

# FMR-240

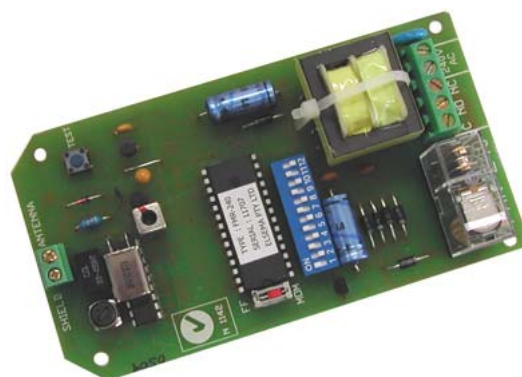
240V AC Receiver with 240V AC/DC 10A Relay Output

## Features

- Crystal Controlled
- Comprising of Receiving, Decoding & Relay-output Sections
- LARGE SCALE INTEGRATED CIRCUIT (LSI) is employed in the decoder section

## Applications

- Remote control of garage doors, gates, lights, alarms



## Description

The FMR-240 is a crystal controlled single channel receiver, comprising of receiving, decoding and relay-output sections. A specially designed LARGE SCALE INTEGRATED CIRCUIT (LSI) is employed in the decoder section, which ensures operation at low supply voltage, highest reliability, associated with very low power drain. The receiver works on a digitally encoded 27 MHz frequency modulated (FM) signal. It may be used in applications such as the remote control of garage doors, gates, lights, alarms or in any other new or existing installations where the use of conventional wiring is difficult or impossible to accomplish.

If the code of the input signal (from a transmitter) matches the setting of the coding switch on the receiver (up to 4096 combinations), an output is obtained i.e. the relay operates. This relay provides a clean set of contacts for switching current up to 10 Amps on 240 Volts.

Connection to the receiver is via a five-way screw-type terminal block, with a separate two-way screw-type terminal block for the antenna.

A proper 27 MHz CB-Antenna will give a reliable control range of up to 200 metres, when used with Elsema's FMT-301, FMT-302, FMT-304 transmitters. If a CB-Antenna is used, the shield of the cable must be connected to the "Sh terminal".

A push Button (designated as "TEST") is provided for relay output testing.

In the momentary mode (MOM) the relay is only activated while the correct signal is received. When changing the slide switch from "MOM" to "FF" (flip/flop mode) the output relay is toggled with every correct incoming signal. This enables the direct use for switching on/off lights etc. In flip/flop mode, the relay always energises at the initial "power-up".

If a "latching-on" output is required, for example receiver is used together with a "Panic Button", a wire link is to be fitted (See picture below). In such a case the relay can only be reset again by momentarily interrupting the supply. Another feature available is a "delayed-off" output. To facilitate it, a small time unit DU-3 is to be fitted into the four unused holes. When ordering receivers with this function, please specify length, which may be between 1 second to 60 minutes. In this mode the relay energises when a correct code is received or the "TEST" is pushed, and de-energises after the time unit.

Care must be taken, not to bring a receiver near strong magnetic fields, such as DC-Motors, speakers, magnets for reed switches, transformers etc. as it would magnetise the coils and may cause severe de-tuning.

**Technical Data**

Supply Voltage	240V AC Mains
Current Consumption	14mA 240V AC
Receiving Frequency	27.145MHz (Other freq. available: 27.045, 27.195 & 27.455MHz. NB. 27.455 freq. is not available for Australia )
Type of Crystal Used	26.690MHz, 3rd overtone, 20pF, 30ppm at 0-50°C
IF Freq	455kHz
Selectivity	At least -40dB at ±10kHz
Sensitivity	Better than 1uV (for relay to switch on)
Type of demodulation	Narrow-bandwidth Frequency Modulation (FM)
Band Width	±2.5kHz
Decoding System	Onboard 12-way coding switch (4096 digital channels)
Output	Change over relay output Rated at 10A 240V AC & 10A 30VDC Approved for 240V AC
Relay Contacts	Common (C) Normally Close (NC) and Normally Open (NO)
Connections	Supply & Relay Contacts: 5-way screw type terminal block (Rated 240VAC) Antenna: 2-way screw type terminal block
Antenna	50 ohms, 27MHz CB-Antenna or approximately 300mm long wire for short range applications.
Dimensions	130 x 70 x 37mm
Weight	128g
Compatible Transmitters	FMT-... series

**Manufactured by**

**Elsema Pty Ltd**  
 3/10 Hume Rd, Smithfield  
 NSW 2164  
 Ph: 02 9609 4668  
 Fax: 02 9725 2663  
 Website: <http://www.elsema.com>