

## MODEL RCA 22

### 3" VACUUM HORIZON INDICATOR

The RCA 22 series has been designed with precision, reliability, and extended life in mind. Meets or exceeds all requirements of the FAA TSO C4c, and the Aeronautical Standard AS396B .

The RCA22 Series of vacuum artificial horizons are controlled by an air driven precision gyro to present the pilot with pitch and roll information. Unless otherwise indicated all instruments have a blue/brown display, fixed pointer and are either lighted or unlighted (14 or 28VDC).

All R.C. Allen vacuum gyros run off of 4.5 inch Hg, erect time is 3 minutes. Instruments equipped with a warning flag will let you know when vacuum has dropped below 3.6 inch Hg. Flag retracts from view at 4.3 inch Hg.

A 1/4 -18 NPTF nylon tube slip fitting is recommended for air/vacuum hose installation. A 1/8 - 27 NPTF nylon tube slip fitting is recommended for vacuum gage installation.

#### Performance Characteristics:

- Roll indication: 360°
- Pitch indication:  $\pm 30^\circ$
- Pitch trim range:  $\pm 10^\circ$  to -5
- Altitude operation: up to 40,000 ft.

#### Accuracy:

- Settling error: 1° max. in roll and pitch
- Verticality error: 1° max

#### Vacuum Requirements:

- Starting vacuum: 2 in. of Hg. Max
- Operating vacuum: 4.5in. of Hg.

#### Installation:

- Level instrument in panel by placing level upon front ledge of bezel against glass. Rotate unit left or right to center bubble of level. Tighten screws when level.

#### Dimensions:

- Length: 6.50 in. Max
- Width: 3.38 in. Max
- Height: 3.38 in. Max
- Weight: 2.2 lbs. Max

#### Operating temperature:

- -30 to +70 degrees Celsius.

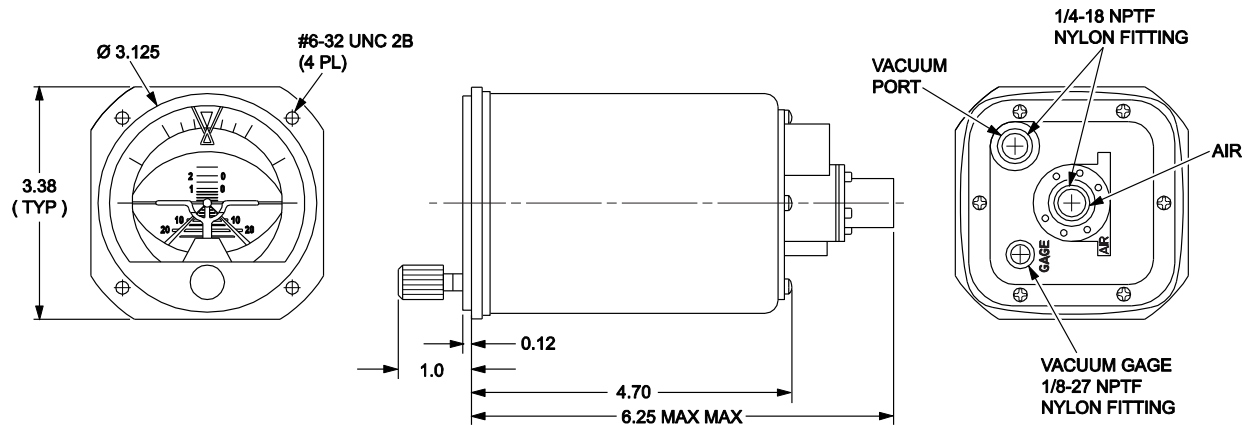
#### Tools for installation:

- 4ea. 6-32 UNC-2B THD mounting screws.
- Starrett bi-directional level #134 or equivalent.
- Phillips screwdriver.

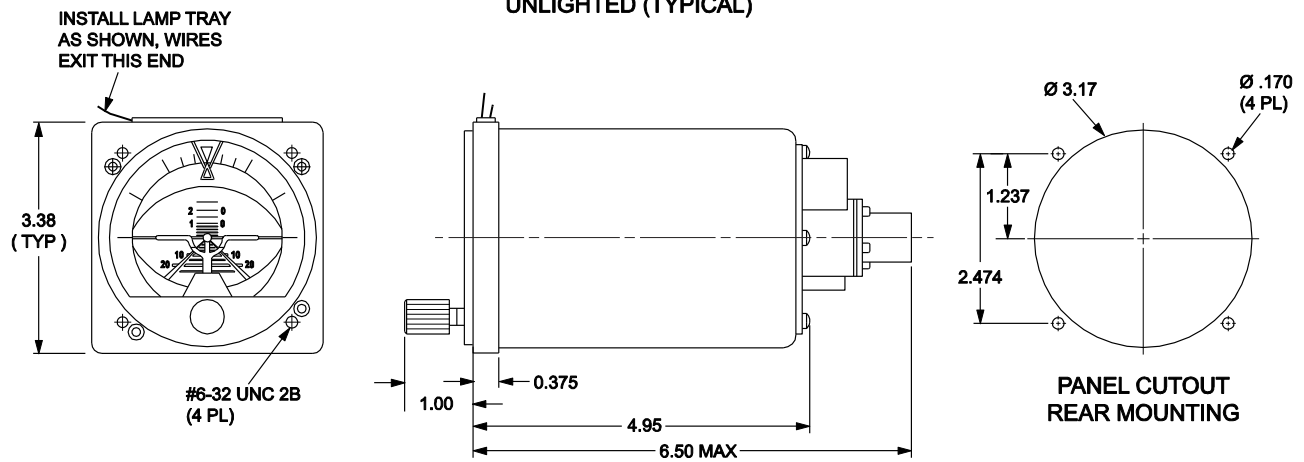
#### Rear threaded ports:

- AIR: 1/4-18 NPTF nylon fitting.
- VAC: (unmarked port) 1/4-18 NPTF nylon fitting.
- VAC GAGE: 1/8-27 NPTF nylon fitting.

## RCA 22 VACUUM GYRO HORIZON INDICATOR INSTALLATION DIAGRAM



RCA22-7 SHOWN  
UNLIGHTED (TYPICAL)



RCA22-11  
LIGHTED (TYPICAL)

### NOTE:

- Dimensions are in inches.
- Screw length is .38 plus bezel & panel thickness.
- Light wiring: White - power, Black - Ground.