LLS-T CONNECTIONS

TERMINAL BLOCKS	CONNECTIONS
+VDC	+24 VDC Supply Voltage
-VDC	Ground or common
I/V	Current output
+LLS	Red wire of sensor
-LLS	Black wire of sensor



# **PRODUCT SPECIFICATIONS**

NON-SPECIFIC INFORMATION		
Sensor Process Thread:	1/2" NPT	
Sensor Operating Temperature	-40 to 70°C (-40 to 158°F)	
Range   Humidity Range:	0-95% Relative Humidity, non-condensing	
Sensor Continuous Power	80 mW	
Dissipation:		
Sensor Maximum Voltage:	100V pk	
Sensor Resistance @ 10 Lux	Typical: 24K Ohms   Minimum: 12K Ohms   Maximum: 36K Ohms	
(@25°C):		
Sensor Resistance @ 2	Typical: 12K	
Foot-Candles (@25°C):		
Sensor Resistance @ Dark:	Minimum: 500K	
Transmitter Supply Voltage:	24 to 35 VDC	
Transmitter Input Impedance:	150K Ohms	
Transmitter Output Current Signal	4-20 mA (3 Wire)	
Range:		
Transmitter Maximum Load	500 Ohms	
Resistance:		
Transmitter Light Level	Model Dependent: 100 foot-candles (0-100) / 500 foot-candles (0-500)	
Measurement Range:		
Transmitter Operating	35 to 131°F (1.5 to 55°C)	
Temperature Range:		
Transmitter Storage Temperature	-0 to 160°F (-40 to 71°C)	
Range:		
Transmitter Operating Relative	5 to 95% non-condensing	
Humidity Range:		
Transmitter Connections   Wire	Screw Terminal Blocks   16 (1.31 mm <sup>2</sup> ) to 26 AWG (0.129 mm <sup>2</sup> )	
Size:		
Transmitter Terminal Block	0.5 Nm (Minimum); 0.6 Nm (Maximum)	
Torque Rating:		

### WARRANTY

The ACI LLS and LLS-T S temperature sensors are 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 website: www.workaci.com.





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