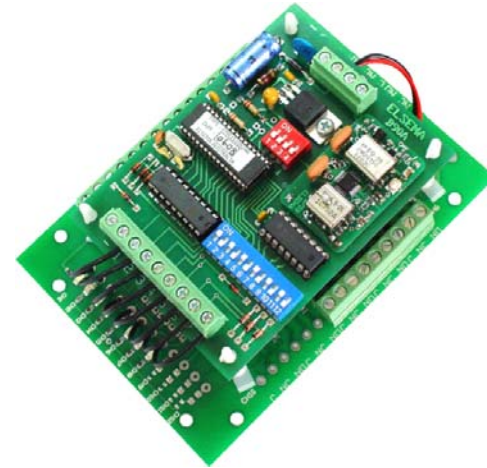


FMR1510812R, FMR1510824R

8-Channel 151MHz Receiver with Relay Outputs

Features

- Wide supply connection – 11.0 to 14.0 Volts AC/DC for FMR1510812R or Volts AC/DC for FMR1510824R
- Eight relay outputs. All outputs can be operated simultaneously.
- Crystal controlled for high stability and performance.
- Uses micro-controller technology that can be re-programmed to suit unique
- Momentary, flip-flop and latching output modes is user-selectable.



Applications

- Pump Control
- Long distance panic button
- On/Off applications in agricultural devices
- Basic Telemetry eg. Water level indication

Description

FMR15108 can be used in noisy environment and is least affected by electrical interference. This makes FMR15108 an ideal choice for use in heavy industrial environment.


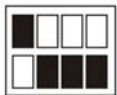
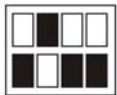

Case


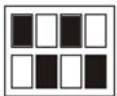
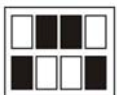
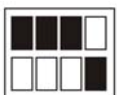
The FMR1510812R, FMR1510824R can be supplied without a case, this allows the receiver to be integrated according to your needs.

The C160 case (weather proof) can be used to enclose the FMR1510812R, FMR1510824R receiver. The receiver with a case is known as FMR1510812RE, FMR1510824RE.

Different Modes for each Output

Modes are user selectable from the 4-way dip switch, shown below.
(Dipswitch 4 is reserved for specific customer mode. Normally not used.)

DIP Switch Mode Settings	
The output relay will respond in the following manner when receiving the correct signal from a transmitter	
<div style="display: flex; justify-content: space-around; font-weight: bold; margin-bottom: 5px;">1 2 3 4</div> 	"All Momentary": Relay on, only while correct signal is received
	"All Flip-Flop": Outputs alternate at every correct incoming signal
	"Momentary & Flip-Flop": Outputs 1-4 are momentary & 5-8 are flip-flop
	"Latching on": Outputs will be on until supply to receiver is momentarily interrupted









	"Momentary & Flip-Flop": Outputs 1-6 are momentary & 7-8 are flip-flop
	"Momentary & Flip-Flop": Outputs 1-2 are momentary & 3-8 are flip-flop
	"Momentary & Flip-Flop": Outputs 1-3 are momentary & 4-8 are flip-flop
	"Latching on": Output 1 is latching & 2-8 are momentary

*** Dipswitch 4 is reserved**

Coding

The 12 way dip switch on the receiver sets the 12 bit unique code for the system. This has to be matched to that on the transmitter.

Products in the Range

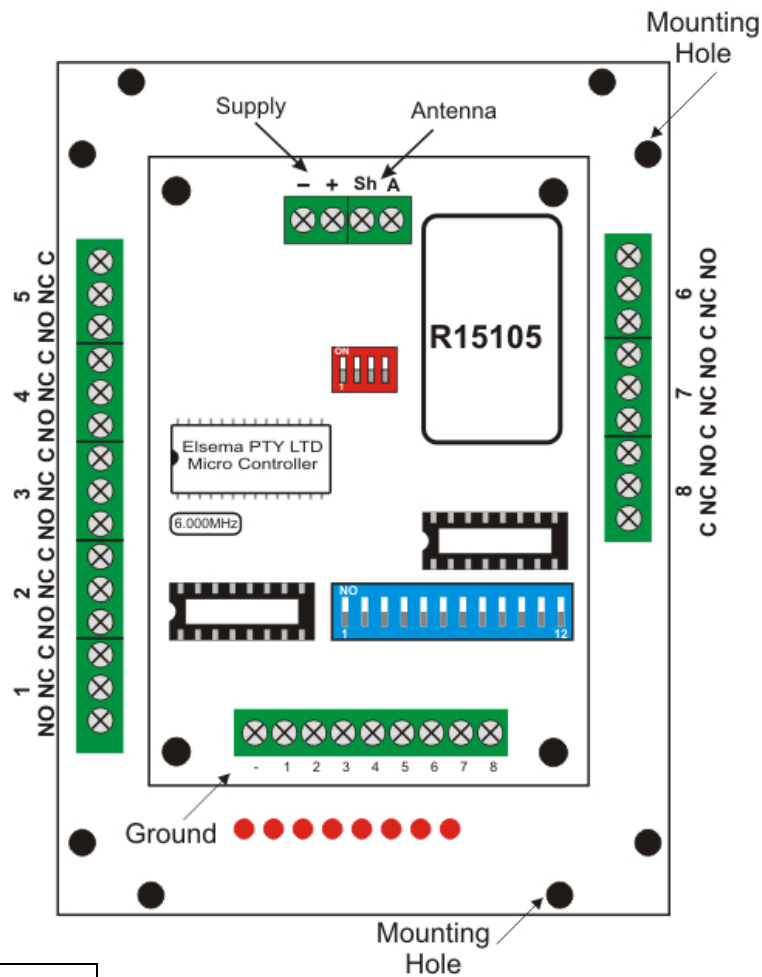
			
FMR15101 1-Channel	FMR15102 2-Channel	FMR15101240 1- Channel 240VAC Supply	FMR15102240 2- Channel 240VAC Supply
			
FMR15104 4-Channel	FMR15108 8-Channel	FMR1510812R 8-Channel, 12V Supply	FMR1510824R 8-Channel, 24V Supply

Technical Data

Supply Voltage	FMR1510812R : 11.0 to 14 V AC/DC Absolute maximum DC 18 Volts FMR1510824R : 21.0 to 28 V AC/DC Absolute maximum DC 35 Volts Can use Elsema AC power pack (12PP or 24PP) Supply lines should be less than 3 metres long to comply with radio frequency authorities				
Current Consumption	20 mA standby, 210mA if all outputs “On”				
Receiver Type	Single Conversion Superheterodyne				
Receiving Freq	151.6MHz (8 selectable frequencies within 150.900 - 151.600MHz with 100KHz spacing available).				
Oscillation System	VCO with 10ppm crystal controlled reference oscillator				
Operating Temperature Range	-5 to 50°C				
IF Freq	10.7MHz				
Selectivity	Better than -6dB at ±25kHz				
Type of Demodulation	Narrow-Bandwidth Frequency Modulation (FM)				
Occupied Bandwidth	25kHz at -20dB				
Relay Contacts	Common (C) Normally Close (NC) and Normally Open (NO)				
Output Modes	1	2	3	Mode	Description
	Off	Off	Off	All Momentary	Outputs on, only while correct signal is received.
	On	Off	Off	All Flip- Flop	Outputs alternate at every correct incoming signal.
	Off	On	Off	Momentary and Flip-Flop	Outputs 1 to 4 are momentary and 5 to 8 are flip-flop.
	On	On	Off	Latching on	Outputs will be on until supply to receiver is momentarily interrupted.
	Off	Off	On	Momentary and Flip-Flop	Outputs 1 to 6 are momentary and 7 to 8 are flip-flop
	On	Off	On	Momentary and Flip-Flop	Outputs 1 to 2 are momentary and 3 to 8 are flip-flop
	Off	On	On	Momentary and Flip-Flop	Outputs 1 to 3 are momentary and 4 to 8 are flip-flop
On	On	On	Latching and Momentary	Output 1 is latching and 2 to 8 momentary	
Connections	Supply, Antenna & Outputs - Screw type terminal block				

Antenna	50Ω, 151MHz Antenna, Elsema ANT151M for maximum performance A piece of approximately 1metre wire can be used for short range applications
Dimensions	130 x 94 x 42mm
Mounting hole size	3.97 mm or 5/32"
Weight	240g
Microcontroller	Can be re-programmed to suit your customised needs
Useable Transmitters	FMT15101E, FMT15102E, FMT15104E, FMT15108E (with correct setting on the dip switch). See Transmitter datasheet for details.
Useable operating range	Up to 5000 metres, depending on installation and type of antenna used. Recommended Antenna is Elsema ANT151M

Block Diagram



Manufactured by

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