

Altimeter Guide

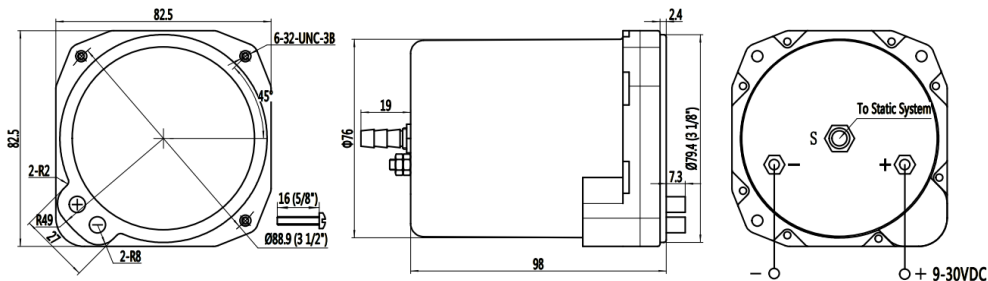


Illustration of Instrument Appearance and Connection

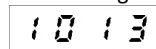
Specifications:

- Operational Temperature: -20°C~ 50°C
- Operational Voltage: 9~30VDC
- Operational Current: ≤ 0.3A
- Altimeter Standards: JJG683
- Weight: ≤ 380g
- Range: -1,000~10,000 m/-3,200 – 40,000 ft (depends on specific models)
- Barometric units: mb/inHg/mmHg (switchable)
- Reference barometric pressure Adjusting range: 200~1150 mb/ 6~33.9 inHg/ 150~860mmHg

Setting Instructions:

Adjusting the reference barometric pressure

The four-digit barometric window below can be found at the bottom of the dial:



The ⊕ and ⊖ buttons is used to adjust barometric pressure. Press ⊕/⊖ to increase/decrease the value. Hold down ⊕/⊖ to advance setting at high speed; Hold down ⊕ and ⊖ simultaneously for three seconds to set the reference barometric pressure to barometric pressure sensed at the moment.

Changing barometric units

Before making any adjustment, please make sure the altimeter is power off. Hold down ⊕ and ⊖ simultaneously and turn power on. Release the buttons once the LED display has turned on. The current barometric unit is displayed. Use ⊕/⊖ to scroll through available units, until the desired unit is displayed. The altimeter will enter working mode automatically when there is no input from either button for 5 seconds.

Definitions of barometric unit on display: n b (nb=mb) . n H (inH=inHg)
n n H (nnH=mmHg)

Calibrating/offsetting the altimeter

The altimeter is equipped with a fine air pressure sensor, with very little drift over time. However if a constant small error is found in the altimeter reading, an offset to correct this can

be set. First make sure the altimeter is power off, then hold down ⊕ and turn on the altimeter. Release the button when the LED display is on. The display shows current value of any offsets:



Altimeter reading = Altitude measured + Offset

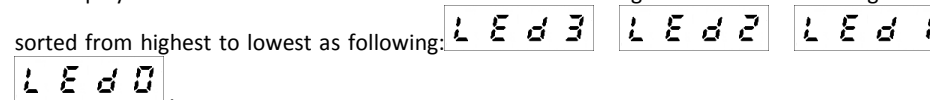
Press ⊕/⊖ to increase/decrease the value. Hold down ⊕/⊖ to advance settings at high speed. The altimeter will enter working mode automatically when there is no input from either button for 5 seconds.

Adjusting LED brightness

Following one of the two procedures below to activate LED brightness setting:

- Make sure the altimeter is power off, hold down ⊖ and turn the altimeter on. Release the button when the LED display is on.
- While the altimeter is in working mode, press ⊕ and ⊖ simultaneously and quickly two times (press ⊕ and ⊖ simultaneously for 0.5s and release and press again in 0.5s).

The display will show 'LEd_x' where 'x' indicates the level of brightness. The level of brightness



Press ⊕/⊖ to increase/decrease level of brightness. The altimeter will enter working mode automatically when there is no input from either button for 5 seconds.

Note: Do not connect instrument to any other power source. Damage may occur.

This unit has not been approved for type certified aircraft.

Operating ranges available in current models: 40,000ft with three pointers, 10,000ft with two pointers, 10,000m with two pointers, 10,000m with three pointers (high resolution 10,000-meter altimeter with one turn per 100m)

CERTIFICATE OF QUALITY	
DATE:	
NAME OF INSTRUMENT	Altimeter
MODEL NO.	ALT3-
SERIAL NO.	
THIS INSTRUMENT HAS BEEN TESTED TO FACTORY QUALITY STANDARDS, AND APPROVED FOR INSTALLATION.	
INSPECTED BY:	
CHANGFENG INSTRUMENTS	

Airspeed Indicator Guide

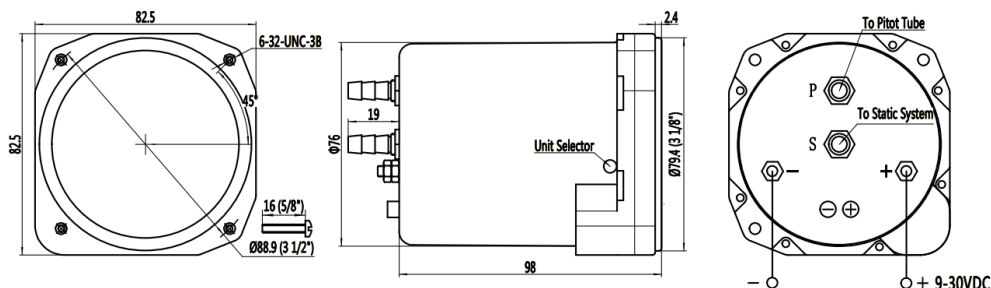


Fig. 1 Illustration of Instrument Appearance and Connection

Specifications:

Operational Temperature: -20°C~50°C

Operational Voltage: 9~30 VDC

Operational Current: ≤ 0.2A

Airspeed Indicator Standards: HB7826

Weight: ≤ 380g

Range: 80/100/120/140/160/180/200/220/240/260/300/400 (depends on specific models)

Airspeed units: KPH/MPH/KNOTS (adjustable except for customised colour marked version)

Setting Instructions:

Calibrating the air speed sensing system

A small-print scale showing any correction factors can be found below the airspeed scale (Fig. 2 Left). If a constant error is observed in the air speed sensing system, hold down ⊕ and ⊖ at the back of the indicator (Fig. 2 Right) for 3 seconds to enter correction factor setting where current correction factor stored can be reviewed (default factor set by manufacturer is 1±0%). Press ⊕ / ⊖ once to increase/decrease correction factor by 1%; the pointer move to the adjacent marker. The maximum adjustment of correction factor is ±30%, i.e. the correction factor ranges from 0.7 to 1.3. The indicator enters working mode automatically if there is no input from either button for 6 seconds.

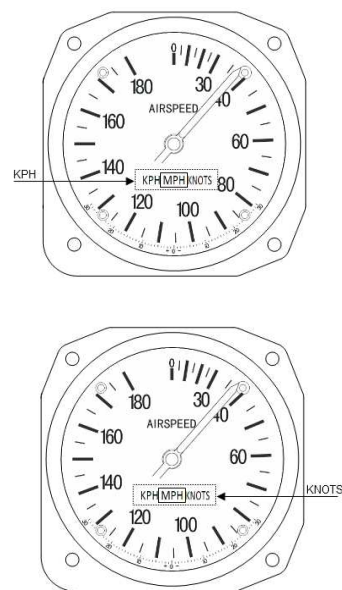


Fig. 2 The bar of airspeed units

It is recommended to switch airspeed units before the airspeed indicator is connected to the panel. The default unit set by the manufacturer is MPH,

- To change to KPH, flip up the sticker covered over the unit-changing hole in the left of the indicator front face (Fig.2 Middle), insert a screwdriver/stick into the hole to push the bar inside the indicator towards right until a complete 'KPH' can be seen in the window (Fig.2 Top). Reapply the sticker cover after changes are made.
- To change to KNOTS, flip up the sticker covered over the unit-changing hole in the right of the indicator front face, insert a screwdriver/stick into the hole to push the bar inside the indicator towards the left until a complete 'KNOTS' can be seen in the window (Fig.2 Bottom). Reapply the sticker cover after changes are made.

Resetting the Airspeed Indicator

If the airspeed indicator does not read 0 when the actual airspeed is 0, wait till one minute after the indicator is power on and the pointer is stable, hold down ⊕ for 6 seconds to reset the pointer to 0. Please note that while calibrating, the pressures at the 'P' and 'S' openings (Fig.2 Right) must be equal. It is recommended to connect the two openings with a tube.

Note: Do not connect instrument to any other power source. Damage may occur.

This unit has not been approved for type certified aircraft.

CERTIFICATE OF QUALITY	
DATE:	
NAME OF INSTRUMENT	Airspeed Indicator
MODEL NO.	ASI3-
SERIAL NO.	
THIS INSTRUMENT HAS BEEN TESTED TO FACTORY QUALITY STANDARDS, AND APPROVED FOR INSTALLATION.	
INSPECTED BY:	
CHANGFENG INSTRUMENTS	

Changing airspeed units

Vertical speed indicator Guide

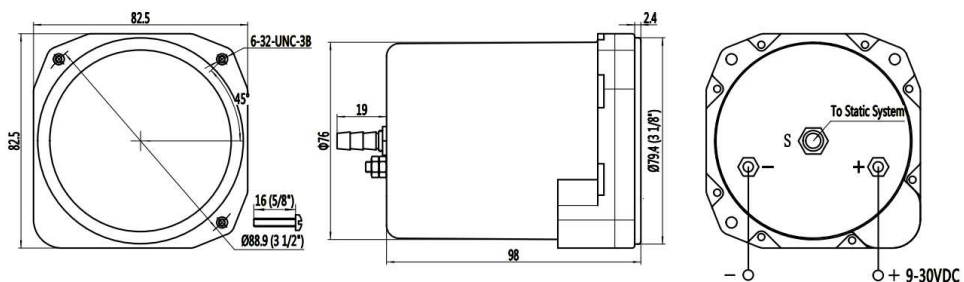


Illustration of Instrument Appearance and Connection

Specifications:

Operational Temperature: -20°C~50°C

Operational Voltage: 9~30 VDC

Operational Current: ≤ 0.2A

Vertical speed indicator Standards: HB7697

Weight: ≤ 380g

Range: ±2000, ±3000, ±6000 ft/min; ±10, ±20, ±30 m/s

Note: Do not connect instrument to any other power source. Damage may occur.
This unit has not been approved for type certified aircraft.

CERTIFICATE OF QUALITY	
DATE:	
NAME OF INSTRUMENT	Vertical speed indicator
MODEL NO.	VSI3-
SERIAL NO.	
THIS INSTRUMENT HAS BEEN TESTED TO FACTORY QUALITY STANDARDS, AND APPROVED FOR INSTALLATION.	
INSPECTED BY:	
CHANGFENG INSTRUMENTS	

Vertical speed indicator Guide

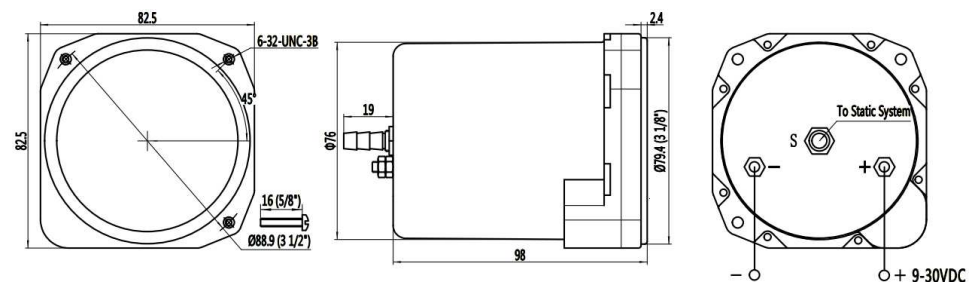


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NAME OF INSTRUMENT	Vertical speed indicator
MODEL NO.	VSI3-
SERIAL NO.	
THIS INSTRUMENT HAS BEEN TESTED TO FACTORY QUALITY STANDARDS, AND APPROVED FOR INSTALLATION.	
INSPECTED BY:	
CHANGFENG INSTRUMENTS	