

BECKER NAV

NAVIGATION



VOR/ILS System NAV 900 (NR 900 + CU 900)

■ The Becker VOR/ILS NAV 900 System is designed for larger fixed and rotary wing-type aircraft.

Certified by the German authority for civil aviation LBA under JTSO no. LBA.O.10.922/89, the NR 900 VOR/ILS Receiver fulfills the newest requirements of ICAO-Annex 10 for FM immunity.

The NR 900 VOR/ILS Receiver and with its Control Unit CU 900 are especially developed to retrofit the (worldwide in-use) Collins Receiver 51RV-1C and 313N-2 Control Unit.

The Becker NR 900 incorporates frequency-control via Standard ARINC-410 parallel or ARINC-429 serial data bus. Integrated BITE function, i.e. power-on test (P-BIT), continuous test (C-BIT) and on-request test (I-BIT) assure proper function under all circumstances.

Together with the Control Unit Becker CU 900 or a special to-type test equipment (STTE) it is possible to locate failures down to modular level, thus dramatically reducing the mean-time between unscheduled removals (MTBUR). ■

BECKER AVIONIC SYSTEMS

■ Short data:

- VOR/LOC Frequency range 108.0 MHz 117.95 MHz
200 Channels, Channel spacing 50 kHz
- GS Frequency range 329.00 MHz 335.00 MHz, 200 Channels, Channel spacing 50 kHz
40 Channels, Channel spacing 150 kHz
- Frequency control ARINC 410. 2 out of 5 Code
- Standard ARINC instrument signals
- VOR Resolver mode 30 Hz or 400 Hz pin programmable.
- VOR Bearing Signal, 3 Wire Synchro.
- MTBF >5000 h
- Housing ½ ATR short, ARINC 404A

■ General data:

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|-----------------------------|------------------|
| DC-Operating voltage | + 27,5 V nominal |
| DC-Current consumption | ≤ 1,2A |
| Operating temperature range | -55 ° ...+ 70 °C |
| Storage temperature range | -65 °...+ 85 °C |
| Max. altitude | 50 000 ft. |

■ Mechanical data:

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| Housing | ARINC 404A; ½ ATR short |
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■ VOR/LOC Receiver:

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|---------------------|--|
| Frequency range | 108,00 ...117,95 MHz |
| Channel spacing | 50 kHz |
| Number of channels | 200 |
| Sensitivity | ≤ -93 dBm for 6 dB (S+N)/N |
| Selectivity, 50 kHz | ≥ 65 dB |
| FM Immunity | in accordance with ICAO Annex 10 and LBA 15/-602.2/11/94 |
| AF-output power | 100 mW into 600 Ω balanced. |

■ Manual VOR Systemfunction:

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| Sensitivity | ≤ -93 dBm |
| Course error | ≤ 2,5 ° |

■ Automatic (RMI) Systemfunction:

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| VOR -Bearing output signal | Standard 3-wire synchro signal 11,8-V-/ 400 Hz max.5 Stand.-Synchro. |
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■ Systemfunction GS:

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|-------------------------|-------------------------|
| Frequency range | 329...335,00 MHz |
| Channel spacing | 150 kHz |
| Number of channels | 40 |
| Frequency response 6 dB | ≥ 20 kHz |
| Selectivity | ≥ 42 dB at Δf ± 150 kHz |
| Sensitivity | ≤ - 80 dBm |
| Center error | ≤ 5%Stand.deflection |

■ MTBF:

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| NR 900-() | > 5000h |
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■ Certification and Regulations:

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|--------------------|---------------------|
| LBA Certification | LBA.O.10922/89 JTSO |
| BAPT Certification | A 131839 J |

■ Requirements:

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|---------------------|--|
| RTCA DO-192 | JTSO - C34e |
| RTCA DO-195 | JTSO - C36e |
| RTCA DO-196 | JTSO - 2C40c |
| EUROCAE MPS1/WG7/70 | JTSO - 2C35d |
| BAPT | FTZ 17 TR2010 |
| Software | EUROCAE/RTCA ED-12B/DO-178B LevelC |

■ Environmental categories:

D2-A(MN)XXXXXXZBABAVAXXX in accordance to
EUROCAE/RTCA ED-14C/DO-160 C