

DK-406-DT Second-Generation Beacon

Distress Tracking Emergency Locator Transmitter (ELT-DT)

**Second-
Generation
Beacon**



Meets the Global Aeronautics Distress Safety System (GADSS) Requirements

Dukane Seacom's new DK-406-DT is the first of its kind Second-Generation Beacon (SGB) ELT-DT designed for use with the new worldwide Search and Rescue satellite network. TSO-authorized to TSO-C126c, the DK-406-DT is a crash-survivable distress tracking ELT that was designed for in-flight distress tracking and automatic in-flight triggering. Meeting current and future ELT requirements, the DK-406-DT includes improvements standard in the Dukane Seacom's AeroELT product line including:

Safety – The DK-406-DT safely contains a thermal runaway event of the internal lithium-ion batteries with no venting in compliance with DO-227A.

Reliability – The DK-406-DT flame-resistant design includes an aluminum housing and fire-shielded transmit cable that improves performance in case of extreme heat or fire. The direct-mounted housing ensures crash safety and accurate triggering just as the robust system interconnects improve equipment durability.

Accuracy – A multi-axis MEMS device is used to automatically detect impact, improving trigger reliability over traditional "G-Switch" triggers.

A self-contained GNSS receiver provides enhanced search and rescue capability to quickly locate any aircraft in distress worldwide.

KEY FEATURES

- > TSO-C126c and TSO-C142b authorized
- > Meets GADSS requirements for automatic in-flight triggering
- > Second-generation beacon transmission compliant with COSPAS-SARSAT requirement T.018
- > Significantly improved Search and Rescue response time
- > Meets DO-227A requirements for thermal runaway containment with no venting
- > Robust aluminum housing with military-grade connectors
- > Ultra-reliable MEMS crash sensor
- > Meets Class 1 ELT requirements
- > Self-contained GNSS receiver
- > Installation flexibility with configurable trigger axis
- > 121.5 MHz homing transmission
- > Fire-shielded transmit cable



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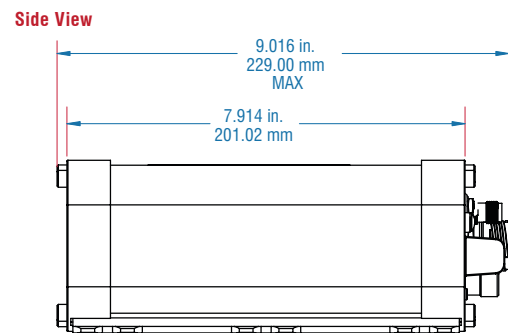
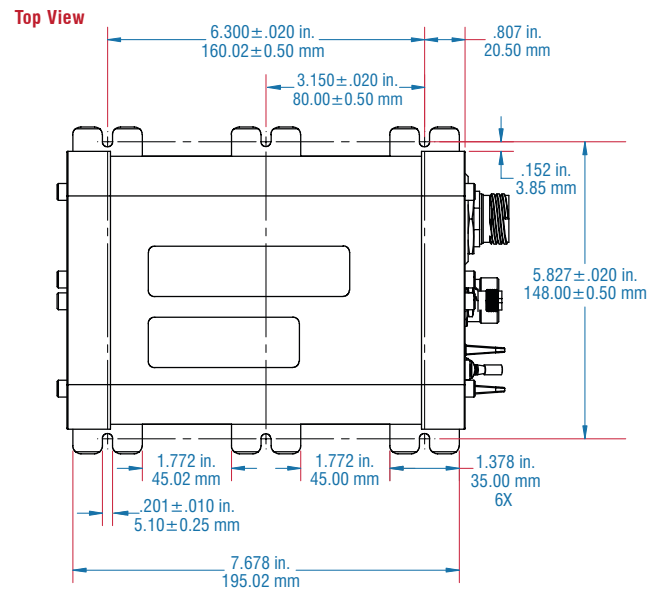
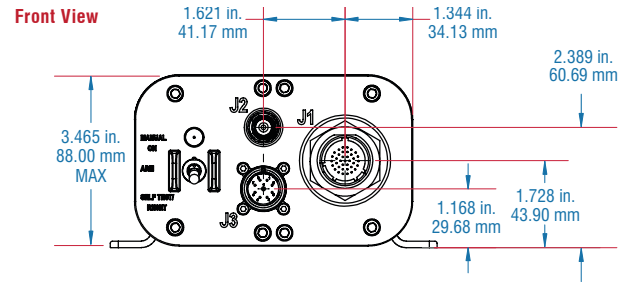
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SPECIFICATIONS

Operating Frequencies and Power	406.05 MHz distress signal at 37dBm ±2dBm 121.5 MHz homing signal at 18 to 21dBm Transmitter output terminated into a 50Ω load System (transmitter + cable + antenna) EIRP compliant with COSPAS-SARSAT requirements in T.018
Operating Life	5-year battery life Indication provided when a battery change is required Distress signal transmission for up to 24h after activation Homing signal transmission for 48h after crash activation
Connectors	TNC connector for antenna connection 37-pin 38999 style interface connector for remote control, ATU interface, and maintenance functions 9-pin Aircraft Configuration Module (ACM) connector
Temperature	Meets requirements for a class 1 ELT Operational from -40°C to +55°C Storage from -55°C to +85°C
Autonomous Trigger Unit (ATU) Activation	GADSS-compliant ATU and ATU Enable inputs, allowing in-flight triggering from an ATU computer ATU trigger sources via configurable A429 interfaces and discrete inputs
Signal Type	Second Generation Beacon (SGB) transmission compliant with COSPAS-SARSAT requirements in T.018
GNSS Location	Self-contained GNSS receiver, supporting L1 GPS and E1B/C Galileo (Return Link Service supported) Global position encoded into 406 MHz transmission
Remote Control	LED status and transmit indication Manual Activation/Self-Test/Reset switch
Weight	5.3 lbs (2.4 kg)
Antenna	Blade-style antenna available Antennas combine transmit and GNSS onto a single connector, requiring a single RF cable
Self-Test Activation	406 MHz and 121.5MHz Transmit Power and Frequency VSWR / Transmit Port Connection Low Battery Indication GNSS Status A429 Interface Status MEMS G-Switch Verification ACM Status



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