



BECKER SEARCH AND RESCUE

EMERGENCY BEACONS AND DIRECTION FINDERS



SAR-ADF 517

■ Becker Avionics has been a leader in SAR-Technology for over 40 years. Military and civilian organizations around the world currently rely on homing equipment and PLBs supplied by Becker.

Conventional homing equipment and DF's no longer fulfill today's rescue requirements; therefore Becker has developed its new direction finder, the SAR-DF 517.

In addition to the conventional 121.5 MHz, 243 MHz and 156.8 MHz (maritime Ch 16) SAR frequencies, Becker's new SAR-DF 517 also receive the 406 MHz COSPAS/SARSAT satellite emergency frequency. This frequency transmits a 450 milliseconds digital pulse every 50 seconds, too short to secure a lock on conventional DF's; however, the new SAR-DF 517 is designed to lock on this short burst.

During the 49.5 second space between pulses of a 406 MHz signal, The SAR-DF 517 can be set to scan two other emergency frequencies for a continuous signal.

In addition to the standard emergency frequencies, the SAR-DF 517 can also receive training frequencies or other frequencies within its receiver's bandwidth.

Receiver hardware for the SAR-DF 517 is contained in a remote pot-like antenna mounted on the under side of a helicopter, aircraft or on top of a vehicle. A separate display and control unit is installed in the instrument panel.

The antenna receiver unit of the SAR-DF 517 can also be integrated with Becker's "AirScout" GPS-based moving map navigation system. The locator beam will then be displayed as an overlay on the screen of the AirScout. ■

BECKER
AVIONIC SYSTEMS

BECKER SEARCH AND RESCUE SYSTEMS

Technical Data

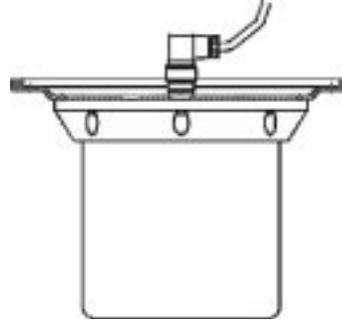
Electrical characteristics

- > Method of bearing: Doppler-principle (frequency of rotation 3kHz, cw / ccw)
- > Accuracy: $\pm 5^\circ$ RMS
- > Sensitivity: $< 5 \mu\text{V/m}$ (Depending on working frequency)
- > Emergency frequencies: VHF 121.500 MHz;
156.800 MHz;
UHF 243.000 MHz;
406.025 MHz;
406.028 MHz
- > Training frequencies: VHF 118 ... 123 MHz;
156 ... 158 MHz;
UHF 240 ... 246 MHz;
400 ... 410 MHz.
(all with 25 kHz steps)
- > Modulation type: A3E, F3E, A2X
(ELT-modulation);
DF is largely independent on modulation kind
- > Polarisation: Vertical
- > Polarisation error: $\leq 5^\circ$ at 60° vectorial field rotation
- > Cone of confusion: Approx. 30° measured to the vertical
- > Signal Capture Time: ≤ 50 ms
(at sufficient signal strength)
- > ELT-Identification: by direction of audio sweep tone, frequency range [300Hz .. 1600Hz]
repetition rate [250ms .. 500ms]

- > Operating voltage: 12 V-32 DC
- > Current consumption: 400 mA

Mechanical characteristics

- > Temperature range: operating: $-20^\circ\text{C} \dots +60^\circ\text{C}$
storage: $0 \text{ to } 150^\circ\text{C} \dots +70^\circ\text{C}$
- > Weights:
Display unit: approx. 250 g
0,551 lbs
DF antenna: approx. 2000 g
4,41 lbs
- > Dimensions:
Display and control unit: 82 x 82 x 35 mm (WxHxD)
3,23"x 3,23"x 1,38"
DF antenna: Diam. 270 x Length 185mm
10,6" x 7,29"



Direction finder antenna with receiver unit



Becker Avionics, Inc.
10830 NW 27th Street
Miami, FL 33172
Phone 305-597-0069
Fax 305-597-8737
Toll free 1-887-56-BECKER
<http://www.beckerusa.com>

BECKER
AVIONIC SYSTEMS