



BD406 & PBD406 Emergency Beacon Locator

Overview

The BD406 is a high-performance monitoring device that receives and decodes signals transmitted by emergency radios (ELTs for aviation use, EPIRBs for maritime use, and PLBs for personal use) during distress situations.

The beacon decoder BD406 is intended for immediate and direct detection of distress messages (transmitted on 406 MHz). It decodes the positions of radio beacons contained in the transmitted message and shows its relative position.

The BD406 is a single block device made for installations in fixed and rotary wing aircraft.

The BD406-(003) is a single block solution that can be installed in UAV or other remote applications.

The PBD406 is the portable version with its own battery, internal speaker, battery charger and inputs for RX and GPS antennas. It includes a BD406 single block device with control head.



BD406
Single Block Beacon Decoder



BD406-(003)
Remote device without control head



PBD406
Portable Beacon Decoder

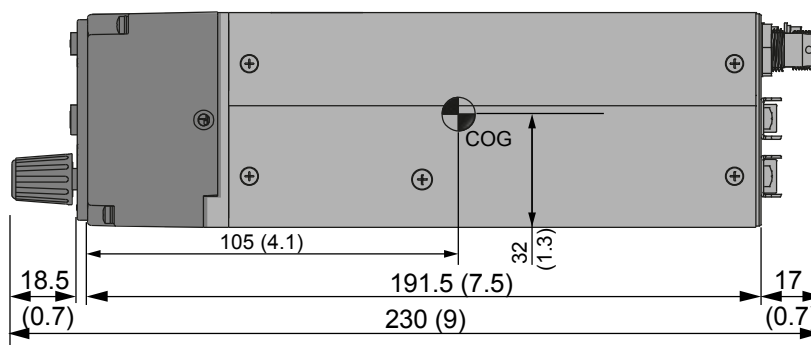
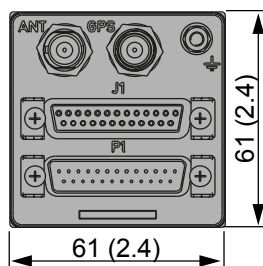
Features

- Direct navigation mode toward the position of the distress beacon
- Complementary solution to existing homing systems without 406 MHz detection capability
- Portable or panel mount 2 ¼ inch design
- Highly sensitive decoder to receive distress signals over long distances and in adverse conditions
- Displays the exact position and identity of the beacon.
- Optional for use as a SAR monitoring system for airport services.
- Real-time 406 MHz beacon monitoring by scanning up to 16 channels
- Displays 406 MHz frequency and decodes the full distress message
- Indicates the elapsed time since last message was received in seconds
- Computes and indicates via GPS the navigation route to the emergency beacons
- Tracks and identifies each target (up to 49 targets) and displays the 15 digit C/S Hex ID code
- Qualified according to DO-160D standard
- NVG-friendly backlit display (option)
- ARINC 429 output (BD406 only)
- BD406 also available as remote device without control head
- Wide range of accessories:
 - Antennas
 - Mounting, carry equipment e.g. for car mounting



Technical Data

BD406 / PBD406	Specifications
Nominal voltage	BD406: 9...32 VDC PBD406: 9...36 VDC (nominal external supply voltage) 12 VDC (battery voltage - nominal)
Dimming control	BD406: 14 VDC or 28 VDC
Frequency range	406.020...406.081 MHz
Temperature compensated VCO long term stability	≤ ±5 ppm after 10 years BD406: at temperature range -40...+85 °C PBD406: at temperature range -15...+50 °C
Display	Graphic 128x64 dots - LCD, white or NVG compatible backlight
Operating temperature (as per RTCA DO-160E)	BD406 with control head: -15...+55 °C (short-time -40...+70 °C) PBD406: -15...+50 °C
Operating altitude (as per RTCA DO-160E)	BD406: 15000 ft PBD406: n/a
Vibration (as per RTCA DO-160E)	BD406: Fixed wing Category S (Curve M) Rotary wing Category U (Curve G) PBD406: n/a
Receiver data	
COSPAS/SARSAT analysis	Reception, analysis, correction of COSPAS/SARSAT data signal
Modulation (data encoding)	Biphase L-phase +1.1 / -1.1 rad
Bit rate	400 bps ± 1%
Digital messages	Short Message 112 bit Long Message 144 bit
Sensitivity	-104...0 dBm @ 50 Ω
Dynamic range	-104...0 dBm
Nominal impedance of antenna input	50 Ω
Absolute max. input power at antenna input	+30 dBm
Interfaces	RS232, RS422, ARINC 429
Weight	BD406 with control head: ≤ 700 g (1.54 lb) PBD406: ≤ 3700 g (8.16 lb)



Single Block Beacon Decoder with Control Head

Dimensions mm (inch)

