

FMT-302



The FMT-302(NL) is an updated model of the FMT-202(NL). The FMT-302(NL) has an improved transmission, which complies with American, Canadian and European radio frequency regulations.

The FMT-302(NL) is part of a two-channel remote control system. A few of its applications could be as:

- a remote control switching device for garage doors, lights, gates and automatic telephone dialer.
- a calling device for the elderly or handicapped.
- a personal security alarm activator for home safety or cash carrying businesses e.g. banks, shops service stations, etc.

The transmitter is housed in an attractive, high impact resistant grey ABS plastic case.

Pressing the designated switch on the front positively activates the transmitter. Activation is confirmed by the sound of its built-in buzzer.

TECHNICAL READING

The highest possible standard of performance is achieved by employing a crystal-controlled, frequency modulated radio signal operating in the 27MHz band. This is enhanced by a specially dedicated custom-built integrated circuit. The latest "state of the art" surface-mount technology (SMD) provides maximum reliability.

A 10-way code switch (part of the digital encoding system) is used. This enables the user to select any one of the 1024 available codes and thus ensure highest security against false operations. The eleventh switch is changed by pressing either channel A or B. The twelfth switch is on if a wire link is next to the code switch, if it is removed the twelfth switch is off. This is displayed on the back of the battery cover of the FMT-302(NL). The code can be readily changed at any time.

An operating distance (in conjunction with our FMR series receivers) of 500 metres is possible.

The operating distance depends upon the receiver antenna and location. An independent test revealed the following ranges:

Range (Metres)	Receiver Antenna	Receiver Type
100	250mm Long Wire	FMR
400	1000mm Long Wire	FMR
>500	ANT27M	FMR

Range tests were done in an open area test site with line-of-sight operation and the receiver antenna wire was fixed vertically, away from any metal objects.

When operating near its range limit, some improvements may be obtained by pointing the transmitter towards the receiver. This is due to its slightly directional properties.

The case of the transmitter has been designed to accept Elsema's leather covers. The leather covers have a belt clip.

TECHNICAL DATA

FMT-302	
Power Source	9 Volt Battery Carbon: approximately 1 year shelf life (6F22) Alkaline: approximately 2 year shelf life
Supply Voltage	6 to 16VDC (For constant RF-Output)
Current Consumption	40mA (Typical) at 8VDC supply while transmitting
Operating Frequency	27.145MHz (Other frequencies available on request)
Carrier Frequency Tolerance	Crystal controlled 30 parts per million (0 to 50 °C)
Radiated Field Strength	78.0dBµV/m at 3 metres (±3dB) or 3µ Watts
Antenna	Built in 50mm proprietary DILEC rod
Type of Emission	Narrow-band-width Frequency Modulation (5K00F1D)
Frequency Deviation	1600Hz non-return to zero (±20%)
Type of Modulation	Manchester format 1.08 ms per bit (15% tolerance)
Bits per second	926 bps
Spurious Transmission	Complies with FCC 15.227 (USA), MPT 1346 pt 4.5 (UK) and ETS 300 220 (Europe)
Necessary Band Width	±5.0kHz
Digital Coding System	On board 10-way coding switch (1024 channels) Channel "A" is equal to code -11 "on", Channel "B" is equal to code-11 "off" Wire Link is equal to code-12 "on" and No Link is equal to code-12 "off" (In receiver)
Dimension	95 x 55 x 20mm
Weight	70g including battery
Useable Operating Range	500 metres. Depends on receiver antenna and location
Compatible Receivers	All Elsema type FMR series