# GLR43308R, GLR43308POS & GLR43308

8-Channel 433MHz Gigalink™ Receiver


**Features**
- Supply voltage can be 12 – 24 Volts AC or DC
- Highly sensitive receiver input stage. When used with GLT433… transmitters an operating range of 350 metres (980 ft) is possible.
- All outputs can be operated simultaneously.
- Two versions available
  - GLR43308POS positive switching output
  - GLR43308 open collector output
- Crystal controlled for high stability and performance.
- Uses micro-controller technology that can be re-programmed to suit unique applications.
- Momentary, latching and security latching output modes is user selectable.

**Applications**
- Automatic gates.
- Security systems.
- Timer controlled outputs.
- Simple on/off function.

**Description**

The GIGALINK™, GLR43308 is the **most advanced Remote Control technology** available in the world today. GIGALINK™ is an invention that has revolutionised the entire Remote Control technology including Elsema's earlier version of FMT- … and FMR- … series.

The GLR43308 state-of-the-art invention brings a new dimension in the world of Remote Control technology in domestic, **commercial and industrial** applications.

The innovative microcontroller technology replaces the traditional dip switch coding which **eliminates** any possible **code grabbing.** Special features such as over four billion code combinations and ability to program any number of transmitters to a receiver adds up to the most advanced and secure Remote Control available.

**Code Programming**

For code programming, please refer to the separate programming instructions.

**Applications**

The GLR43308 receiver outputs can be set to different modes which allows it to be used in many diverse applications such as security, industrial machine monitoring, crane control, level monitoring, multiple on/off functions etc.

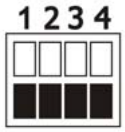
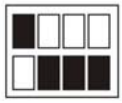
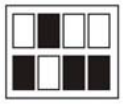
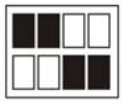
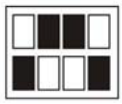
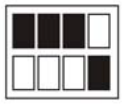
**Unique Code System**

The microcontroller EEPROM allows large volume users to have a unique code. This enables Elsema to offer everyone "your own" radio control.

When programming is completed and the GIGALINK cable is removed from the receiver-coding socket, the 4-way dip switch is used to select different output modes. This is described below.

## 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**<br>The output relay will respond in the following manner when receiving the correct signal from a transmitter |
|---|---|---|
|  | All OFF | "All Momentary": Relay on, only while correct signal is received |
|  | 1 ON | "All Latching": Outputs alternate at every correct incoming signal |
|  | 2 ON | "Momentary & Latching": Outputs 1-4 are momentary & 5-8 are latching |
|  | 1 & 2 ON | "Security Latching on": Outputs will be on until supply to receiver is momentarily interrupted |
|  | 3 ON | "Momentary & Latching ": Outputs 1-6 are momentary & 7-8 are latching |
|  | 1 & 3 ON | "Momentary & Latching ": Outputs 1-2 are momentary & 3-8 are latching |
|  | 2 & 3 ON | "Momentary & Latching ": Outputs 1-3 are momentary & 4-8 are latching |
|  | 1, 2 & 3 ON | "Security Latching on": Output 1 is security latching & 2-8 are momentary |

*** Dipswitch 4 is reserved**

**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.*

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

## Customised Software

Custom output modes can be programmed to do special functions. Call Elsema for more details.

## Case

The GLR43308 can be supplied without a case, this allows the receiver to be integrated according to your needs. The C1015 or C1020 case and QM100 mounting bracket can be used to enclose the GLR43308 receiver. The receiver with a case is known as a GLR43308E.

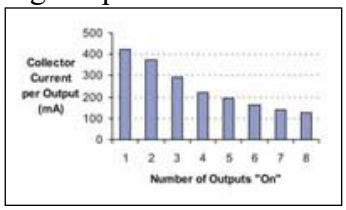
## AC/DC Supply and Antenna

AC/DC power supply and antenna is connected to the 3-way terminal block. The shield of the antenna coaxial cable should be connected to the minus ( - ) terminal block.
Do not connect the AC/DC supply to the 2.5-mm coding socket since connection may damage the microcontroller.

## Products in the Range

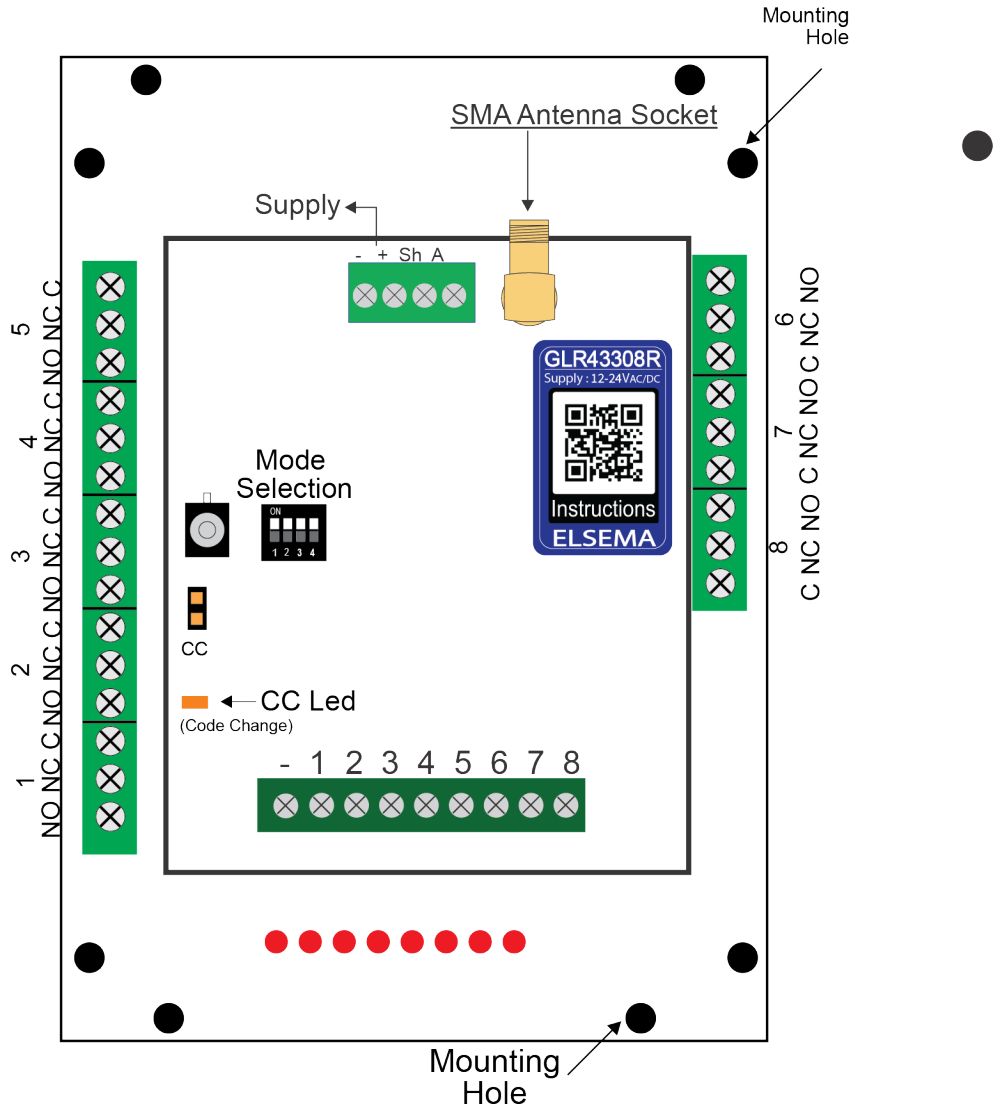
| | | | | |
|---|---|---|---|---|
|  |  |  |  |  |
| **GLR43301**<br>1-Channel | **GLR43301240**<br>1-Channel, 240V | **GLR43302**<br>2-Channel | **GLR43302240**<br>2-Channel, 240V | **GLR4330412**<br>4-Channel, 12 - 24V |
|  |  |  |  |  |
| **GLR43304240**<br>4-Channel, 240V | **GLR43308**<br>8-Channel | **GLR43308R**<br>8-Channel Relay Output | **GLR43302SS**<br>**Receiver with 6-way female connector** | **GLR43302SST**<br>**Receiver with terminal block** |

## Technical Data

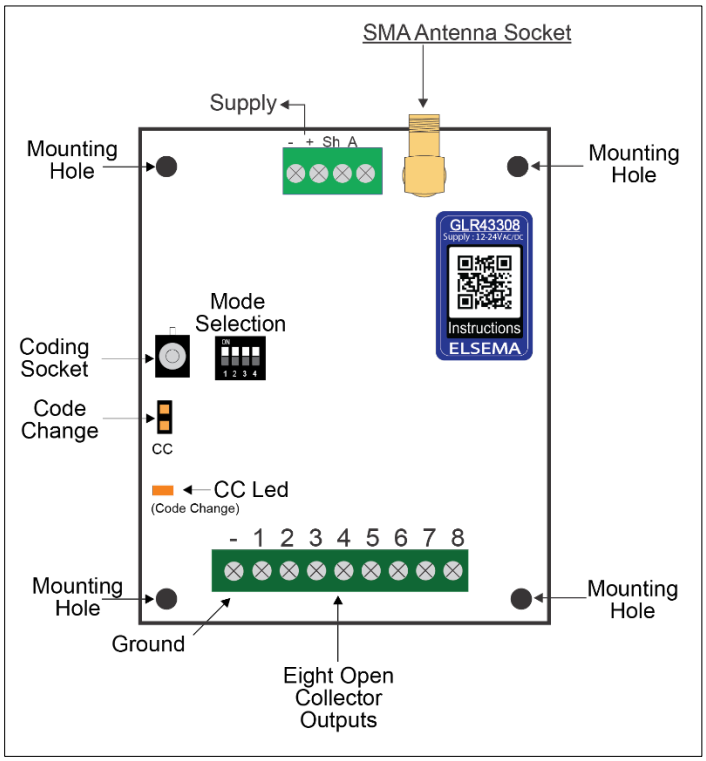
| | GLR43308R | GLR43308POS | GLR43308 |
|---|---|---|---|
| Supply Voltage | 12 – 24 Volts AC or DC. (Recommended powerpack: 12PP-1000) | | |
| Current Consumption | 10 mA standby, 340 mA if all outputs “On” | 10 mA standby, 25 mA if all outputs “On” | |
| Receiving Frequency | 433.920MHz | | |
| Operating Temperature Range | -5 to 50°C | | |
| Outputs | | | |
| | Eight change over relay outputs, rated at 8 Amps 240 VAC | 50 Volts, 120 mA with all outputs ON. For maximum switching currents, download driver chip **(A2982SLW)** datasheet. | Eight Open Collectors   All eight outputs can be ON simultaneously with each output collector current being 125 mA. Outputs can hold 40 Volts in “Off” state. |
| Antenna | Elsema’s ANT433MHz series antennas or piece of approximately 690 mm long wire for short range applications. | | |
| Dimensions | 130 x 95 x 45mm | 96 X 70 X 15 mm | |
| Mounting hole size | 3.97 mm or 5/32" | | |
| Mounting Hole Spacing | Length 85 mm (3.34")<br>Width 60 mm (2.36") | | |
| Useable Transmitters | All Elsema Type 433MHz GLT-... series | | |

## Block Diagram

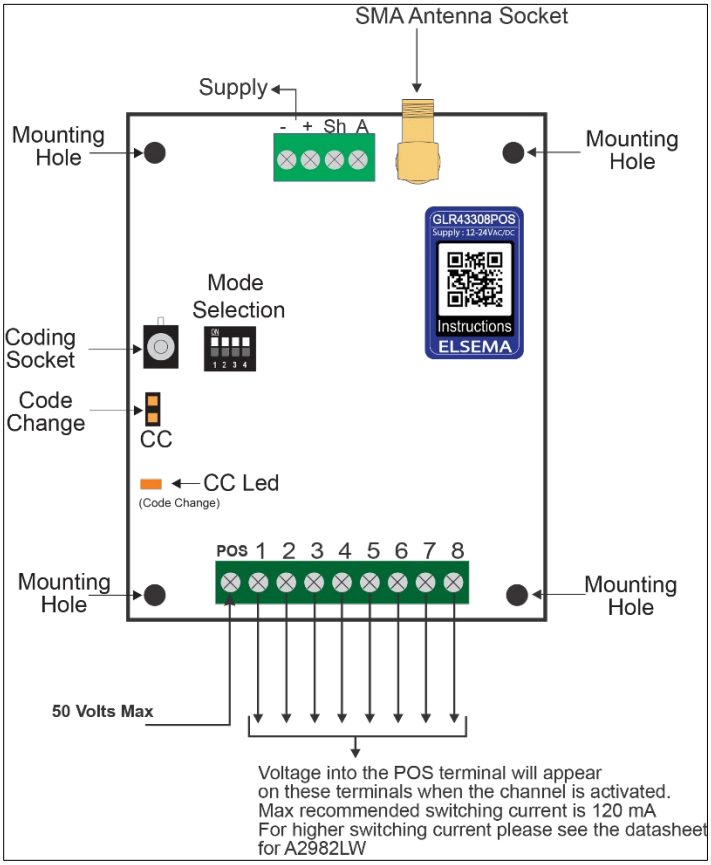
### GLR43308R



## GLR43308

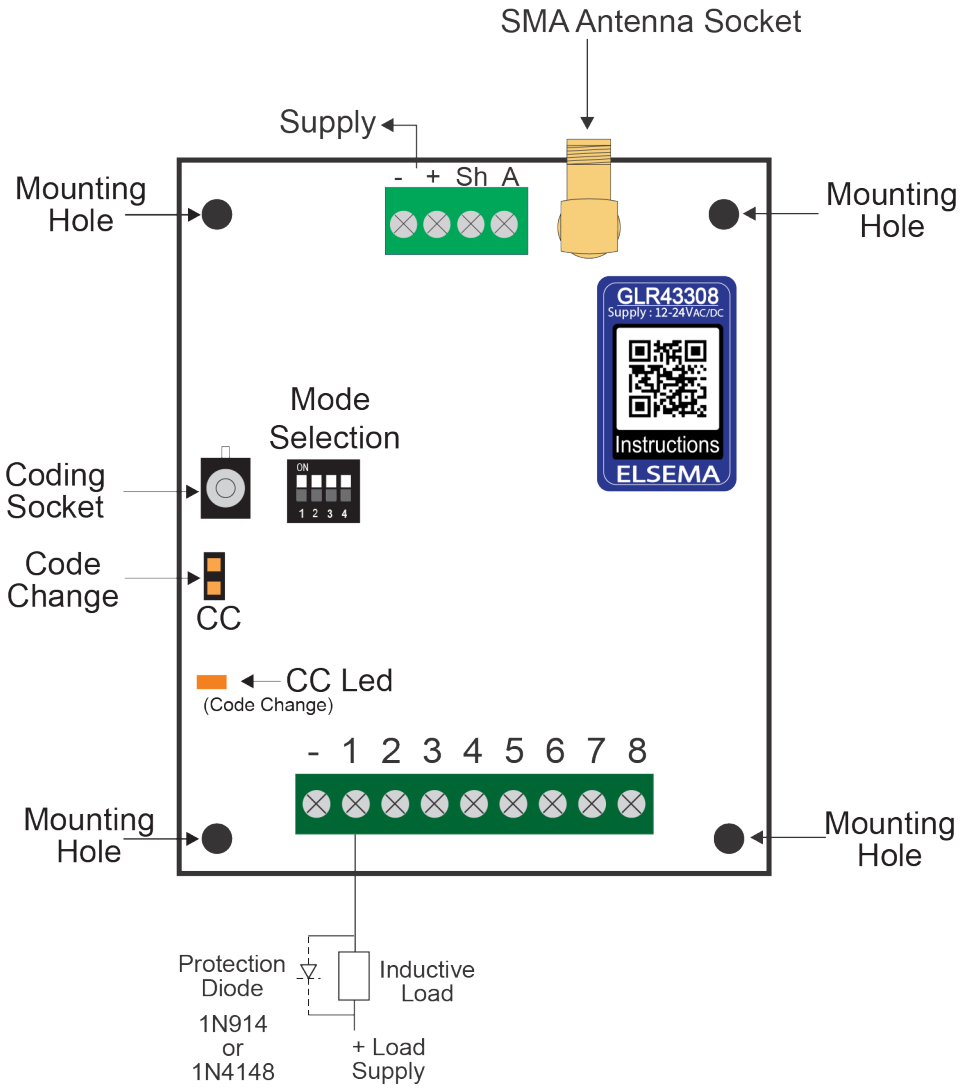



## GLR43308POS




## Application Notes

Care should be taken with the solid-state outputs that they are protected from inductive loads. This is done by connecting diodes across your DC inductive load.
Inductive loads such as DC relays must be clamped with a diode across the relay coil. If this is not done the spikes generated by the DC relay can lock-up the receiver. When a lock-up occurs you will need to remove the power and re-connect it.

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