

*The RAD is a portable remote angle display monitoring system for line array alignment, capable of coordinating multiple sensors from one LCD reader.*



Photo A: RAD-AV dual line display

### Features

- Hand Held LCD Display
- Rugged Aluminum Housing
- Single or Dual Line LCD
- Angle Displayed in Degrees
- 0.1° LCD Resolution
- XLR Cord Plug Connectors
- Battery Powered
- ON/OFF Switch
- Low Battery Warning
- Relative Zero Function
- Min/Max Angle Function

### Semi-Custom Options

- Customer Specified Ranges
- Relative Difference Function
- Remote Sensor Choice

### Applications

- Sound System Remote Alignment
- Line Array/Speaker Positioning/Installation
- Remote Platform Leveling

### Description

The (RAD) Remote Angle Display System is a precision instrument designed for the Pro Sound Engineer to accurately position line array speaker stacks - allowing the engineer on the floor to quickly establish optimum position of the PA system being flown, regardless of how high.

Available as a single line LCD (RAS) or a dual line LCD (RAD), which reads two sensors at the same time, multiple sensors can be used interchangeably with one display box to coordinate multiple stacks.

For maximum flexibility, the remote sensor options can be permanently installed onto various bumpers or rigs, while maintaining a smaller number of readers on the shelf - no more worrying about cross compatibility issues, especially when setting up multiple venues.

The RAD system has two sensor options (see Figures 2 & 3). A typical configuration includes one LCD Reader box with a number of sensors; typically 2 or 4 sensors. Both sensor and reader use standard type XLR connectors.

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# RAD AV Flex Series

## Remote Angle Display for Sound Engineers

### LCD Reader Box Technical Specifications

INPUT PARAMETERS	
Sensor Measuring Range	±180°
Power Supply	9 VDC Battery
LCD DISPLAY PARAMETERS	
Output Units	Degrees
LCD Display RAD	Dual Line
LCD Display RAS	Single Line
LCD Resolution	0.1°
Min / Max Readings	Stored in Volatile Memory
Relative Zero	Stored in Volatile Memory
SEMI-CUSTOM OPTIONS	
Relative Difference - Optional	Stored in Volatile Memory
MECHANICAL	
Display Housing	Die Cast Aluminum – Painted Black
Mounting Holes	Two M4 x 0.7 or Two #8-32
Outline Dimensions	4.53" x 3.54" x 2.21" (115 x 90 x 56mm)
Electrical Connection	Female XLR Cord Plug Receptacle (Switchcraft PN D3F)
Display Box Weight	16 ounces
Operating Temperature	-20°C to +70°C
Storage Temperature	-40°C to +85°C
FEMALE XLR CORD PLUG RECEPTACLE WIRING	
PIN	FUNCTION
1	Sensor Power from Battery
2	Sensor Input 4..20mA
3	Common

### RAD/RAS Button Functions

#### MIN/MAX Button

The MIN/MAX function provides the smallest and largest angle the device has sensed since it was last reset.

#### Relative Zero (REL) Button

*Standard on all display models:* The REL button allows the user to set a new zero position after the RDI is mounted. Press the REL button and release and the display will read REL ON \* for 1 sec then 0.1° \*. The ( \* ) indicates the measurement is not referenced to the true calibrated 0, but a referenced zero. The MIN/MAX angles are now referenced to the new referenced zero. Press the REL button again and the display will read REL OFF for 1 second then return to the true calibrated zero. The MIN/MAX angles are now again referenced to the true calibrated zero.

#### Relative Difference (REL) Button

*Available for RAD2 only:* The REL button is programmed to give the difference between the TOP and BOTTOM sensors. A RAD2 with this feature would display the following: SENSOR 1/SENSOR 2: SENSOR 1 would be placed on top of the speaker array = TOP LINE OF DISPLAY = TOP CONNECTOR on side of box; SENSOR 2 will be placed on the bottom of the speaker array = BOTTOM LINE OF DISPLAY = BOTTOM CONNECTOR on side of box.

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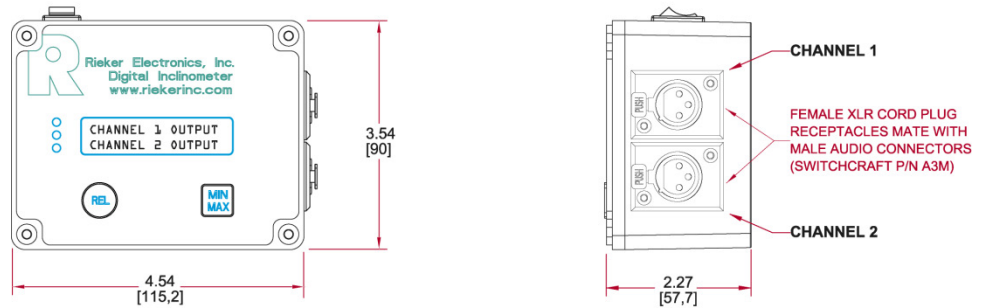
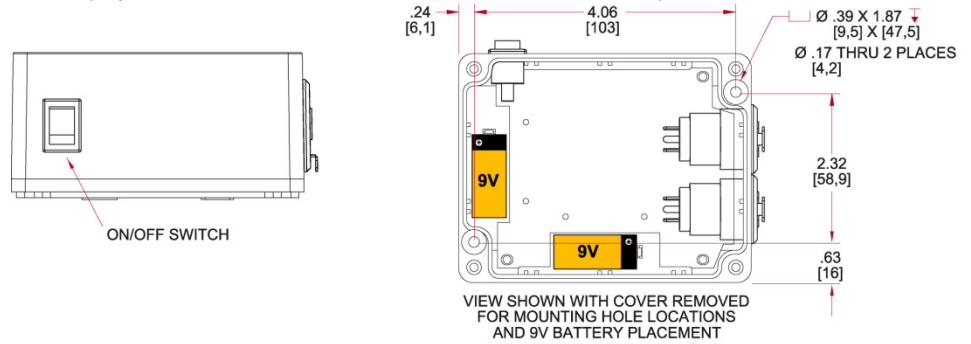
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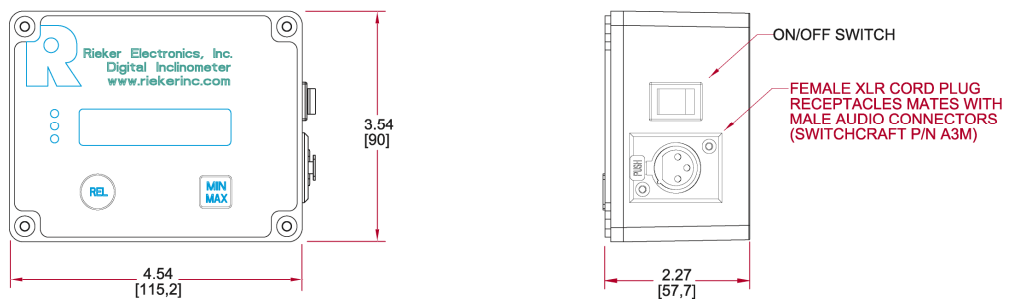
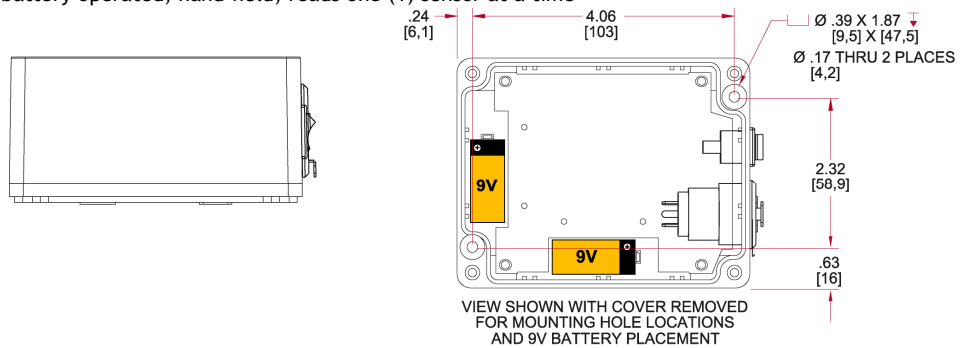
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**FIGURE 1A: RAD LCD Display “Reader” Box Dimensions (inches [mm])**  
 Dual Line LCD Display Box - battery operated, hand-held, reads two (2) sensors simultaneously



**FIGURE 1B: RAS LCD Display “Reader” Box Dimensions (inches [mm])**  
 Single Line LCD Box - battery operated, hand-held, reads one (1) sensor at a time



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### REMOTE SENSOR OPTION B: Flex H4360

#### Description

±180° tilt angle sensor has a rugged potted all-weather Die-Cast metal housing, which protects the electronics in a space saving small footprint.

#### Connection

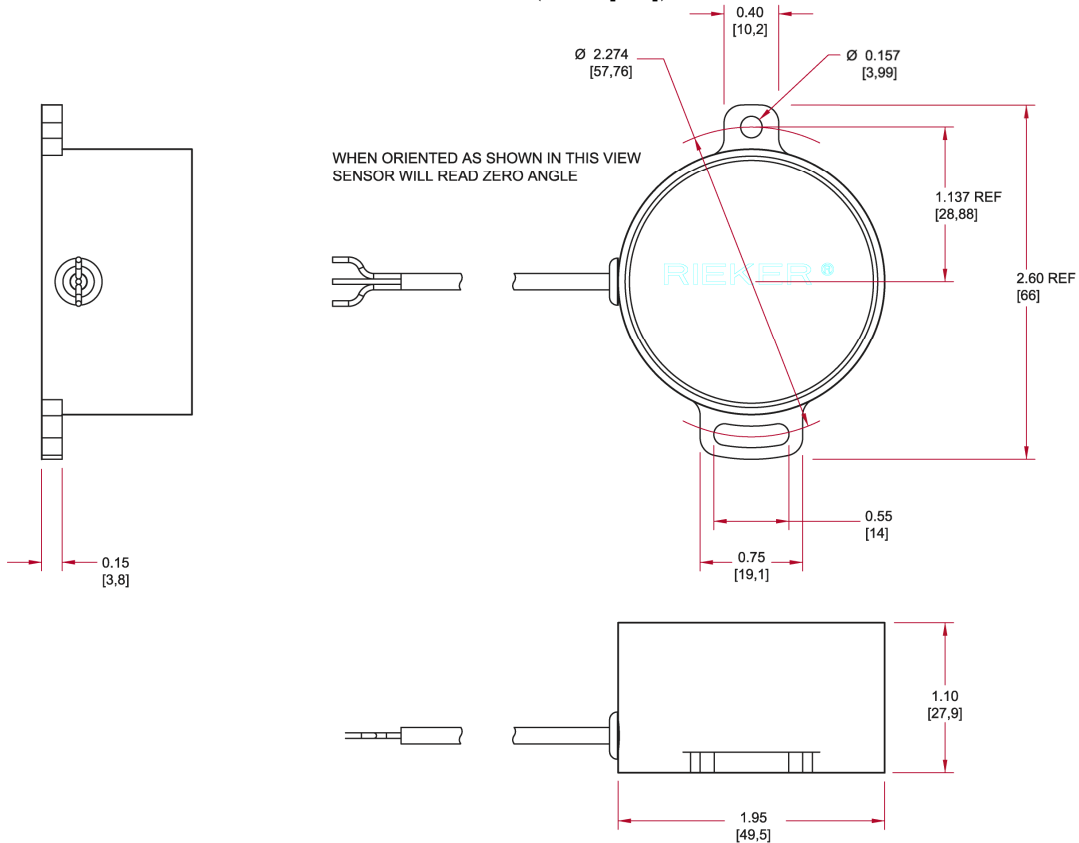
XLR connector attached to the robust built-in 3" cable for easy connection.

#### Mounting

Bolt or screw on for permanent mounting onto the frame. Mounts on a flat vertical surface, like a clock on the wall.



**FIGURE 3:** H4360 Remote Inclinometer Dimensions (inches [mm]) - Vertical Mount



#### H4360 MECHANICAL CHARACTERISTICS

<b>HOUSING</b>	Die Cast Zinc
<b>MOUNTING HOLES</b>	Two #6-32
<b>MOUNTING PLANE</b>	Vertical Surface
<b>OUTLINE DIMENSIONS</b>	Ø1.95" x 1.1" (Ø49.5 x 28mm) See Drawing
<b>ELECTRICAL CONNECTION</b>	1ft. Teflon Cable with 3 pigtail leads
<b>WEIGHT</b>	8 ounces (227 grams)

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