

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.

Elsema's ANT27MHz series antennas will give a reliable control range of up to 200 metres, when used with Elsema's FMT-301, FMT-302 and FMT-304 transmitters.



Output Modes

Relay output on the receiver can function in either momentary or latching mode. By default the mode is set to momentary. Modes selectable from the 2-way dipswitch. Dipswitch 1 corresponds to relay channel 1 and dipswitch 2 corresponds to relay channel 2.

Factory Default = Momentary

Momentary - Output is active for as long as the transmitter button is pressed.

This is a standard mode on most automatic gates or garage door openers.

Latching - Output remains active until next press of the transmitter button.

Similar to switching "on" and "off" a light.

In latching mode, the relays are off at the initial "power-up".

Security Latching - Output remains active until power to the receiver is removed. Similar to security alarms and fire alarms.

Accessories



FMR-202E Enclosed in Plastic Case C160

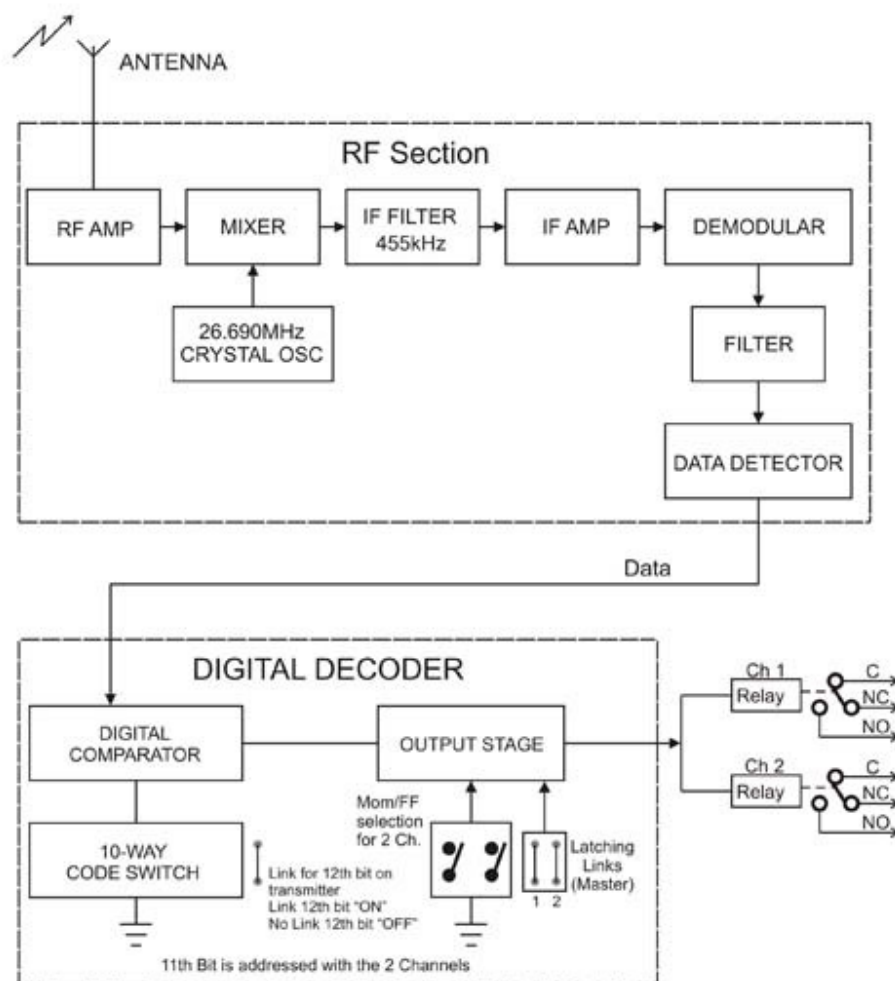


Quick Mount QM100

Technical Data

Supply Voltage	11.0 - 28 Volts DC, 10.0 - 28 Volts AC 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 Volts DC; 73.0mA if both relays "ON" at 12Volts DC
Receiving Frequency	27.145MHz (Other frequencies available: 27.045, 27.195 & 27.455MHz. NB. 27.455MHz is available for Europe Only)
Sensitivity	Better than 1uV (for relay to switch on)
Type of demodulation	Narrow-bandwidth Frequency Modulation (FM)
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	Elsema's ANT27MHz series antennas or piece of approximately 300 mm 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	All Elsema type FMT-... 27MHz series and KEY-3.. series

Block Diagram



REGULATORY COMPLIANCE STATEMENTS

Australian and New Zealand Users

This device has been tested and found to comply with the limits for a Class [B] digital device, pursuant to the Australian/New Zealand Electromagnetic compatibility (EMC) standard AS/NZS 61000.6.3 set out by the Spectrum Management Agency.