



User's Manual

MFSHL-BMTX Transmitter

1. DESCRIPTION

The MFSHL-BMTX is a transmitter/coder with an RF section that uses a Binary FSK Modulation with a frequency of 915MHz, 76800 Baud rate and 3% Duty Cycle.

The coder also works in cable control mode. When the coder detects a cable connection, no signal is given to the RF section. Instead, a CAN output is given to the cable.

Note: Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference that may cause undesired operation of the device.

2. TECHNICAL SPECIFICATIONS

Temperature Range	-20° to +70° Celsius
Supply Voltage Range	2-5 VDC
Supply Current	42mA max 28mA for 5 seconds on startup
Outputs	RF-Data 2 LED
Inputs	24 digital
RF Specifications	
Frequency	915.0 MHz
Modulation	Binary FSK
Deviation	64KHz
Output Power	5dBm

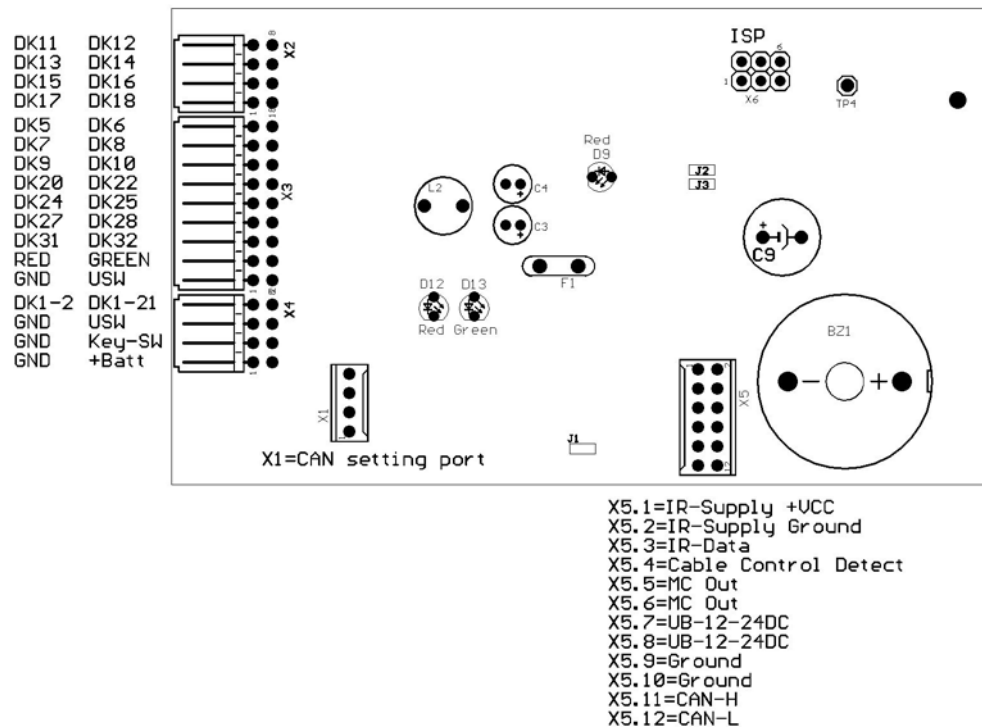
Note: The user is cautioned that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

3. FUNCTIONAL DESCRIPTION

3.1. Transmitter Operation

- The MFSHL-BMTX is capable of transmitting 24 DKs including DK32 and DK31. When E-Stop is activated, all DKs are OFF except for DK31.
- During Cable mode, when the main contact turns ON, CAN output will be activated.
- The DK1 can be used to reset the receiver from main contact error.

MFSHL-BMTX Connection Description



3.2. LED Description

3.2.1. CAN LEDs

Red LED

- Flashing –CAN power is on.
- Solid – CAN is connected to a CAN bus

Green LED

- Flashing – Valid telegram transmitted

3.2.2. System LEDs

Green LED

- Flashing – Transmission of telegram on RF
- On – Transmission of telegram in cable mode

Red LED

- Flashing – Transmission of telegram when battery is low.
- Flashing (alternate with Green) – Main contact error

Yellow LED

- Flashing – System is running (watch dog LED)

Green, Red, & Yellow

- Flashing at Startup – System is working

3.3. Buzzer Description

- 2 short beeps at Startup – System is working.
- Short beep every 5 seconds – Low Voltage Warning.
- Regular beeping – Battery failure.

3.4. Low Voltage Indicator

The Low Voltage Indicator has two levels of detection. The first is a pre warning that triggers when the battery is at 3.5V. At this time, the buzzer will begin to give a short beep every 5 seconds, and the LED will start blinking RED. When the battery voltage reaches 3.4 volts the buzzer will begin beeping regularly. After 30 seconds the transmitter will send two seconds of E-Stop telegrams and then turn off. Power must be cycled to turn on the unit again.

3.5. Test Mode

Short Jumper J3 to continuously transmit RF signal for testing.

