

FMR-202

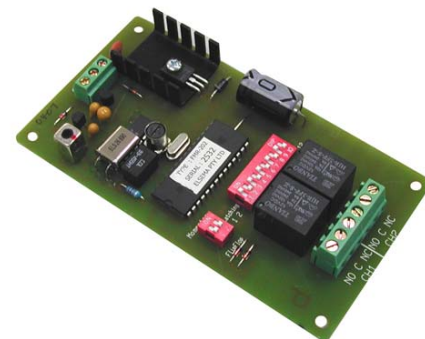
27MHz Receiver with Two Relay Outputs

Features

- Crystal Controlled
- 2-Channel
- Digitally Encoded

Applications

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



Description

The FMR-202 is a crystal controlled two-channel receiver, comprising of receiving, decoding and relay-output sections. A specially designed MICRO-PROCESSOR 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, from the transmitter matches the setting of the 10-way code switch on the receiver (up to 1024 combinations), an output is obtained i.e. the relay operates. This relay provides a clean set of contacts for switching DC current up to 5 Amps.

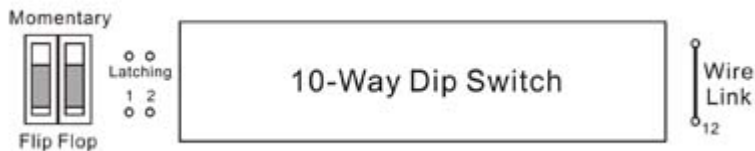
The two channels address code switch eleven. While code switch twelve is addressed with the wire link next to the receiver code switch. This feature enables the user to operate single channel transmitters on either of the two channels.

The supply and antenna connections to the receiver are via a three-way screw-type terminal block, with a separate six-way terminal block for the relay connections.

The receiver can be clipped to a Quick Mount enabling the receiver to be easily mounted against walls, roof, etc.

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 "minus terminal".

The two-way code switch (See below picture) allows individual control of each relays output mode. In the momentary mode the output relays are only activated while the correct signal is received. In the flip-flop mode the output relays are toggled with every correct incoming signal. This enables the direct use for switching on/off lights etc. In flip/flop mode, the relays are off at the initial "power-up".



Latching Feature

Inserting a .4” link into the latching link holes will configure the channels to latching “ON”, when the correct signal is received. To turn relay “OFF” power to the receiver must be momentarily turned “OFF”.

Accessories



FMR-202E Enclosed in Plastic Case C160

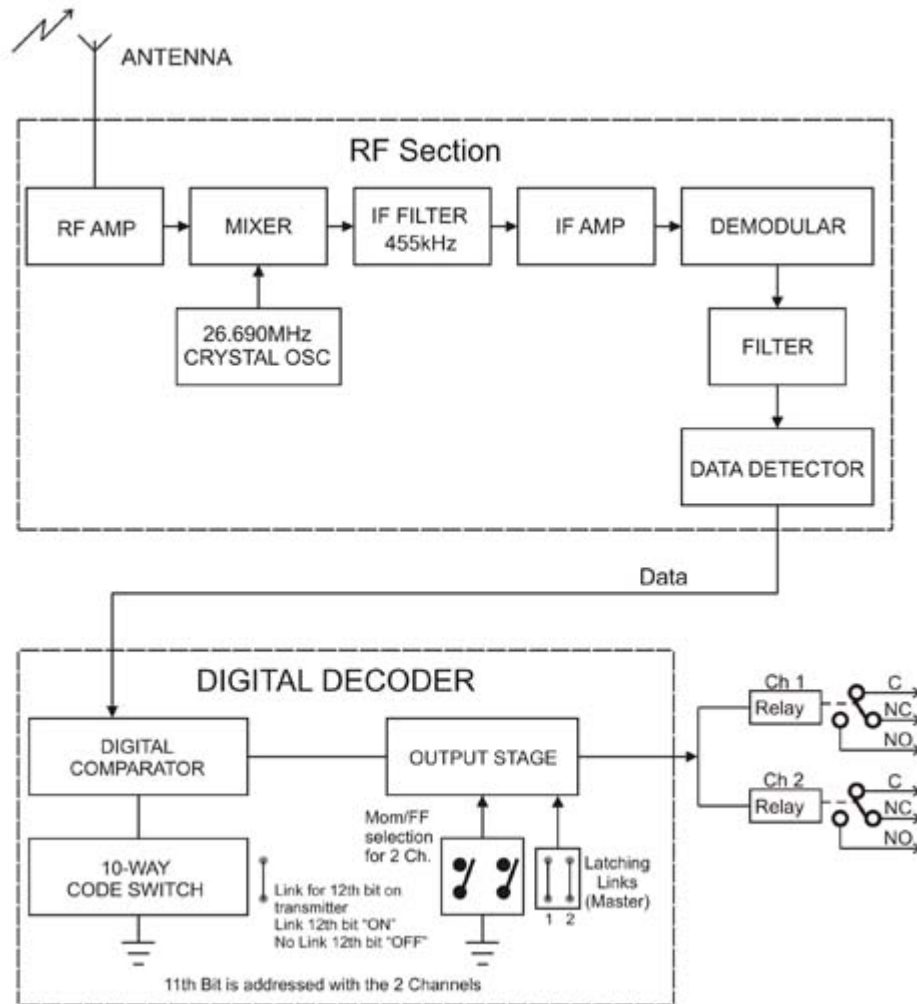


Quick Mount QM100

Technical Data

| | |
|-------------------------|--|
| Supply Voltage | 11.0 - 28 VDC, 10.0 - 28 VAC Can use Elsema AC power supply PP12 or PP24 Supply lines should be less than 3m long to comply with radio frequency authorities |
| Current Consumption | 15mA stand by at 12 VDC; 44.0mA if one relay is "ON" at 12VDC 73.0mA if both relays "ON" at 12VDC |
| 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 10-way coding switch (4096 digital channels) |
| Output | Two change over relay output, rated at 5A / 240V |
| Relay Contacts | Two sets of Common (C) Normally Close (NC) & Normally Open (NO) |
| Connections | Supply & Antenna: 3-way screw type terminal block Two Relays: 6-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 20mm |
| Mounting | Clip into a QM100 or QM150 Quick Mount or UBB plastic case |
| Weight | 89g |
| Compatible Transmitters | FMT-... series |

Block Diagram



Manufactured by

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