



MD302

## SAM<sup>®</sup>

### 2-inch Standby Attitude Module

Manufactured by Mid-Continent Instruments and Avionics

SAM<sup>®</sup> IS THE FIRST DIGITAL, 2-INCH STANDBY ATTITUDE MODULE WITH A UNIQUE TWO-SCREEN DISPLAY.



Small size and selectable orientation allow for flexible cockpit design and installation.

[flySAM.com](http://flySAM.com)

SAM<sup>®</sup> is a solid-state instrument that displays attitude, altitude, airspeed, slip, vertical trend, and heading information to the pilot during normal or standby operation in the event of primary instrument failure.

SAM features a rechargeable Nanophosphate<sup>®</sup> lithium-ion battery that provides up to one hour of operation in the event of aircraft electrical power failure.

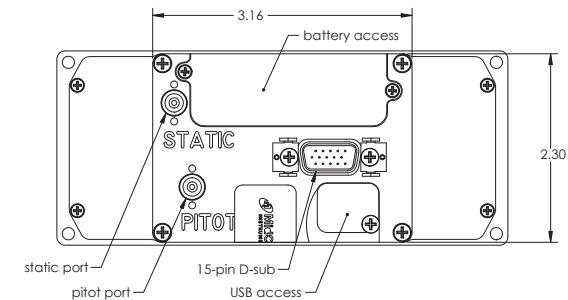
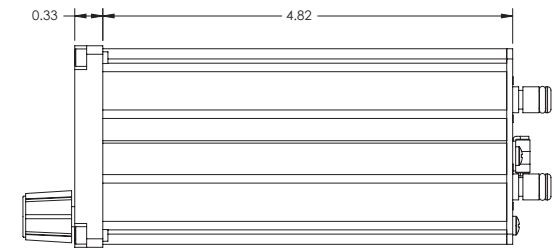
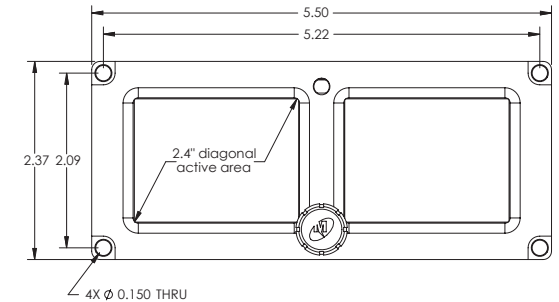
- Attitude, altitude, airspeed, slip, and vertical trend indication
- Displayed heading via ARINC 429 input
- Five primary functions utilize modern solid-state MEMS gyro, accelerometer and pressure transducer technology
- Small 2.4" x 5.5" footprint
- Extremely lightweight – 1.6 lbs
- Self-contained, rechargeable Nanophosphate<sup>®</sup> lithium-ion emergency battery
- Smooth, high-definition graphics
- Unique two-screen display with wide viewing angles and a user-friendly menu structure
- Selectable orientation – horizontal and vertical
- Aircraft-specific, programmable airspeed range markings
- Configurable for static source error correction (SSEC)
- Simple user interface – one knob configures the display and provides menu control
- 10–32 VDC power input
- External, automatic and manual dimming control settings
- Software configurable lighting curves
- Field-upgradable software via standard USB port
- Designed and built in Wichita, Kansas, USA
- Two-year or 2,000-hour warranty

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### SPECIFICATIONS

Power Input	10–32 VDC; 6W nominal, 25W max						
Output	ARINC 429 (high or low speed, see manual for specific labels)						
Operating Range	<table border="0"> <tr> <td>Attitude</td> <td>300° per second pitch, roll and yaw (max)</td> </tr> <tr> <td>Altitude</td> <td>-1,500 to +55,000 ft (-457 to 16,764 m)</td> </tr> <tr> <td>Airspeed</td> <td>20 to 500 knots (23 to 575 mph) (37 to 926 kph)</td> </tr> </table>	Attitude	300° per second pitch, roll and yaw (max)	Altitude	-1,500 to +55,000 ft (-457 to 16,764 m)	Airspeed	20 to 500 knots (23 to 575 mph) (37 to 926 kph)
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Altitude	-1,500 to +55,000 ft (-457 to 16,764 m)						
Airspeed	20 to 500 knots (23 to 575 mph) (37 to 926 kph)						
Vertical Trend	6 second time frame						
Heading	Displayed via ARINC 429 input (external interface dependant)						
Units of Measure	<table border="0"> <tr> <td>Altitude</td> <td>Feet or meters</td> </tr> <tr> <td>Barometric Setting</td> <td>Inches of mercury, millibars</td> </tr> <tr> <td>Airspeed</td> <td>Knots, miles per hour or kilometers per hour</td> </tr> </table>	Altitude	Feet or meters	Barometric Setting	Inches of mercury, millibars	Airspeed	Knots, miles per hour or kilometers per hour
Altitude	Feet or meters						
Barometric Setting	Inches of mercury, millibars						
Airspeed	Knots, miles per hour or kilometers per hour						
Panel Tilt	Configurable -90° to +90° pitch						
Panel Roll	Configurable -5° to +5° roll						
Lighting	5, 14 or 28 VDC external input or internal photocell Programmable dimming curve						
Pilot Interface	16-detent, push and turn knob						
Weight	1.6 lbs (0.73 kg)						
Battery	Rechargeable, field-replaceable, internal battery (P/N 6420302-1, 6420302-4 only) Technology Nanophosphate <sup>®</sup> lithium-ion Run time 60 minutes minimum when fully charged and properly maintained						
Mounting	Front panel mounted						
Mating Connectors	Mid-Continent P/N 9017646 kit contains custom DB15 connector with configuration module, pitot and static connectors						
Certification	FAA TSO certified to C2d, C3e, C4c, C10b, C106, C113a, C179a ANAC TSO certified to C2d, C3e, C4c, C10b, C106, C113a, C179a EASA ETSO certified to C2d, C3d (incomplete), C4c, C10b, C106, C113, C179a RTCA DO-178B and DO-254 Design Assurance Level (DAL) A RTCA DO-160 and RTCA DO-311 qualified						



PART NUMBER	BEZEL	BATTERY
6420302-1	Black	Yes
6420302-2	Black	No
6420302-4	Gray	Yes
6420302-5	Gray	No