

PWM-150A / PWM-450A

UHF / VHF Radiomodem with Serial Interface



The PWM-150A (VHF-Version) and the PWM-450A (UHF-Version) are easy to use Radio Data Modems for protocol-transparent point to point as well as point to multi point analog radio transmissions. The units provide all functions needed to communicate with almost any standardized and non-standardized M2M communication protocols and can be used as a centralized (Control Room) modem and also as a substation device. It has one RS-232 (Optional RS-485/RS-422) serial interface operating at 9600 BPS with a CTS control line and needs a power supply of 12 Volt DC.

The radio signal is FFSK modulated and the RF baud rate can be chosen as 1200 BPS or 2400 BPS.

Function:

The PWM can receive up to 1000 Bytes serial data from a Computer or PLC and will be stored inside the device in a transmit buffer as long as serial data is still received. After a timeout gap of ten serial character length (10 mS) the CTS-Line will be activated, avoiding further data being transmitted from the external device. The unit then adds

header-, address- and synchronizing-data and a 24 Bit combined LRC / CRC check sum to the data and sends it over the radio channel. All radios within the coverage range that have the same "Radio Air Address" will decode the data and if the check sum is ok will transmit it over the serial interface.

Mechanical Design:

The unit is mounted in a metal box that can be wall-mounted or installed within a cabinet with 4 screws. On the top part four LEDs indicate the functions: Radio-Transmit, Radio-Receive, Power and OK.

The power supply as well as the serial data lines will be connected via a 15 pin (male) D-Sub connector and for the antenna (or an antenna cable) the unit provides an BNC-Type RF connector.

Device Configuration:

The PWM will be configured using the Windows PC-Configuration Tool "PWM-Config". It can be set to different predefined RF-frequencies, radio-modem "Air-Address" and the FFSK Radio baud rate.

PWM-150 / PWM-450 Technische Daten

Function:	UHF and VHF Radio Modem with serial interface
RF-Output Power:	Pout 10 mW up to 500mW, preset by Configuration: 10 mW 100 mW 250 mW 500 mW
Frequency Range: PWM-150 PWM-450	140 MHz - 175 MHz (three bands) 410 MHz - 470 MHz (three bands)
Interface: Control Line:	RS-232 or RS-485 / RS-422 CTS
Protocols:	Transparent
Power Supply:	12 Volt DC +/- 20%
Enclosure:	Metal Enclosure
Operating temperature:	-20 deg C up to +70 deg C
Mechanical Dimensions:	135 * 65 * 30 mm

