

FMT-101



The FMT-101 transmitter with the battery and a push button, are self-contained in an attractive high impact black plastic case and comes without the ELSEMA imprint on the front cover of the casing. This enables customers to use their own label. Dimension of the label slot is 42.5 x 26.5mm.

The transmitter is activated by pressing a button, which is optically verified by a LED (Light Emitting Diode).

When the push-button is not pressed the unit requires no power, which means the useful life of the battery should reach its shelf life.

TECHNICAL READING

The superior Frequency Modulation (FM) has been used for improved reliability especially in electrically noisy areas.

The radio signal sent out by the transmitter is crystal controlled and operated within the 27MHz band.

The transmitter has a digital coding system with a built-in 12-way code switch that allows a selection of 4096 different codes.

An operating distance (in conjunction with our FMR series receivers) of 550 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
>550	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-101	
Power Source	9 Volt Battery Carbon: approximately 1 year shelf life Alkaline: approximately 2 year shelf life
Supply Voltage	7.5 to 9 VDC
Current Consumption	60mA (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)
Antenna	Built in 50mm long ferrite rod
Type of Emission	Narrow-band-width Frequency Modulation (5K00F1D)
Frequency Deviation Limiting	1000 – 1400Hz non-return to zero
Type of Modulation	Manchester format 1.08 ms per bit (15% tolerance)
Bits per second	926 bps
Spurious Transmission	At least -40dB/carrier
Necessary Band Width	±2.5kHz
Digital Coding System	On board 12-way coding switch (4096 channels)
Dimension	95 x 55 x 24mm
Weight	120g including battery
Useable Operating Range	550 metres. Depends on receiver antenna and location
Compatible Receivers	All Elsema type FMR series