

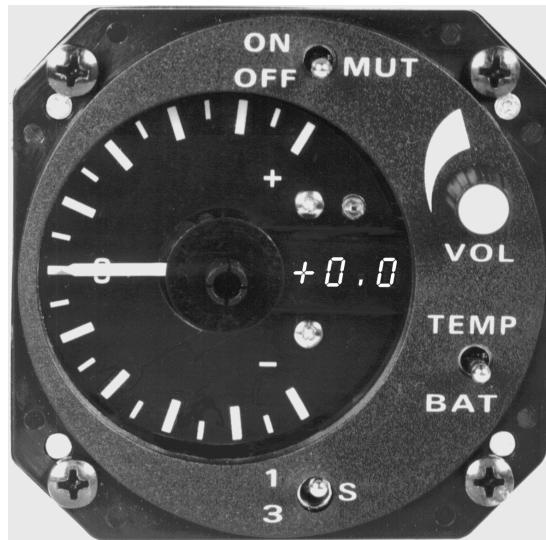


SC-7 Variometer for Club use

The SC7 is designed where simplicity and ease of operation are important, for pilots who require a high quality instrument with good performance at a reasonable price, and who do not require complex speed to fly or final glide computations.

The SC-7 is based on the thousandfold tried and tested SB-7. The use of modern microprocessor technology allows the SC-7 now to show continuous the averaged climb rate. Furthermore it allows to show the battery condition as well as the out air temperature. The brightness of the LED's indicating the average climb rate is automatically adjusted to the daylight intensity. The audio indication is intermitted during climbing. The constant tone during descent can be switched off using the MUTing-switch.

SC-7



Features:

- No flask needed
- Fits in standard 80 mm cut out
- Needs battery and TE probe connections only
- Reverse polarity protected
- Response switching: Climb (1 second) and Cruise (3 seconds)
- Integral audio with adjustable volume, interrupted in climb range
- Sink signal may be switched off so that audio gives lift tone only
- 30 second averager displayed continuous
- Battery condition and out air temperature indicator
- Auxiliary connections for remote speaker and second seat vario meter
- All ILEC products come with a 2 years warranty.

Principle of measurement

The transducer is a thermal flow measurement device using thermistors at constant temperature, developed and by ILEC. It offers an excellent stability of zero output, a very short response time of 5 milliseconds, and strong independence of calibration of changes in temperature of the instrument. It ensures the instruments famous high precision.

Signal conditioning

The raw variometer signal coming from the transducer is fed to three different electronic filters in parallel. With the help of the 1-sec- / 3-sec-filter switch, the display (visual and acoustic) can alternatively be switched on one of the following filters:

1-sec-filter: second order filter with a fast, however strongly damped response.

3-sec-filter: first order filter with a response equivalent to the one of a good moving vane type variometer.

The third filter has a response similar to the 1-sec-filter, however with a much larger time constant. It serves to determine the average vertical speed of which the value can be read on the solid state display.

Audio generator

The full scale range of the audio generator is +/- 15 m/s (or +/- 30 knots). In this way vertical speed far outside the range of the visual display can still be perceived. The audio generator produces a sound with rising frequency during climbing, which is additionally interrupted in the climbing range. In the sink range a constant sound with decreasing frequency is produced, which can be muted by using the MUTing-switch. This function provides silence when cruising.

Battery and temperature display

With the help of the TEMP-BAT-switch, the LCD-display can be switched from displaying the averager value to displaying the temperature or the remaining battery capacity. The SC-7 consumes very little power, and still works at 9V. It is protected against reverse battery connection.

The McCready-disk

As an option a McCready-disk is available for the SC-7. The transparent McCready-disk is put on the pin in the middle of the indicator window. Various versions for the different glider types are available, optionally also unmarked disks.

Additional displays

At the installation of the SC-7 in the two seater, the additional indicator for the seat in the back can be connected at the rear connector of the SC-7.

Remote speaker

A second speaker can be installed in a good spot in the cockpit, if the already installed speaker should not be loud enough. The additional speaker should have at least 8 Ohms and is to be installed at the rear connector of the SC-7. To save current, the built-in speaker can be disconnected.

Altitude error

The calibration factor of the variometer depends on air density and therefore on altitude. When measuring the actual vertical speed, the indicated value decreases at 5% per 1000 meters increase in altitude. In the altitude range from 200 to 2200 m NN the altitude error remains within +/- 5%, at 1200 m NN, the calibration altitude, the error is zero.

Technical Data:

Supply Voltage: 11 to 15 Volts (works down to 9 Volts)
Consumption: 25 mA at medium audio volume, 60 mA max
Dimensions: 83 x 83 x 165 mm (Standard 80 mm cutout)
Weight: 0.55 kg
Temp. Range: Operating: -30 to + 60 deg C
Measurement: +/- 30 kts / +/- 15 m/s
Audio: +/- 30 kts / +/- 15 m/s
Meter: +/- 10 kts / +/- 5 m/s
Zero Accuracy: +/- 0.3 kts from -20 to + 50 deg C
Calibration: Measurement: +/- 2%
Meters: +/- 3%
Altitude: 0 to 45000ft

SC-7 Ancillary fittings

- McCready ring
- Auxiliary speaker
- Auxiliary meter for 57mm aperture
- ILEC TE probe