

APS4A Altitude Preselect System

TECHNICAL DATA SHEET

1. General

The Altitude Preselect System APS4A, P/N: AS01-ALTPRE-00, is intended to be used as an interface for Air Data Displays or Primary Flight Displays with alerter function, and a variety of existing Autopilot Systems to supply Altitude Preselect- and Hold-Function:

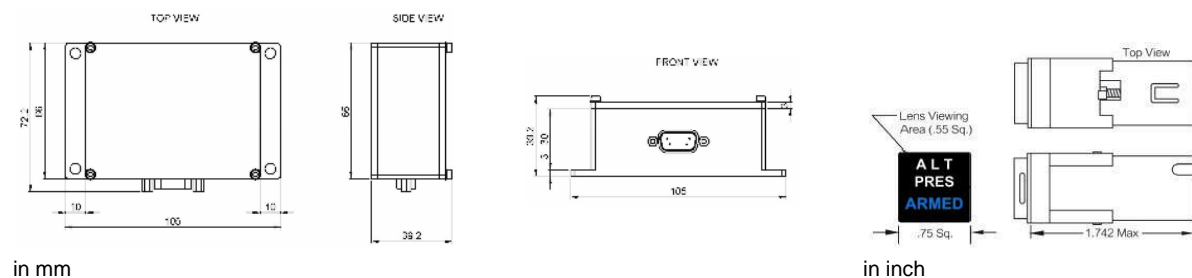
- ARC (Cessna) 400B
- ARC (Cessna) 800B
- ARC (Cessna) 1000
- Century 4
- Century 41
- Collins AP106
- Bendix King KFC 200
- Bendix King KFC 250
- Bendix King KFC 300
- S-TEC System 30
- S-TEC System 50
- S-TEC System 60
- S-TEC System 65

The System is mainly designed for retrofit installation and consists of a small lightweight interface box, the Altitude Preselect Interface Box P/N: AS02-ALTPIB-()() and an Altitude Preselect Indicator/Switch.

2. Operation:

Select desired altitude on Air Data Display or PFD and then enable **Altitude Alerter function**. Press Altitude Preselect Switch, lower **ARMED**-indication field is lighted blue. Altitude Preselect Mode is now engaged. When the preselected altitude is reached, the system automatically activates the Altitude Hold-Mode at this altitude. The **ARMED**-annunciation extinguishes and the **ALT**-indication within the AP system is **ON**.

3. Dimensions



4. Block Diagram

Air Data Display /
 Altimeter w. Altitude-Alerter



PFD's w. Alt.-Alerter

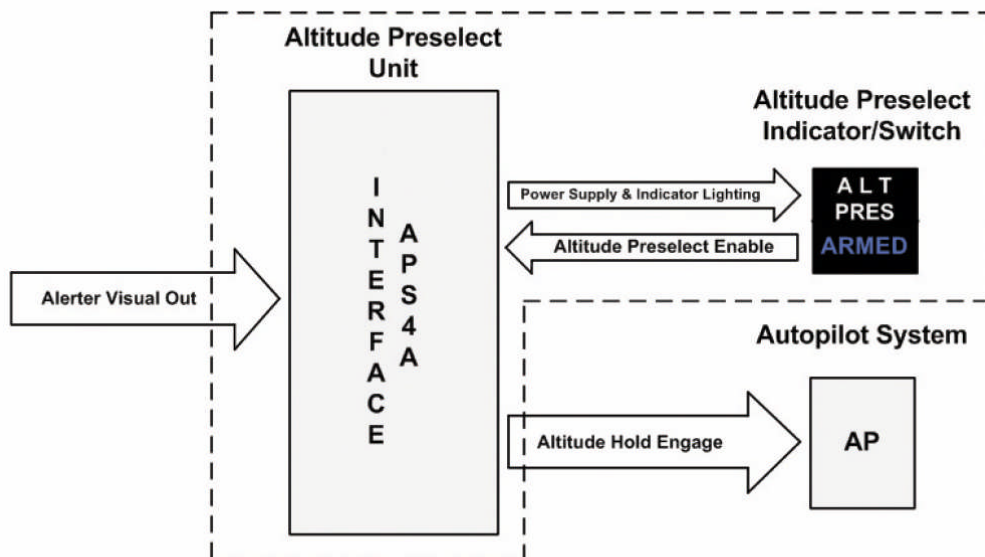


GARMIN G600



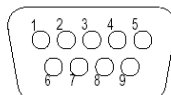
ASPEN Avionics
 PFD1000

Altitude Preselect Interface System APS4A



5. Pin Assignment

Pin	Assignment
1	Relay NC
2	Relay C
3	Relay NO
4	28VDC Lighting
5	Indicator Lighting ARMED (28VDC or GND to Ind./Switch)
6	Altitude Preselect ARM (moment. GND, enable from Indicator/Switch)
7	HI or LO from Altimeter when reached preselected Altitude
8	GND
9	10 to 32VDC Power Supply (internal straps for 14/28VDC operation)



Connector: D-sub Size 9pin

6. Technical Specification

Supply Input	
Supply Voltage Range:	11 to 32 Volts DC
Current Consumption:	max. 0.150 Ampere
Signal Input	
Preselect Input:	Active LOW
Altitude Hold Input:	HI or LO
Output to Indicator	
Output Voltage:	28VDC or GND (depends on switch configuration)
Output Current:	0.05 Ampere
Autopilot Output	
Relay Contact:	momentary or continuous contact 1 Ampere resistive
Mechanical characteristics	
Connector:	D-Sub Size9 / 9PIN
Weight:	250g
Dimensions:	105 x 72 x 39 (L x W x H)
Mounting:	4 ea. Screws 3.5mm or 6/32"
Cooling:	Cooling not required

7. Environmental Qualification according RTCA DO-160F

Section	Description	Category	Requirements
4	Altitude:	D2	50,000ft max.
4	Temperature:	D2	-55°C to +70°C
6	Humidity:	B	95% RF max
7	Operational Shock:	B	11g
7	Crash Safety:	B	20g
8	Vibration:	R,S	10g rms
16	Power Input:	B	see DO-160F
17	Voltage Spike:	A	see DO-160F

Env. Cat. [D2]ABB[R(B3)(B4)S(M)]XWXXXXZ[BXX]AB[ZC]WL[A3C3X]XXAX