

D5 SERIES | RADIOMODEM



The D5 Series are radiomodems with RS232 and RS485 serial connections, configurable by software, either remotely or locally, on the fly by DTE. The devices are complete with one optically isolated digital input, and one relay output that can be used for radio transmission of signals and alarms.

OPERATING BAND

Our D5 Series radiomodems operate in the European free-use bands, according to ERC 70-03. The D310 model operates at 169MHz, the D320 model operates at 433 MHz and the D340 model operates at 868 MHz

OPERATIONAL FUNCTION

4 operating modes that are software programmable: mirror point to point, point to multipoint, broadcasting, and digipeater-- which allows multipath data routes, to ensure data delivery.

LOW POWER

The Low power design along with the power saving function, allows for extended battery life.

CONSTRUCTION

Enclosure options allow the D5 Series to be located indoors or outdoors (IP66/IP68) and explosion proof ATEX and IECEx certified.

Optional antenna configurations can improve radio transmissions where radio coverage is critical.



ERE
WIRELESS

D5 SERIES | RADIOMODEM

NOMENCLATURE & ACCESSORIES D5 4 0 - 2 1 1 E 00

a b c d

a Frequency

- 1 VHF 169 MHz
- 4 UHF 868 MHz

b Interface

- 2 1 digital input, 1 digital output, serial port RS232 and RS485

c Enclosure

- 1 Alluminum IP44
- 2 Alluminum IP44 suitable for DIN rail
- A Alluminum IP66/68, 3 cable entries M20x1.5
- B Alluminum IP66/68, 3 cable entries M25x1.5

d Antenna

- 00 without antenna
- 01 $\lambda/4$ 169MHz (BNC)
- 02 $\lambda/4$ short 169MHz (BNC)
- 04 $\lambda/4$ 868MHz (BNC)
- 20 $\lambda/2$ (dipole, vertical) 169MHz (5 mt, BNC)
- 22 $\lambda/2$ (dipole, vertical) 868MHz (5 mt, BNC)
- 40 Yagi 3 elements 169MHz (10 mt, BNC)
- 42 Yagi 6 elements 868MHz (10 mt, BNC)

FEATURES

GENERAL

Operating band

D510 series

169.400 - 169.475

D540 Series

868-868.6

868.7-869.2

869.4-869.65

Channel number

1 @ CH50 kHz

3 @ CH25 kHz

6 @ CH12.5 kHz

26 @ CH50 kHz

54 @ CH25 kHz

Canalization

12.5 - 25 - 50 kHz

25 - 50 kHz

Modulation

9K00F1D or 18K0F1D

Frequency stability

± 2 ppm

± 1 ppm

Radio data rate (Tx/Rx)

4800 bps @ 12.5 kHz - 9600 bps @ 25 kHz - 19200 bps @ 50 kHz

Supply voltage

9-32 VDC

Consumption (@12VDC)

Rx ≈ 30 mA | Tx ≈ 200 mA

Consumption SLEEP mode

< 150 μ A @ 12VDC

Digital outputs ratings

24VAC@0.5A - 32VDC@1A (normally open)

Digital input

5-24VDC - 3.5-20VAC Z_{INP} 2.2 k Ω (optoisolated)

Memory buffer

1024 bytes

TRANSMITTER

Output power

25 - 150 - 500 mW

25 - 150 - 500 mW

Frequency deviations

± 1.8 kHz @ 12.5 kHz

± 3.6 kHz @ 25 kHz

± 4.8 kHz @ 50 kHz

Output power stability

± 1.5 dB

RECEIVER

Sensibility @ BER < 10⁻²

CLASS 1 - LBT and AGILITY

< -105 dBm @ 50 kHz

< -107 dBm @ 25 kHz

< -110 dBm @ 12.5 kHz

CLASS 2 - LBT and AGILITY

< -105 dBm @ 50 kHz

< -107 dBm @ 25 kHz

INTERFACE

Data rate

RS232 and RS485

Data format

from 1200 to 57600 bps

Operative modality

Asynchronous 8,N,1 - 8,E,1 - 8,O,1 - 7,E,1 - 7,O,1 - 7,N,2

Simplex or half-duplex

Operating temperature

-30°C +70°C

Overall dimension

100x90x40 mm

Weight

210 gr



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