

Visonic
MCT-241MD
Low Data Rate Wireless Devices
Pendant Transmitter
Wireless Transmission Protocol

Revision 0.1
August 2004

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H e a d O f f i c e

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1 Introduction

The MCT-241 MD is low power wireless pendant transmitter. It is designed to transmit coded alert signals manually or automatically. It has been designed to be used with personal security systems such as Home Healthcare Security system.

2 Scope

This document describes the wireless protocol construction used with the MCT-241MD prepared for type approval testing.

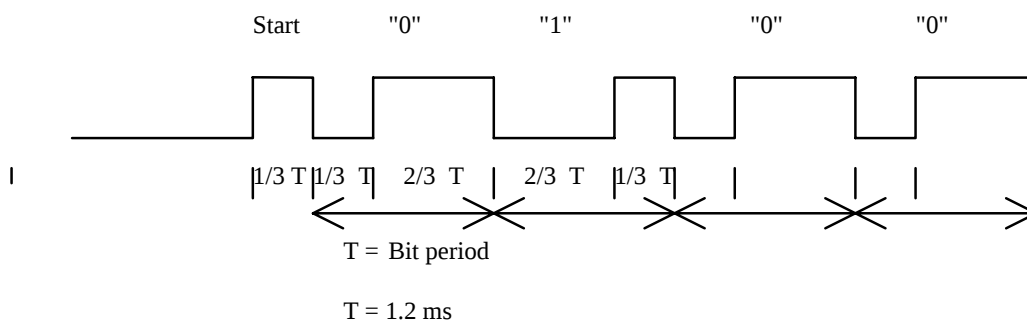
3 General

The MCT 241 MD is one-way transmission device with On Off Keying modulation. It is activated by pressing a push button or by tilting the transmitter more than 60°.

4 Protocol message construction

The MCT-241 MD initiates messages transmission in response to activation. The coding uses return to zero pulsed width code.

The following figure shows the start pulse and bit timing.

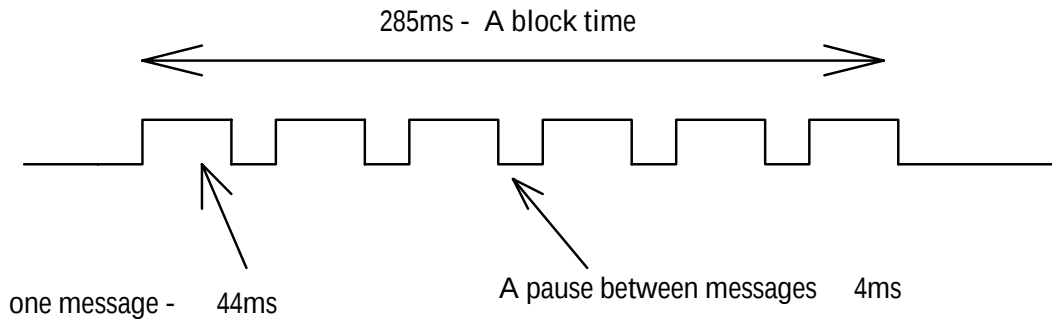


The message starts with a start pulse after a pause of at least $2T$ ($\geq 2.4 \text{ ms}$). The start pulse is of the duration of $1/3 T$ (0.4 ms), followed by the message bits (see figure).

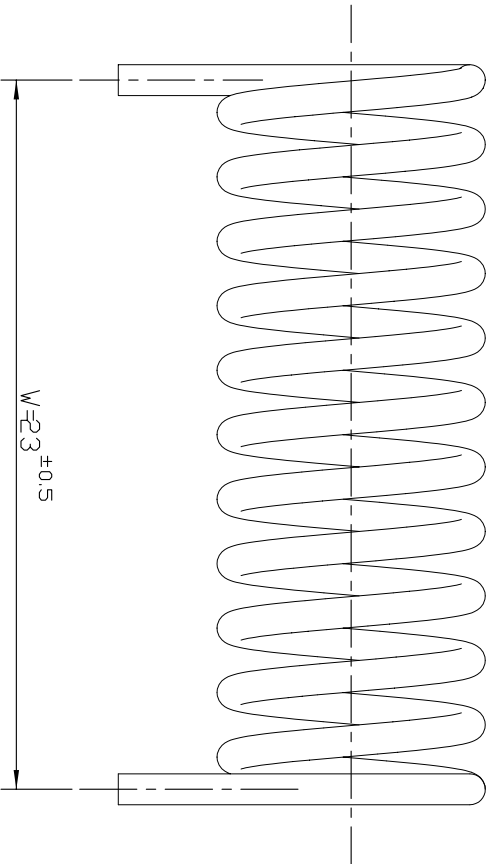
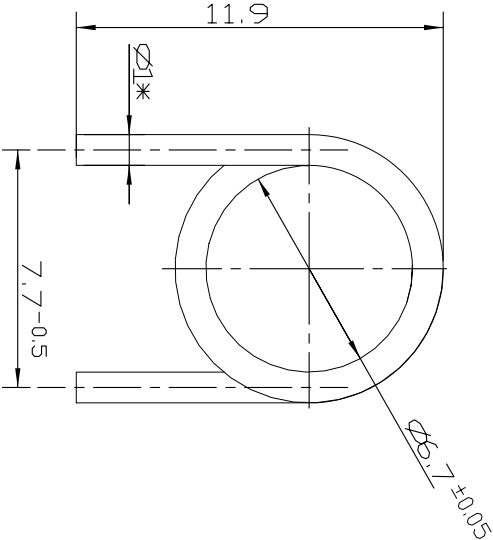
The end of the start pulse is used as time reference for the next bit, and the end of each bit is the reference for the next one.

Bit "0" is starting at $1/3 T$ from the end of the previous bit. Bit "1" will start transmission at $2/3 T$ from the end of the previous bit. The transmission stops always at the end of the bit period.

The messages are transmitted in repeated blocks. Each message block is composed of a burst of 6 identical messages, separated by 4 ms from each other - see figure below

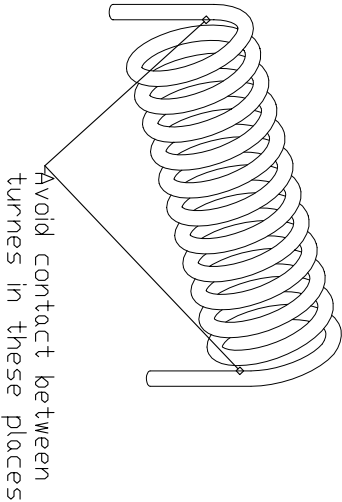


The blocks are transmitted six times. Each transmitted block is identical and there is a pause of 300ms between block transmissions.



SCALE 4.000

Ø WIRE	1.0
TURN S	11.5
W	23



NOTES:

- 1.Material:Spring steel wire 17223
- 2.The entire part is tin plated

				PRODUCT NAME: RPT-3 (315)				SCALE: 4:1		Upd.	REF
PART NAME: HELICAL ANTENNA 1.0x6.7x11.5				MATERIAL: SEE NOTE 1				0		ECO-7-168	
APX-1-3	NAME	DATE	SIGNATURE	MODEL REV.0	DDC. REV.3			1		ECO-7-466	
DESIGNED	Y.Rimon	11/02/97		CATALOG No. 25806512				2		ECO-8-1132	
CHECKED				DRAWING No. 25806512				3		ECO-9-983	
UPDATED	Z.Geskin	29/09/99		CAD FILE: 25806512.dwg				4			
APPROVED	I.Pinhas	29/09/99		SHEET #/of 1/1				5			