REIMAGINE AIRCRAFT FLIGHT INSTRUMENTATION - GARMIN GI 275

News / Manufacturer

A powerful electronic flight instrument that directly replaces legacy primary flight instruments in the cockpit - Garmin International Announced GI275. The GI 275 is suitable as a direct replacement for a variety of instruments including, an attitude indicator, attitude directional indicator (ADI), course deviation indicator (CDI), horizontal situation indicator (HSI) and engine indication system (EIS). Capable of serving as a 4-in-1 flight instrument, the GI 275 can also be installed as a standby to a number of glass flight displays and is available with a 60-minute back-up battery. Lightweight and compact, the GI 275 is intentionally designed to take advantage of the common 3.125-inch flight instrument size, reducing installation time and preserving the existing aircraft panel. It's also compatible with a variety of third-party autopilots and does not require a separate interface adapter, further reducing installation labor. The GI 275 has received Federal Aviation Administration (FAA) approval and is available immediately for installation in over 1,000 single-engine and multi-engine aircraft models.

Several variants of the GI 275 are available to meet the needs of over one thousand business and general aviation aircraft models. Features beyond the traditional display of attitude, airspeed and altitude include the option to display CDI, HSI, and engine

information. The GI 275 is also capable of displaying multifunction display-like features, such as traffic, weather, terrain, SafeTaxi® airport diagrams, optional Synthetic Vision Technology (SVT™) and more1.

“As constant innovators within the avionics industry, we’re redefining the aircraft cockpit with the introduction of the GI 275,” said Carl Wolf, vice president of aviation sales and marketing. “With the GI 275, pilots can take an economical and scalable approach to their avionics upgrade, while saving on the installation labor and cost. The capabilities of the GI 275 are amazing – it can provide ADAHRS, autopilot interface and replace ADI, HSI, standby and EIS indicators, along with 60-minutes of battery back-up for primary or standby applications, or it can just be the coolest-ever CDI. If it’s round and in their panel, pilots can likely replace it with the GI 275 to receive modern flight display features and benefits in a powerful, yet compact touchscreen flight instrument.”

Suitable as a replacement to many aging flight instruments and gyro-based attitude indicators on the market such as the popular KI-256, the GI 275 gives aircraft owners the benefits of a modern and reliable flight instrument. The GI 275 boasts a standard 3.125-inch form factor and rear-mount design that minimizes panel modification. Its bright, high-resolution touchscreen display and wide viewing angle offers superior readability in the cockpit. A dual concentric knob allows pilots to access a variety of key functions within the flight instrument, such as adjustments to the baro setting or the airspeed bug. Highly scalable, aircraft owners can start with a single GI 275 and add up to a total of six in a single panel, paving the way for incremental upgrades and an array of individualized panel configurations.

Primary attitude indicator

When installed as a primary attitude indicator, the GI 275 offers improved reliability, potential weight savings and reduced maintenance compared to failure-prone vacuum-driven attitude indicators. When the GI 275 serves as primary for attitude information, pilots can also view altitude, airspeed and heading2 on the instrument. Optional SVT overlays a rich, 3D topographic view of terrain, traffic, obstacles, airport sign posts and more all within the GI 275 attitude display. The GI 275 also overlays a flight path marker within the SVT view, which takes into account crosswind, angle of attack and other factors to show precisely where the aircraft is flying.

The 4-in-1 GI 275 flight instrument is also approved for installation as a dedicated standby flight instrument to Garmin glass flight displays and is capable of serving as a back-up to a variety of third-party flight displays on the market. When installed as a standby to the G500 TXi, the GI 275 is capable of displaying additional multifunction display features. For back-up navigation information, a built-in VFR GPS enables convenient direct-to navigation guidance, displaying aircraft position information on a moving map. In installations where the GI 275 is installed as a primary or standby flight instrument, a 60-minute back-up battery is included.

Course Deviation Indicator (CDI) & Horizontal Situation Indicator (HSI)

When installed as a CDI or HSI, the GI 275 is designed to accept a variety of GPS or navigation inputs, allowing up to two GPS sources and two VHF navigation sources. The GI 275 features an Omni Bearing Resolver that allows the flight instrument to interface to a variety of legacy navigators on the market without the need for an expensive adapter. With an optional magnetometer, it is also capable of providing magnetic-based HSI guidance. Vertical and lateral GPS, VOR/LOC and glide slope deviation can be viewed on the GI 275. CDI source selection can be accomplished through the touchscreen interface, while course and heading selection is completed using either the touchscreen or dual concentric knob. When pilots replace an older mechanical CDI or HSI, the GI 275 doubles as a modern digital indicator and adds MFD-like

capabilities such as a moving map, weather, traffic and terrain.

Suitable as a replacement to display primary engine information

When configured as primary to display engine information, the GI 275 is capable of interfacing with single-engine and multi-engine normally aspirated or turbocharged aircraft with select powerplants, including Lycoming and Continental 4/6-cylinder engines. When the GI 275 replaces mechanical gauges and is configured as primary for engine information, the GI 275 can display RPM, manifold pressure, oil pressure and temperature, cylinder head temperature (CHT), exhaust gas temperature (EGT), turbine inlet temperature (TIT), fuel flow, fuel quantity, fuel pressure, volts and amps. Lean assist functionality is also available so pilots can choose to operate rich of peak or lean of peak. The GI 275 also features exceedance alerting, allowing installers to configure caution and warning alerts per the Pilots Operating Handbook (POH). Advisory alerts such as “high oil temp” or “high CHT” can be configured by the pilot. These exceedances, as well as additional engine data can be shared wirelessly with the Garmin Pilot™ app on Apple mobile devices and can also be viewed on the flyGarmin® website for post-flight analysis. In multi-engine aircraft, dual GI 275’s are required to display engine information.

Multifunction Display

Depending on the configuration and installation, the GI 275 is capable of displaying additional page functions and features beyond a traditional flight instrument. These features can include:

- A multifunction display (MFD) with a moving map can display terrain, obstacles, traffic, weather, airspace information, airways, and more.
- When interfaced to a GTX™ 345 or GNX™ 375, traffic information can be displayed on the dedicated traffic page or moving map. Patented TargetTrend™ relative motion technology and pop-up traffic alerts further enhance situational awareness.
- The GI 275 can also be interfaced to a variety of traffic systems, including select Traffic Advisory (TAS) and Traffic Alert and Collision Avoidance Systems (TCAS). Traffic advisories are displayed on the dedicated traffic page and moving map.
- SafeTaxi airport diagrams display runways, taxiways, Fixed Based Operators (FBO’s), hangars and more relative to the aircraft’s location on the airport surface.
- Terrain shading incorporates yellow and red contouring depicting the aircraft is 1,000 and 100 feet above ground level (AGL) respectively. Terrain information, as well as obstacle and WireAware™ database information can be viewed on the terrain and map pages.
- The GI 275 uses its internal terrain and obstacle database to provide audible and visual terrain proximity alerts, including, “terrain ahead, pull up” and “obstacle ahead, pull up.”
- When paired with the GDL® 69 datalink receiver, the GI 275 is capable of displaying SiriusXM Aviation Weather. It can also display Flight Information Service-Broadcast (FIS-B) weather from either a GTX 345 or GNX 375.
- An airport information page displays a variety of information, including frequencies, runway dimensions and more.
- The GI 275 can be paired with the GRA® 55/5500 and other third-party products to display a radar altimeter on a dedicated page. Visual and aural annunciations are also available.
- The GI 275 is compatible with the GFC™ 600 autopilot, as well as an array of third-party autopilots and can replace the primary attitude indicator installed with these autopilots. GFC 500 compatibility is expected later this year.

Built-in Wi-Fi® enables Database Concierge, the wireless transfer of aviation databases to the GI 275. Pilots also have the option of transferring databases to the GI 275 using a USB flash drive and the GSB 15 USB charger. Databases can also be synced among multiple GI 275 flight

instruments in a single cockpit. When configured to display engine information, the GI 275 can wirelessly send engine data to display within the Garmin Pilot app on Apple mobile devices. This data is also automatically synced and can also be viewed on the flyGarmin website. Wireless flight plan transfer via Bluetooth® is available when the GI 275 is paired with a GPS 175, GNC 355 or GNX 375. Additional wireless functions include the sharing of GPS position and back-up attitude information with Garmin Pilot.

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