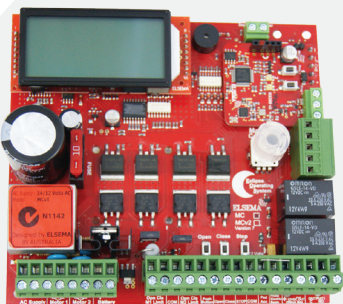


# 2024-2025

## CATALOGUE

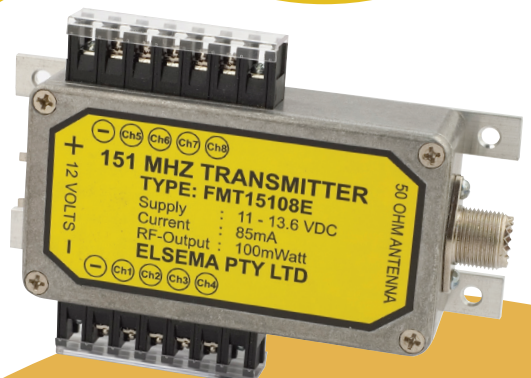


Automatic Gate  
Control Cards

4G GSM Gate Opener



Gate Automation Kits



# Automatic Gate and Wireless Technology

Established in 1973, Elsema (Electronic Service and Manufacture) has emerged as a pioneering force in the industry, leading the way in cutting-edge innovations in gate automation and remote-control technologies.

As a proudly privately-owned Australian company, Elsema attributes its growth and success to the visionary leadership of co-founder Otto Eigner. Since its modest beginnings with merely four employees in 1976, Elsema has expanded to encompass a dedicated team of over 40 employees at present.

At Elsema, our specialization lies in the development, manufacturing, and provision of customer-oriented automatic gate and wireless solutions. Our global standards in gate automation technology and license-free wireless remote controls are emblematic of our expertise and the pivotal role our customers play in

directing our manufacturing and research endeavours.

With our extensive product range, Elsema stands as the singular destination for all gate automation and remote-control technology requisites.

From automatic gate kits catering to domestic, commercial, and industrial applications to an extensive array of accessories. These include remote controls, receivers, antennas, power supplies, and electrical enclosures.

Explore Elsema's innovative solutions today and discern first-hand why we are the preeminent leaders in electric gate openers and wireless remote-control technology.





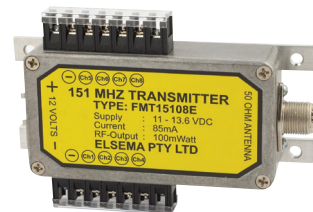
# PRODUCT SPOTLIGHT

Waterproof  
Keyring Remote



PentaFOB® Series

Long Distance  
Transmitter



FMT151 Series

ELSEMA  
INTELLIGENT  
SLIDER

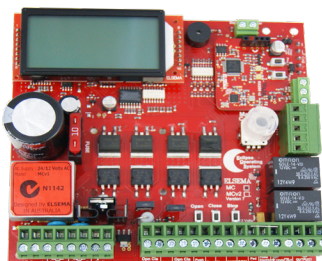


Industrial Sliding  
Gate Kits

Variable Speed Drive  
Control Box



Automatic  
Gate Controls



Eclipse® Control Card

ELSEMA  
INTELLIGENT  
SWING



Domestic &  
Industrial Swing  
Gate Kits



Domestic Sliding  
Gate Kits

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# Domestic Sliding Gate Kits



## Quick Selection Guide

Part Number	iS600	iS900	iS900B	iS900Solar
Input Supply	240 Volts AC	240 Volts AC	240 Volts AC	24V Solar Panel
Motor Voltage	24 Volts DC	24 Volts DC	24 Volts DC	24 Volts DC
Soft Start Soft Stop	User Adjustable ■ ■ ■ ■ ■	User Adjustable ■ ■ ■ ■ ■	User Adjustable ■ ■ ■ ■ ■	User Adjustable ■ ■ ■ ■ ■
Maximum Gate Weight	600kg	900kg	900kg	900kg
Motor Size	80 Watts	120 Watts	120 Watts	120 Watts
Solar / Battery Backup Option				 +  Included in the kit
Gate Speed	250mm/sec	250mm/sec	250mm/sec	250mm/sec

# Industrial Sliding Gate Kits


Part Number	iS1500	iS1500LV	iS2000	iS3000
Input Supply	240 Volts AC	240 Volts AC	240 Volts AC	24V Solar Panel
Motor Voltage	240 Volts AC	24 Volts DC	240 Volts AC	240 Volts AC
Soft Start Soft Stop	User Adjustable ■ ■ ■ ■ ■	User Adjustable ■ ■ ■ ■ ■	User Adjustable ■ ■ ■ ■ ■	User Adjustable ■ ■ ■ ■ ■
Maximum Gate Weight	1,200kg	1,200kg	2,000kg	3,000kg
Motor Size	250 Watts	250 Watts	750 Watts	1100 Watts
Battery Backup Option		Backup Battery Included in the Kit		
Gate Speed	450mm/sec	367mm/sec	633mm/sec	315mm/sec



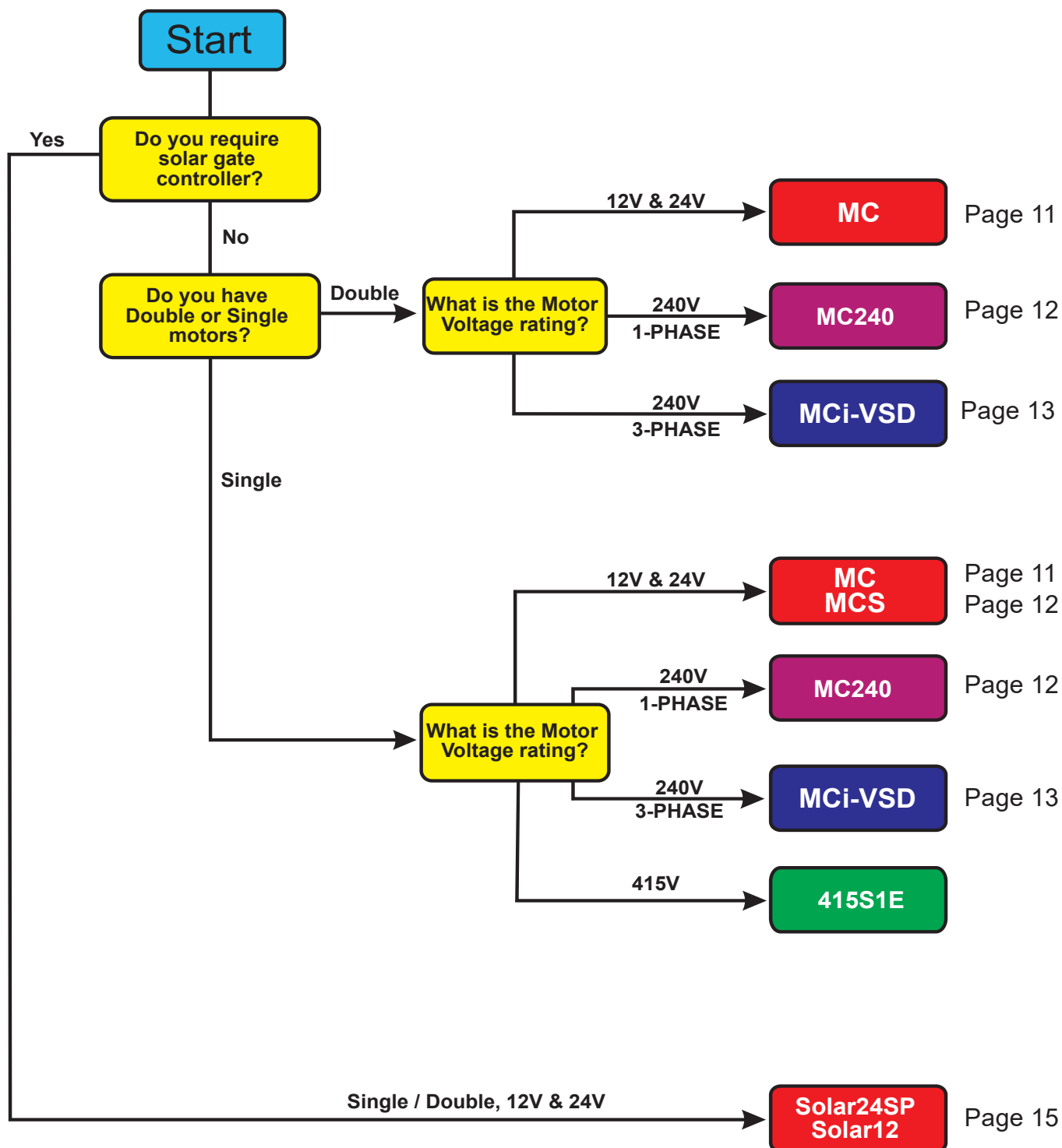
# Swing Gate Kits

## Quick Selection Guide

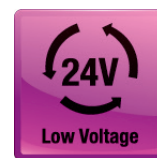


	Domestic 	Domestic / Commercial	Domestic 
Part Number	iS260D	iS400D	iS270D
Input Supply	240 Volts AC	240 Volts AC	240 Volts AC
Motor Voltage	24 Volts DC	24 Volts DC	24 Volts DC
Soft Start Soft Stop	User Adjustable ■ ■ ■ ■ ■	User Adjustable ■ ■ ■ ■ ■	User Adjustable ■ ■ ■ ■ ■
Maximum Gate Size	2.5 metres	4.5 metres	2.5 metres
Motor Type	 Worm Drive	 Worm Drive	 Articulated Arm
Solar / Battery Backup Option	 + 	 + 	 + 
Day & Night Sensor	User Adjustable ■ ■ ■ ■ ■	User Adjustable ■ ■ ■ ■ ■	User Adjustable ■ ■ ■ ■ ■

## Gate Controller Selection Guide



# Domestic Sliding Gate Kits



**ELSEMA**   
**INTELLIGENT**   
**SLIDER®**

- ) Self learning using intelligent positioning technology
- ) High capacity Lithium-Ion battery backup optional
- ) Easy installation with Eclipse® control card
- ) Powerful 120 Watt motor for faster speed
- ) All metal gearbox for longer life
- ) Suitable for gates up to 900kg on level ground
- ) Contact less limit switch
- ) Soft start and soft stop
- ) Designed by Elsema in Australia

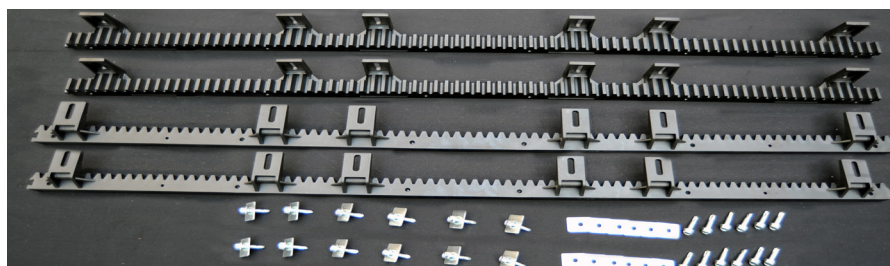


## TECHNICAL DATA

Model	iS600	iS900	iS900B	iS900Solar
Motor Size	80W	120W	120W	120W
Motor voltage	24 Volts DC	24 Volts DC	24 Volts DC	24 Volts DC
Gate weight (Level ground)	600kg	900kg	900kg	900kg
Gate Speed	250mm/sec	250mm/sec	250mm/sec	250mm/sec
Input Power	240V 10Amps	240V 10Amps	240V 10Amps	<b>Solar Panel</b>
Duty cycle	60% over 12 min	60% over 12 min	60% over 12 min	-
Backup battery	-	-	<b>Lithium-Ion</b>	<b>Lithium-Ion</b>

## GEAR RACKS

Elsema stocks steel re-enforced, nylon gear racks for automatic sliding gates. These racks are 1 metre long and comes complete with mounting brackets and screws. Competitively priced and quality you can trust, they are the best value for money.



**Part Number: GR4**





**iS600**



**iS900**



**iS900B**



Monitoring APP.  
Search for VictronConnect in  
App store

**iS900Solar**

**iS600 & iS900** kits include 3 PentaFOB® remotes, 4 metres of gear rack and a photo electric beam.

**iS900B** kit includes Li-Ion battery backup, 3 PentaFOB® remotes, 4 metres of gear rack and a photo electric beam.

**iS900Solar** kit includes a smart ultra-fast MPPT solar charger, Li-Ion battery, a single 24V solar panel, 3 PentaFOB® remotes, 4 metres of gear rack and a photo electric beam.

The iS900Solar24 kit uses the latest Bluetooth Smart technology with ultra-fast MPPT charging. The mobile phone app shows the battery status in real time, charging current, voltage and the output of the solar panel.

# Industrial Sliding Gate Kits

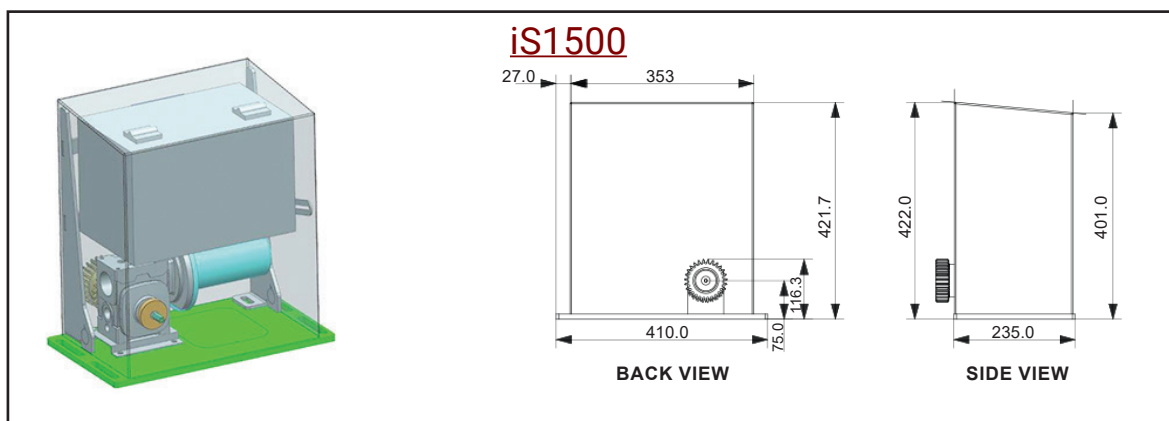
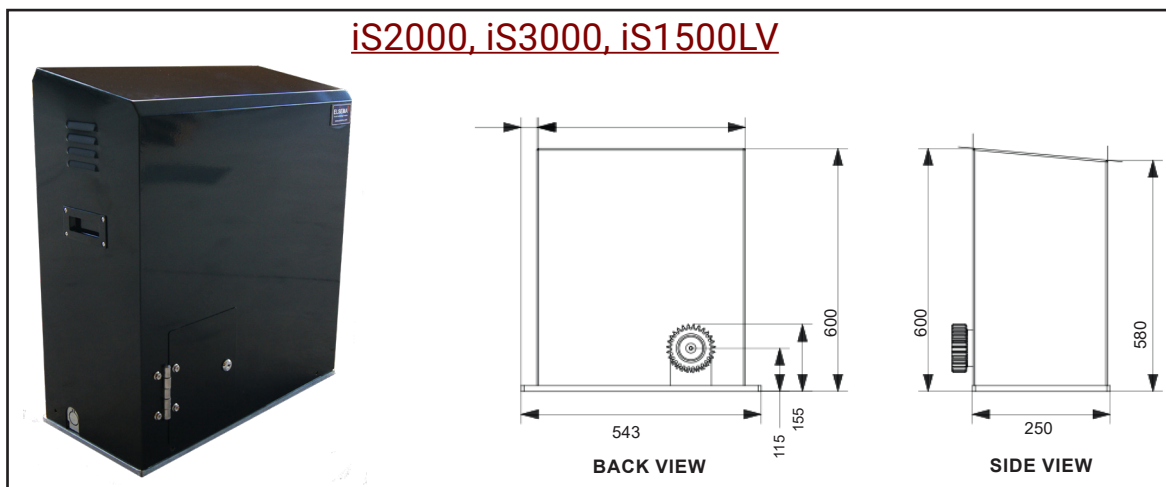


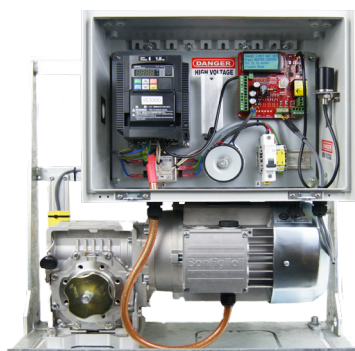
- ) High quality Japanese VSD
- ) No restriction on gate length
- ) Smart contact-less dual limit switch
- ) Easy installation with Eclipse® control card
- ) Designed in Australia
- ) Slow limit and stop limit
- ) Soft start and soft stop
- ) Powder coated industrial cover

**ELSEMA**  
**INTELLIGENT SLIDER®**



## Dimensions





**iS3000**

## TECHNICAL DATA

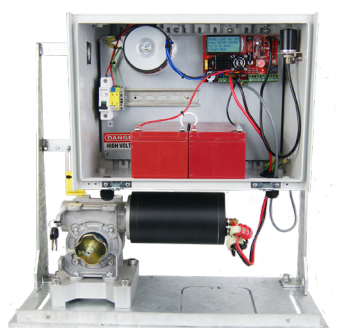
Motor size	1100W
Motor voltage	240 Volts AC
Max gate weight	3,000kg
Gate speed	315mm/sec



**iS2000**

## TECHNICAL DATA

Motor size	750W
Motor voltage	240 Volts AC
Max gate weight	2,000kg
Gate speed	633mm/sec



**iS1500LV  
with backup battery**

## TECHNICAL DATA

Motor size	250W
Motor voltage	24 Volts DC
Max gate weight	1,200kg
Gate speed	367mm/sec



**iS1500**

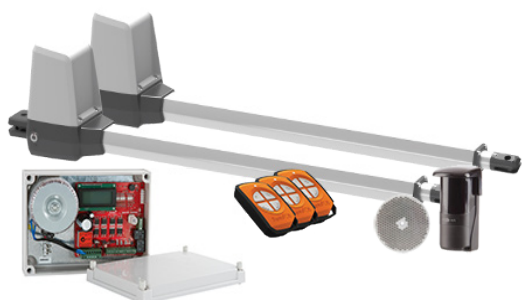
## TECHNICAL DATA

Motor size	250W
Motor voltage	240 Volts AC
Max gate weight	1,200kg
Gate speed	450mm/sec



# Swing Gate Motor Kits

## DOMESTIC SWING GATE MOTOR KITS



**iS260 (Single Kit)**  
**iS260D (Double Kit)**

### TECHNICAL DATA

Power supply	240 Volts AC
Motor voltage	24 Volts DC
Max gate weight	200kg
Max gate length	2.5 metres

## Articulated Arm Motor



**iS270 (Single Kit)**  
**iS270D (Double Kit)**

### TECHNICAL DATA

Power supply	240 Volts AC
Motor voltage	24 Volts DC
Max gate weight	250kg
Max gate length	2.5 metres

## RESIDENTIAL SWING GATE MOTOR KITS

*New Version! Limit switch on top side for easy adjustment.*



**iS400 (Single Kit)**  
**iS400D (Double Kit)**

### TECHNICAL DATA

Power supply	240 Volts AC
Motor voltage	24 Volts DC
Max gate weight	400kg
Max gate length	4.5 metres

## SOLAR SWING GATE MOTOR KITS



**iS270Solar (Single Kit)**  
**iS270DSolar (Double Kit)**

### TECHNICAL DATA

Power supply	Solar
Motor voltage	24 Volts DC
Max gate weight	250kg
Max gate length	2.5 metres

*New Version! Limit switch on top side for easy adjustment.*



**iS400Solar (Single Kit)**  
**iS400DSolar (Double Kit)**

### TECHNICAL DATA

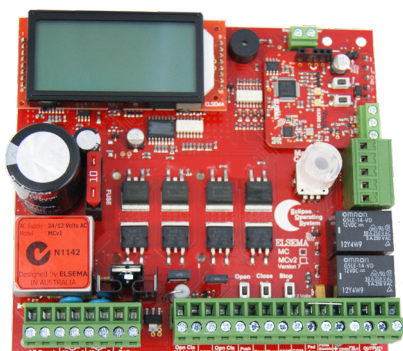
Power supply	Solar
Motor voltage	24 Volts DC
Max gate weight	400kg
Max gate length	4.5 metres



# MC Series with Eclipse®

## 12 or 24V Control Card for Double or Single Gate

MC  
140 x 130 mm



MC24E  
or  
MC12E

### FEATURES

- ) Suitable for swing and sliding gates
- ) Double or single motor operation
- ) Motor soft start and soft stop
- ) Speed and force adjustment
- ) 1-Touch control for easy setup
- ) Supports limit switch inputs or mechanical stops
- ) Energy saving mode to reduce running costs
- ) Service counters, password protection, holiday mode and many more features
- ) Built-in 12 and 24 Volt battery charger for backup batteries (MC & MCS)
- ) Low standby current making it ideal for solar gates

### DESCRIPTION

Are you ready for the next Eclipse? The MC is not just the next generation but the "Next Transformation" in the gate and door industry creating an Eclipse over previously developed motor controllers.

This new intelligent motor controller is the best match for your automatic gate or door motors.

The intelligent controller was built from the ground up, based on customer feedback and using today's technology.

Elsema's easy options to add remote controls or any type of photoelectric beams makes for a very user friendly approach, while avoiding the lock down approach to accessories.

The control cards are available with an IP66 rated plastic enclosure for outdoor installations, backup batteries with charger or the card only. The MC is also suitable for solar gates as it has very low standby current.

Part No.	Contents
<b>MC</b>	Double or single gate and door controller for 24 / 12 Volt motor up to 120 Watts
<b>MC24E</b>	Double or single controller for <u>24 Volt</u> motors includes IP66 rated plastic enclosure and transformer
<b>MC24E2</b>	Same as MC24E plus <u>24 Volt</u> 2.3Ah backup battery
<b>MC24E7</b>	Same as MC24E plus <u>24 Volt</u> 7.0Ah backup battery
<b>Solar Gates</b>	
<b>Solar24SP</b>	Solar kit for double or single gates, includes solar MPPT charger & <u>24 Volt</u> 15.0Ah backup battery and a 40W solar panel.

Part No.	Contents
<b>MCv2</b>	Double or single gate and door controller for 24 / 12 Volt motor bigger than 120 Watts
<b>MC12E</b>	Double or single controller for <u>12 Volt</u> motors includes IP66 rated plastic enclosure and transformer
<b>MC12E2</b>	Same as MC12E plus <u>12 Volt</u> 2.3Ah backup battery
<b>MC12E7</b>	Same as MC12E plus <u>12 Volt</u> 7.0Ah backup battery
<b>Solar Gates</b>	
<b>Solar12</b>	Solar kit for double or single gates, includes solar MPPT charger & <u>12 Volt</u> 15.0Ah backup battery

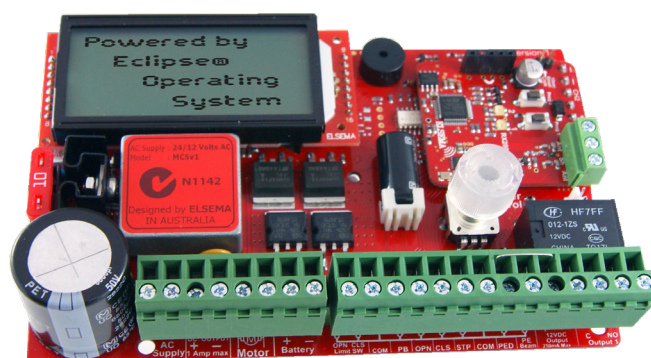
**MC is suitable for motors up to 120 Watts. Above 120 Watts use MCv2.**

**MC & MCv2 control card can be used to control automatic gates, doors, boom gates, automated windows & louvres.**



## 12 or 24V Control Card for Single Gate

with Eclipse® Operating System (EOS)

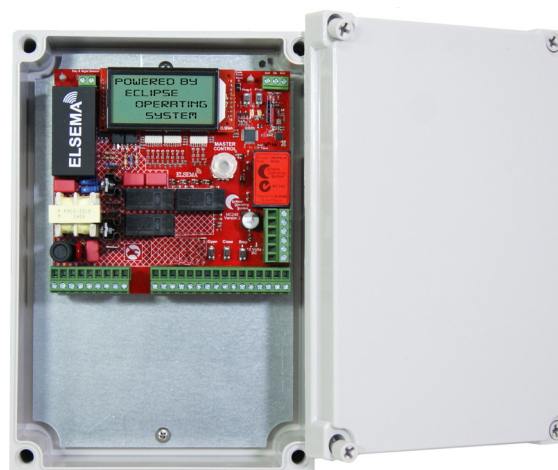
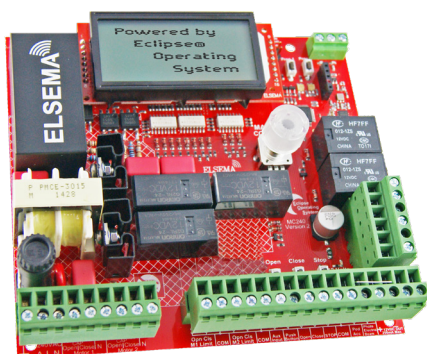


Part No.	Description
<b>MCS</b>	Single gate and door controller for 24 / 12 Volt motor up to 120 Watts
<b>Dimension</b>	140 x 90 mm

Part No.	Description
<b>MCSv2</b>	Single gate and door controller for 24 / 12 Volt motor above 120 Watts
<b>Dimension</b>	140 x 90 mm

## 240VAC Control Card for Double or Single Gate

with Eclipse® Operating System (EOS)



Part No.	Description
<b>MC240</b>	Double or Single gate and door controller for 240 Volt AC motor
<b>Dimension</b>	140 x 130 mm

Part No.	Description
<b>MC240E</b>	MC240 Control card enclosed in a case
<b>Dimension</b>	250 x 175 x 75 mm

# MCi-VSD with Eclipse®

## Gate and Door Controller with VSD (Variable Speed Drive)



MCi-VSD04



Optional external Push Buttons can be installed on request

### FEATURES

- ) Designed for 3-phase motors
- ) Durable metal enclosure
- ) Double or Single motor operation
- ) Eclipse Operating System (EOS)
- ) Motor soft start and soft stop
- ) Instant stop on obstruction
- ) 1-Touch control for easy setup
- ) Multiple photo beam functions
- ) Various inputs, push button, open only, close only, stop, pedestrian and photoelectric beam
- ) Service counters, password protection, holiday mode and many more features

### DESCRIPTION

The MCi Controller has been specifically designed to control Variable Speed Drives (VSD). Elsema's MCi-VSD kit comes with its own Omron VSD for controlling a 3-phase motors. There are 4 different kits available for different motor sizes.

The MCi card only version can also be used to control almost all types of VSD's or even contactors. The relay outputs on the MCi are voltage free contacts, allowing the user to connect it to VSD's Open, Close & Common inputs (Forward, Reverse & Common). It can also be used to operate coils of open and close contactors.

The MCi-VSD kit with Eclipse® Operating System (EOS) automatically does all the confusing and hard to find

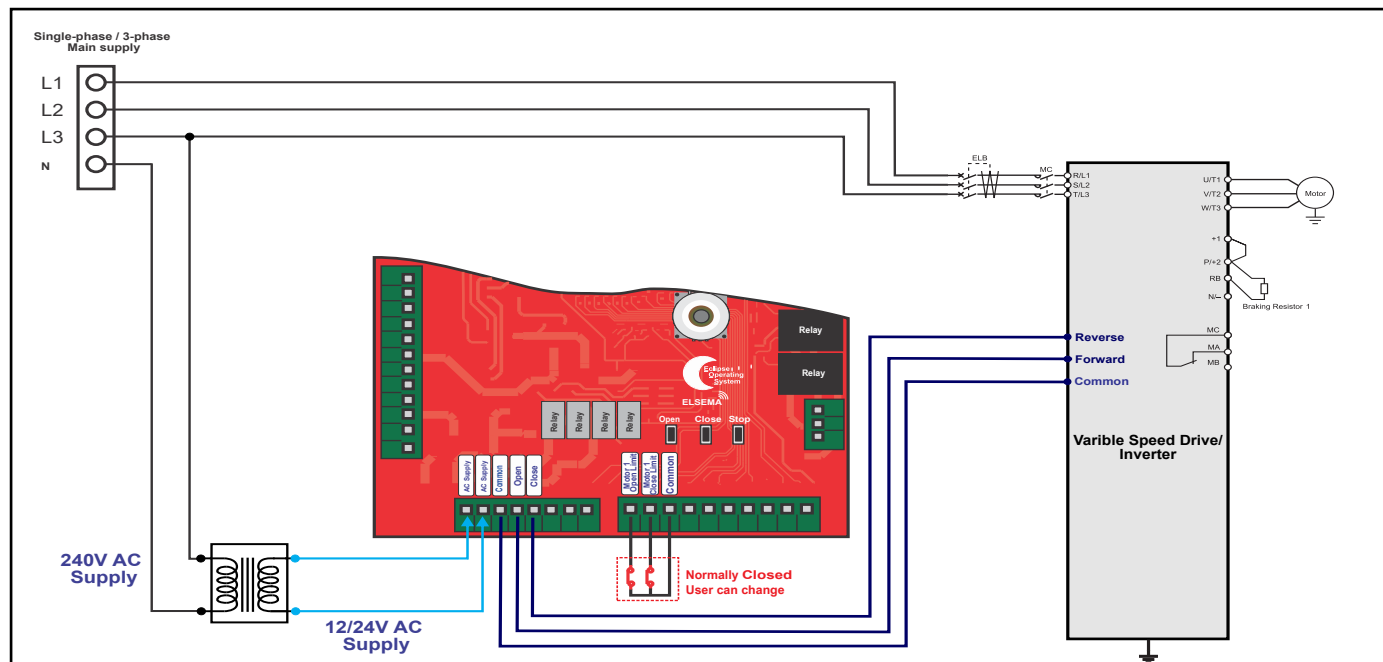
VSD parameters settings by simply asking the user a few questions. It also gives the user options for more advance settings, where the user can configure each parameter of the VSD. All selections are done in the control cards large LCD instead of the VSD.

**For detailed technical data visit:**  
**[www.elsema.com](http://www.elsema.com)**

Part Number	Description	Dimension
MCi-VSD04	Suitable for 0.4kW (1/2hp) motor	300x300x150mm
MCi-VSD07	Suitable for 0.75kW (1hp) motor	400x300x200mm
MCi-VSD15	Suitable for 1.5kW (2hp) motor	400x300x200mm
MCi-VSD22	Suitable for 2.2kW (3hp) motor	400x300x200mm

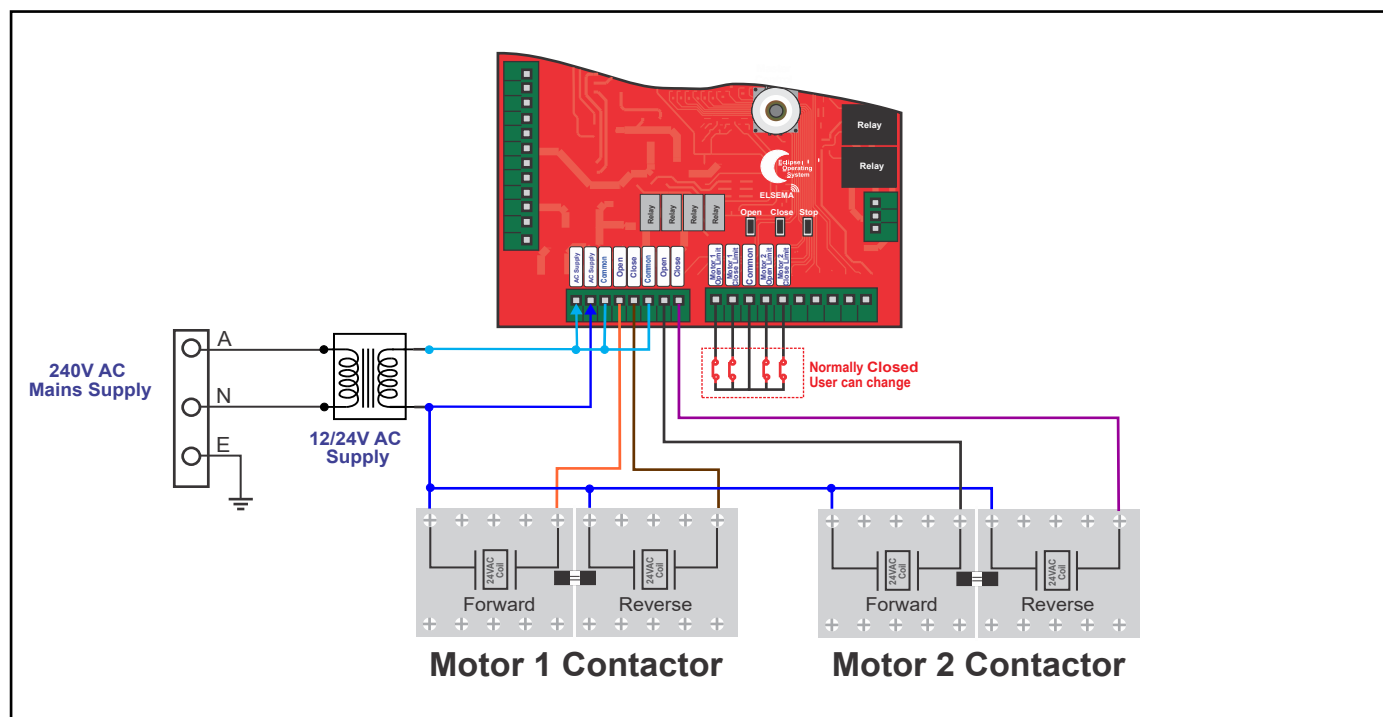
## VARIABLE SPEED DRIVE OUTPUT

The Voltage Free outputs are connected to a VSD as shown in the diagram. If 2 VSD's are used, use the VSD 2 output to connect to the second VSD.



## Connecting Contactors

Voltage Free outputs for motor 1 and motor 2 can also be used to control low voltage contactors. See connection diagram below.

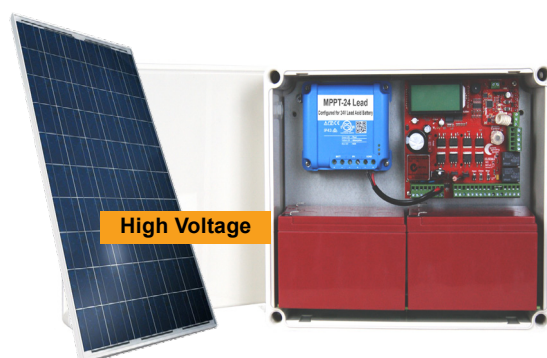


# Solar Kits for Single & Double Gate

## DESCRIPTION

Solar gate kits eliminate the need for mains power at your gates, harnessing solar energy instead. Elsema's 24 Volt Solar Kit (**Solar24SP**) includes a single 24 Volt, 40-watt solar panel and two deep cycle 15Ah batteries.

These kits are expertly assembled and designed in Australia. Featuring a weatherproof case, robust deep cycle batteries, and an intelligent control card, our kits ensure many years of dependable and secure operation.



### 24 Volt Solar Kit

40W Solar panel is included

Part Number	Solar24SP
Battery	Deep Cycle 15Ah
Solar Panel	40 Watts included
Dimension	340 x 280 x 130 mm



### 12 Volt Solar Kit

Solar panel is not included

Part Number	Solar12
Battery	Deep Cycle 15Ah
Solar Panel	Minimum 40 Watts
Dimension	280 x 280 x 130 mm

Download App to see Real-time battery charging data, battery health, solar panel output, charging history and more.

\*Smart charger has been optimised for the batteries which are supplied with it.

Do not change any settings!



Search for VictronConnect in App store

## FREQUENTLY ASKED QUESTIONS

- Are **deep cycle batteries** used? For solar gate automation deep cycle batteries must be used.
- What is the **size of the battery**? Larger batteries (Higher Ah) will allow more accessories and longer operation before the next charge. This is specified as the Ampere-hour (Ah) of the battery.
- What is the **stand-by current drain of the control card used in the solar kits**? The lower the current the better it is since your gates will operate longer with the solar energy. Stand-by currents are usually less than 30mA. Higher stand-by currents will consume more power from your batteries, reducing the solar energy stored.
- Where was the **control card designed**? Elsema's control cards are designed in Australia for the Australian conditions. Most of the other control cards on the market are imported from Asia and Europe and are not suitable for the Australian conditions.
- What is the **size of the solar panel**? For gate or door automation a minimum 40 watt panel is recommended. The size will depend on many factors. You can call Elsema's solar engineer who will guide you to the correct size.



# Waterproof PentaFOB® Series



## FEATURES

- ) Waterproof Keyring transmitters (IP66)
- ) Option of 1, 2, 4 or 5 channels
- ) Simultaneously transmits the encrypted code on 5 different frequencies, making it impossible for the remote to be interfered with or jammed
- ) Uses frequency hopping spread spectrum (FHSS)
- ) One of the most secure remote controls on the market
- ) Designed in Australia
- ) Complies to AS/NZS 4268, CE and FCC
- ) Works with all PCR Penta series of receivers



## DESCRIPTION

The Waterproof PentaFOB® works in conjunction with our standard PentaFOB® remotes and PCR series of receivers. It uses frequency hopping spread spectrum (FHSS). This means that when a button is pressed, it simultaneously transmits the encrypted code on five different frequencies. This makes it impossible for your remote control to be interfered with or jammed.

Available in 1, 2, 4 and 5 button configurations. The keyring retainer is moulded as part of the chassis making for a super sturdy keyring mount.

The PentaFOB® series is an extremely versatile remote control that can be customized through a range of configurations and colours to suit your needs.

## TECHNICAL DATA

Over 17 billion encrypted codes

Operating range of up to 100 metres depending on building structure and receiver antenna

18mA (typical) at 3 Volts DC supply during transmission

Battery life of 2 years with average use

Frequency Band: 433.100 to 434.700 MHz

Custom front design available

# PentaFOB® Series



## FEATURES

- ) Keyring transmitter with 1, 2, 4 or 5 channels
- ) Simultaneously transmits the encrypted code on 5 different frequencies, making it impossible for the remote to be interfered with or jammed
- ) Uses frequency hopping spread spectrum (FHSS)
- ) One of the most secure remote controls on the market
- ) Designed in Australia
- ) Competitive pricing
- ) Complies to AS/NZS 4268, CE and FCC
- ) Works with all PCR Penta series of receivers



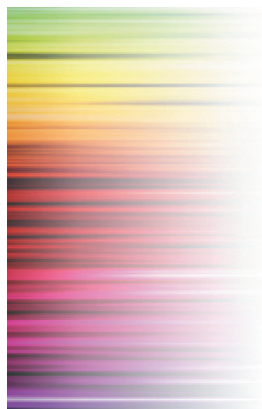
The PentaFOB® is an extremely versatile remote control that can be customized through a range of configurations and colours to suit your needs.

## DESCRIPTION

The PentaFOB® uses frequency hopping spread spectrum (FHSS). This means that when a button is pressed, it simultaneously transmits the encrypted code on five different frequencies. This makes it impossible for your remote control to be interfered with or jammed.

Available in 1, 2, 4 and 5 button configurations. The keyring retainer is moulded as part of the chassis using reinforced nylon making for a super sturdy keyring mount.

The PentaFOB® series is an extremely versatile remote control that can be customized through a range of configurations and colours to suit your needs.



Case Black  
Upper Orange



Case Black  
Upper Green



Case Black  
Upper Black

Choose from a range of colour options. Mix and match!

# PentaCODE® Series



## FEATURES

- ) Keyring transmitter with 2 or 4 channels
- ) Dual Coding System simultaneously transmits the code on 5 different frequencies, making it impossible for the remote to be interfered with or jammed
- ) Uses frequency hopping spread spectrum (FHSS)
- ) One of the most secure remote controls on the market
- ) Designed in Australia
- ) Complies to AS/NZS 4268, CE and FCC
- ) Competitive pricing
- ) Works with all PCR Penta series of receivers



## DESCRIPTION

The PentaCODE® dual coding system gives the installer the option to use the classic 12-way dip switch coding or one of over 17 billion encrypted codes.

With the 12-way dip switch, just match the keyring remotes and the receiver's dip switch and it's coded.

With the encrypted code you switch all the 12- way dip

switches OFF and the remote and receiver automatically goes into the encrypted coding.

The PentaCODE® remotes, when used in encrypted mode, can be programmed from another working remote.

## TECHNICAL DATA

12-way dip switch coding or one of over 17 billion encrypted codes

Option of 2 or 4 buttons

Operating range of up to 200 metres depending on building structure and receiver antenna

18mA (typical) at 12 Volts DC supply during transmission

Battery life of 1.5 years with average use

Frequency Band: 433.100 to 434.700 MHz

Custom print available for front labels

# 4G GSM Gate Opener



Part Number: G4000

## FEATURES

- ) Up to 2000 users
- ) Universal Compatibility
- ) Secure password protected
- ) Easy setup with ELSEMA App
- ) Digital input for sensor or switch
- ) Proudly Australian designed & owned
- ) Switches relay with free call from mobile phone
- ) Only authorized numbers can operate the G4000
- ) Operates from anywhere if 4G network is available

## DESCRIPTION

Combining the power of 4G wireless connectivity with innovative technology, the G4000 offers unparalleled convenience, security, and control for both residential and commercial applications. With its easy installation and user-friendly interface, managing your device has never been this simple.

The G4000 is designed by Elsema in Australia and uses high quality Canadian designed 4G module. All you need is to insert an active SIM card and program the phone numbers of all users.

**Easy Remote Access:** With the Elsema App, available for both iOS and Android devices, you can conveniently setup from anywhere using your smartphone. Grant or revoke access to visitors, monitor usage, and receive real-time notifications for added security.

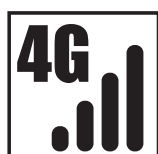
## TECHNICAL DATA

Power Supply: 12 Volts DC

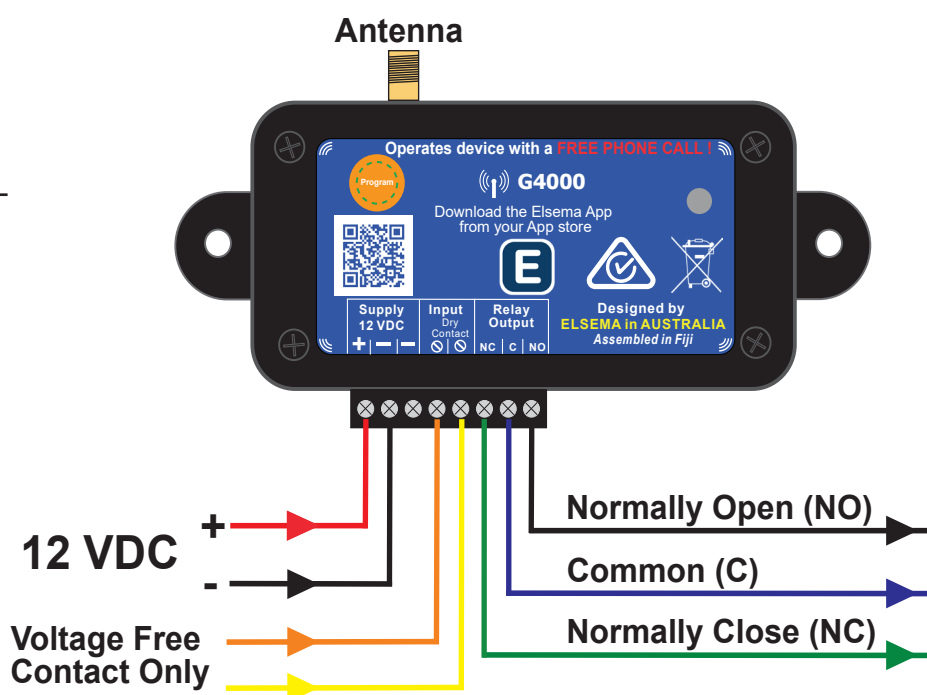
Network: Telstra, Vodafone

Output: Changeover Relay output

Dimension: 136 x 85 x 35mm



## G4000 Connection





## PHOTOELECTRIC BEAMS

### DESCRIPTION

The photoelectric beam works with any Elsema type automatic gate or door controller cards used on sliding, swing or roller doors. It is usually used as a safety device to control automatic gates and doors.

For detailed technical data visit [www.elsema.com/automatic-gates/photocell](http://www.elsema.com/automatic-gates/photocell)

### PE1500

**Long Range Retro reflective type photoelectric beam with Polarised Polycarbonate case**

Type	Polarised retro reflective type
Supply	12-250 Volts AC/DC
Sensing Range	10 metres



### PE24

**12-24 Volts AC/DC Through beam type**

Type	Through beam type
Supply	12-24 Volts AC/DC
Sensing Range	10 metres (Outdoor) 30 metres (Indoor)



## SAFETY BUMP STRIP

### DESCRIPTION

The Safety bump strip is a safety device and is recommended to be installed on high speed gates. When the bump strip hits a person or an object, it will stop the gate instantly. It will also cushion the impact. Safety bump strip is carefully designed, manufactured and tested to ensure superior quality.

Bump Strip Length: 1.5 metres

Battery operated transmitter included

Stops the gate when compressed



Part Number: Bump Strip



# Vehicle Loop Detectors

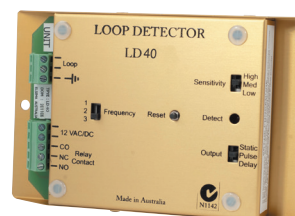
## DESCRIPTION

An inductive loop detector is used to detect motor vehicles. When the motor vehicle drives over the in-ground loop, the detector senses the metal and activates a relay. This relay is connected to the motor controller card to automatically open the gate or door. Elsema sells high and medium sensitivity detectors.

LD40 is a high sensitive detector ideal for industrial/commercial applications.

### LD40

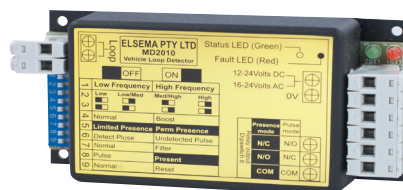
Sensitivity	High
Supply	12-24 Volts AC/DC
Output	Single relay output



MD2010 is a medium sensitive detector ideal for domestic applications.

### MD2010

Sensitivity	Medium
Supply	12-24 Volts AC/DC
Output	Single relay output



# Pre-made Ground Loops

## DIRECT BURIAL LOOPS

Superior choice for embedding under concrete, asphalt, pavers, or gravel roads. This robust wiring solution is commonly fastened directly to rebar before pouring concrete, ensuring a seamless and secure integration.

Experience the reliability of our Direct Burial Loop, uniquely designed for direct burial applications. By eliminating air pockets, our loops significantly reduce the occurrence of phantom detections triggered by ground vibrations, minimizing the need for repetitive service calls.

Installing a Direct Burial loop over rebar is a snap! Simply offset the loop from the rebar pattern and tie it down with the supplied cable ties.

### DBL7

Application	Domestic	Commercial
Driveway width	Up to 3.6m	Up to 3.3m
Loop Size	1.2 x 2.4m	1.8 x 1.8m

### DBL10

Application	Domestic	Commercial
Driveway width	Up to 4.8m	Up to 4.2m
Loop Size	1.2 x 3.6m	1.8 x 3.0m



Pre-formed direct burial loop

## SAW CUT LOOPS

Saw-cut loops streamline installation, offering a hassle-free solution that notably prevents false detections and detector lock-ups—common issues that often necessitate repeat service calls in newly installed gate systems. Diagnosing such problems can be challenging, especially when air pockets are the underlying cause.

Our saw-cut loops feature a robust polyethylene outer jacket that encases nylon-coated, polyethylene insulated 16AWG stranded wire, ensuring durability and protection. Each loop includes a wing-shaped backer-rod designed to snugly fit into a 3/16" saw-cut groove. This precise fit allows installers to apply sealant smoothly over a flat surface, significantly reducing the amount of loop sealant needed by at least 30% compared to traditional hand-wrapped wires in a 1/4" wide groove. Opt for our saw-cut loops for a reliable, cost-effective installation that maintains the integrity of your gate systems.

### SCL7

Application	Domestic	Commercial
Driveway width	Up to 3.6m	Up to 3.3m
Loop Size	1.2 x 2.4m	1.8 x 1.8m

### SCL10

Application	Domestic	Commercial
Driveway width	Up to 4.8m	Up to 4.2m
Loop Size	1.2 x 3.6m	1.8 x 3.0m



Pre-formed saw-cut loop

ACCESSORIES

For detailed technical data visit [www.elsema.com/automatic-gates/inductive-loop](http://www.elsema.com/automatic-gates/inductive-loop)

# Loop Goop

## DESCRIPTION

**Loop Goop** (Sealant) is a tough and durable polyurethane resin designed to encapsulate, protect and insulate inductive loops for garage doors, gates, and parking applications. Effectively seals out moisture and provides exceptional chemical resistance to gasoline, motor oil, hydraulic brake fluid and other hydrocarbons. Loop Goop remains strong, flexible and resilient in cold & hot weather. It provides superior adhesion to wires and saw cuts in concrete and asphalt.

**Wedge Tool** allows installers to quickly and easily roll loop wire into the bottom of the saw-cut groove while standing. It is made of smooth and durable PVC that will not nick the loop wire.

The flat and angled wedge tools allow installers to easily push wire down into 135° dog eared corner cuts.

Cutting at the proper depth and width can yield significant savings in loop sealant.

Tubes of Loop Sealant Needed to Seal Loop and Entire Length of Lead-in				
Saw cut loop & Loop size	3/16" Groove		1/4" Groove	
	1 1/4" Depth	1 1/2" Depth	1 1/4" Depth	1 1/2" Depth
<b>SCL7</b> 1.2x2.4m or 1.8x1.8m	8	10	10	12
<b>SCL10</b> 1.2x3.6m or 1.8x3.0m	8	10	10	13
	Recommended			



Saw-Cut Loop Sealant with Flat 3/16" Sealant Tip

Part Number: LG



Caulking Gun

Part Number: LG-Gun



Wedge Tools

Wedge Tool allows installers to quickly and easily roll loop wire into the bottom of the saw-cut groove

## LOCKING ACTUATOR

### DESCRIPTION

Locking actuators should be installed when using hydraulic swing gate operators or any other type of swing gate operators. Elsema's LA24 Locking actuator has a 50mm stroke and a 20mm stainless steel shaft.

Supply	24 Volts DC
Stroke	50mm
Dimensions	551 x 112 x 74mm



Part Number: LA24

## MAGNETIC LOCKS

### DESCRIPTION

Elsema stocks electromagnetic locks for all types of doors and gates. Our models are designed to secure any type of door or gate that closes against a fixed stop. All of our lock components are carefully designed, manufactured and tested to ensure superior quality.

### Waterproof Magnetic lock with 280kg holding force

Holding force	280kg
Supply	Can be 12 or 24 Volts DC
Dimensions	200 x 44 x 40mm



Part Number: ML280

### Waterproof Magnetic lock with 500kg holding force

Holding force	500kg
Supply	Can be 12 or 24 Volts DC
Dimensions	220 x 64 x 41mm



Part Number: ML500

For detailed technical data visit [www.elsema.com/automatic-gates/magneticlock](http://www.elsema.com/automatic-gates/magneticlock)

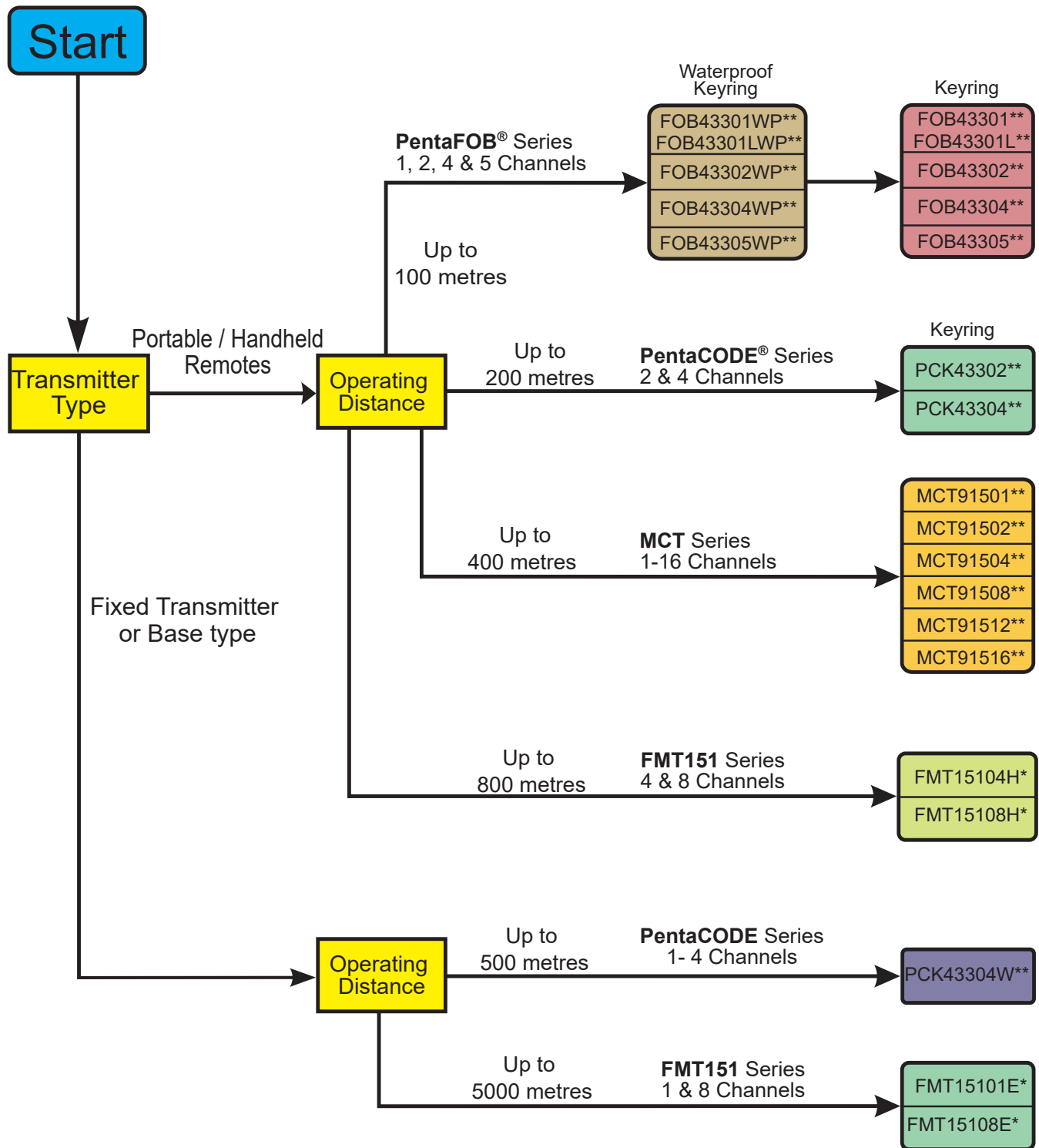
# ELSEMA

A graphic of concentric curved lines representing a wireless signal, transitioning from orange to red.

## Wireless Communications



# Transmitter Selection Guide



Available in Durable metal case

\* Excellent Interference Immunity. Recommended for industrial application where there is electrical generated noise. Eg. Electric motors, computers etc.

\*\* Uses frequency hopping, allows simultaneous operation of more than one transmitter to operate in the same area.

# Elsema Receiver Selection Guide

## 433MHz PCR Series

Product	PCR43301RE	PCR43301240R	PCR433WG	PCR43302P	
Number of Channels	1	1	Weigand Output	2	
Supply Voltage	12 - 24 VAC/DC	240VAC	12 - 24 VAC/DC	7 - 36 VDC	
Switching Current	10 Amps	16 Amps	N/A	Open Collector Output	
Compatible Transmitters	PentaCODE® PentaFOB®	PentaCODE® PentaFOB®	PentaCODE®	PentaCODE® PentaFOB®	
Compatible Antennas	ANT433MHz Series	ANT433MHz Series	ANT433MHz series	ANT433MHz Series	
In IP66 Enclosure		PCR43301240RE			

## 151MHz FMT Series

Product	FMR15101	FMR15101240	FMR15102	FMR15102240	
Number of Channels	1	1	2	2	
Supply Voltage	12 - 24 VAC/DC	240 VAC	12 - 24 VAC/DC	240 VAC	
Switching Current	10 Amps	16 Amps	10 Amps	16 Amps	
Compatible Transmitters	151MHz FMT-Series	151MHz FMT-Series	151MHz FMT-Series	151MHz FMT-Series	
Compatible Antennas	ANT 151MHz Series	ANT 151MHz Series	ANT 151MHz Series	ANT 151MHz Series	
In IP66 Enclosure	FMR15101E	FMR15101240E	FMR15102E	FMR15102240E	

	PCR43302R	PCR43302240R	PCR43304R	PCR43305R	PCR433USB	PentaFOB® Programmer
	2	2	4	5		Used for advanced programming of the Penta series Receivers when used with PentaFOB® remotes
	12 - 24 VAC/DC	240VAC	12 - 24 VAC/DC	12 - 24 VAC/DC	USB	
	10 Amps	16 Amps	10 Amps	10 Amps	N/A	
	PentaCODE® PentaFOB®	PentaCODE® PentaFOB®	PentaCODE® PentaFOB®	PentaCODE® PentaFOB®	PentaCODE®	
	ANT433MHz Series	ANT433MHz Series	ANT433MHz Series	ANT433MHz Series	ANT433MHz Series	
	<b>PCR43302RE</b>	<b>PCR43302240RE</b>	<b>PCR43304RE</b>	<b>PCR43305RE</b>		

	FMR15104	FMR15104240	FMR15108	FMR15108R
	4	4	8	8
	12 - 24 VAC/DC	240 VAC	12 - 24 VAC/DC	12 - 24 VAC/DC
	10 Amps	16 Amps	Open Collector Output	10 Amps
	151MHz FMT-Series	151MHz FMT-Series	151MHz FMT-Series	151MHz FMT-Series
	ANT 151MHz Series	ANT 151MHz Series	ANT 151MHz Series	ANT 151MHz Series
	<b>FMR15104E</b>	<b>FMR15104240E</b>		<b>FMR15108RE</b>

# Elsema Receiver Selection Guide

## 433MHz Gigalink® Series

Product	GLR43301	GLR43301240	GLR43302SS GLR43302SST	GLR43302	GLR43302240	
Number of Channels	1	1	2	2	2	
Supply Voltage	12 - 24 VAC/DC	240 VAC	7.5 - 28 VDC	12 - 24 VAC/DC	240 VAC	
Switching Current	10 Amps	16 Amps	Open Collector Output	10 Amps	16 Amps	
Compatible Transmitters	433MHz GLT-Series	433MHz GLT-Series	433MHz GLT-Series	433MHz GLT-Series	433MHz GLT-Series	
Compatible Antennas	ANT 433MHz Series	ANT 433MHz Series	ANT 433MHz Series	ANT 433MHz Series	ANT 433MHz Series	
In IP66 Enclosure		GLR43301240E		GLR43302E	GLR43302240E	

## 915MHz MCR Series

Product	MCR91501R	MCR91502P MCR91502PT	MCR91502R	MCR91504R	MCR91508POS	
Number of Channels	1	2	2	4	8	
Supply Voltage	12 - 24 VAC/DC	7 - 36 VDC	12 - 24 VAC/DC	12 - 24 VAC/DC	12 - 24 VAC/DC	
Switching Current	10 Amps	Open Collector Output	10 Amps	10 Amps	Positive Switching Outputs	
Compatible Transmitters	915MHz / MCT-Series	915MHz / MCT-Series	915MHz / MCT-Series	915MHz / MCT-Series	915MHz / MCT-Series	
Compatible Antennas	ANT 915MHz Series	ANT 915MHz Series	ANT 915MHz Series	ANT 915MHz Series	ANT 915MHz Series	
In IP66 Enclosure	MCR91501RE		MCR91502RE	MCR91504RE		

	<b>GLR43304</b>	<b>GLR43304240</b>	<b>GLR43308POS</b>	<b>GLR43308</b>	<b>GLR43308R</b>
	4	4	8	8	8
	12 - 24 VAC/DC	240 VAC	12 - 24 VAC/DC	12 - 24 VAC/DC	12 - 24 VAC/DC
	10 Amps	16 Amps	Positive Switching Outputs	Open Collector Output	10 Amps
	433MHz GLT-Series	433MHz GLT-Series	433MHz GLT-Series	433MHz GLT-Series	433MHz GLT-Series
	ANT 433MHz Series	ANT 433MHz Series	ANT 433MHz Series	ANT 433MHz Series	ANT 433MHz Series
	<b>GLR43304E</b>	<b>GLR43304240E</b>		<b>GLR43308E</b>	<b>GLR43308RE</b>

	<b>MCR91508SS</b>	<b>MCR91508R</b>	<b>MCR91512R</b>	<b>MCR91516SS</b>	<b>MCR91516R</b>
	8	8	12	16	16
	12 - 24 VAC/DC	12 - 24 VAC/DC	12 - 24 VAC/DC	12 - 24 VAC/DC	12 - 24 VAC/DC
	Open Collector Output	10 Amps	10 Amps	Open Collector Output	10 Amps
	915MHz / MCT-Series	915MHz / MCT-Series	915MHz / MCT-Series	915MHz / MCT-Series	915MHz / MCT-Series
	ANT 915MHz Series	ANT 915MHz Series	ANT 915MHz Series	ANT 915MHz Series	ANT 915MHz Series
		<b>MCR91508RE</b>	<b>MCR91512RE</b>		<b>MCR91516RE</b>



# Waterproof PentaFOB® Remotes



## FEATURES

- ) Waterproof Keyring transmitters (IP66)
- ) Option of 1, 2, 4 or 5 channels
- ) Simultaneously transmits the encrypted code on 5 different frequencies, making it impossible for the remote to be interfered with or jammed
- ) Uses frequency hopping spread spectrum (FHSS)
- ) One of the most secure remote controls on the market
- ) Designed in Australia
- ) Complies to AS/NZS 4268, CE and FCC
- ) Works with all PCR Penta series of receivers



Part Number	Description
FOB43301WP	1-Button, Keyring Remote
FOB43301LWP	1-Large Button, Keyring Remote
FOB43302WP	2-Button, Keyring Remote
FOB43304WP	4-Button, Keyring Remote
FOB43305WP	5-Button, Keyring Remote



## TECHNICAL DATA

Over 17 billion encrypted codes

18mA (typical) at 3 Volts DC supply during transmission

Operating range of up to 100 metres depending on building structure and receiver antenna

Operating frequency: 433.100 to 434.700 MHz

Custom front design available

Works with all PCR Penta series of receivers

# Industrial PentaFOB® Remote



**FOB43302H**

## FEATURES

- ) PentaFOB® remote with 2 raised buttons
- ) Transmits on 5 different frequencies
- ) Uses frequency hopping spread spectrum (FHSS)
- ) One of the most secure remote controls on the market
- ) Designed in Australia
- ) Competitive pricing
- ) Works with all PCR Penta series of receivers



PentaFOB® SERIES

## DESCRIPTION

The FOB43302H is a hand-held remote control in an industrial case. It has large raised buttons which can easily be pressed even while wearing industrial gloves.

The remote comes with a robust rubber boot which protects it in an event of being dropped or accidentally knocked against hard surfaces.

FOB43302H is powered by 2 x AA batteries for longer life cycle.

## TECHNICAL DATA

Powered by 2 x AA batteries

Over 17 billion encrypted codes

18mA (typical) at 3 Volts DC supply during transmission

Operating range of up to 100 metres depending on building structure and receiver antenna

Operating frequency: 433.100 to 434.700 MHz

Dimensions: 125 x 75 x 35 mm

Works with all PCR Penta series of receivers

# Keyring PentaFOB® Remote

The next generation of remote controls, superior to normal garage door rolling code remotes

PentaFOB® SERIES

## COLOUR OPTIONS

Personalise FOB remotes to match your personal choice or your company colour. Five different colours to choose from.

Default colour is orange. Add the colour code to the end of the part number to order a different colour.

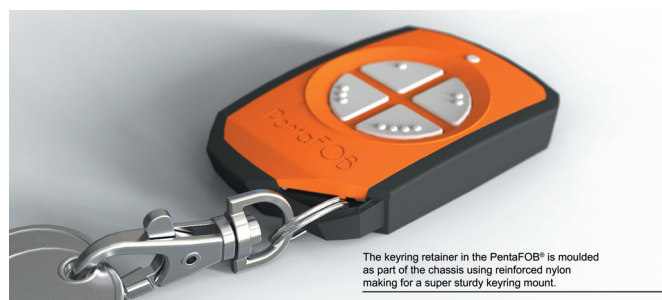
BLK = Black  
Lime = Green  
xxx = Orange



Part Number	Description
FOB43301	1-Button, Keyring Remote
FOB43301L	1-Large Button, Keyring Remote
FOB43302	2-Button, Keyring Remote
FOB43304	4-Button, Keyring Remote
FOB43305	5-Button, Keyring Remote

## FEATURES

- ) Keyring transmitter with 1, 2, 4 or 5 channels.
- ) Simultaneously transmits the encrypted code on 5 different frequencies, making it impossible for the remote to be interfered with or jammed
- ) Uses frequency-hopping spread spectrum (FHSS)
- ) One of the most secure remote controls on the market
- ) Designed in Australia
- ) Competitive pricing



The keyring retainer in the PentaFOB® is moulded as part of the chassis using reinforced nylon making for a super sturdy keyring mount.



Case Black  
Upper Orange



Case Black  
Upper Green



Case Black  
Upper Black

Choose from a range of colour options. Mix and match!  
If you require a custom Pantone® colour please contact us for more information

# PentaFOB® Wall Switch



**FOB Switch or  
FOB Switch Kit** (PCR43301RE receiver included)

## FEATURES

- ) Ultra slim and stylish design for wall mount
- ) Compatible with standard single-gang electrical box or just screw directly on to the wall
- ) Easily replace battery without removing from the wall
- ) Uses frequency hopping spread spectrum (FHSS)
- ) Designed in Australia
- ) Competitive pricing
- ) Works with all PCR Penta series of receivers



## DESCRIPTION

The wireless wall remote can be mounted on the standard single-gang electrical wall box or directly on to the wall. It can wirelessly control lights, automatic gates and garage doors. It transmits a wireless signal to the Penta receiver which switches relays to turn the device On and Off. No need to run wires from the wall remote to the lights. Just mount the wall remote on the wall and connect Penta receiver to the light. Modern design and ultra-thin profile.

This wireless wall remote uses PentaFOB® technology

## TECHNICAL DATA

Operating range of up to 100 metres depending on building structure and receiver antenna

Over 17 billion encrypted codes

18mA (typical) at 3 Volts DC supply during transmission

Battery life of 2 years with average use

Operating frequency: 433.100 to 434.700 MHz

Works with all PCR Penta series of receivers



# Hard Wired PentaFOB® Transmitter

PentaFOB® SERIES



FOB43301W

## FEATURES

- ) 2 x AAA battery operated
- ) 100m line of sight operation possible
- ) Simultaneously transmits the encrypted code on 5 different frequencies, making it impossible for the remote to be interfered with or jammed
- ) Uses frequency-hopping spread spectrum (FHSS)
- ) Designed in Australia
- ) Competitive pricing

**Ideal for wireless push button, PLC controls or anywhere else you need a wireless signal to transmit a contact closure.**

## DESCRIPTION

The FOB43301W is a 1-channel PentaFOB® transmitter designed to be used with external normally open or normally closed contact closure. You can wire in push buttons or easily integrate it into your existing equipment. The transmitter is housed in a compact enclosure with terminal block for easy wiring. A line of sight operating range of 100 metres is possible. The transmitter is powered by 2 x AAA batteries and has a low battery indicator. LED will start flashing when the battery is low.

## TECHNICAL DATA

Supply Voltage	2 x AAA Battery
Operating Frequency	433.100 to 434.700MHz
Operating Range	100 metres line of sight
Number of Inputs	1 voltage free contact (Normally Open or Normally Closed)
Connections	Screw type terminal block
Dimensions	65mm x 60mm x 35mm
Useable Receivers	All Elsema 433MHz Penta series



# PentaFOB® Programmer

## FEATURES

- ) Add, Delete and Edit individual PentaFOB® transmitters from the receiver
- ) Backup and Restore receiver's memory to mini FOB chips
- ) Easy-to-read with a large LCD display with back light
- ) 1-touch Master control for quick and easy setup
- ) 1 backup or restore chip is included
- ) USB programming cable included
- ) Password protect the receiver
- ) Ergonomically designed case
- ) No battery is required

PentaFOB® SERIES



PentaFOB® Programmer

## DESCRIPTION

The PentaFOB® programmer can add, edit and delete individual PentaFOB® transmitters from the receiver's memory. Simply plug-in the USB cable on the back of the programmer and the other end of the cable to the receiver. The programmer will automatically detect the receiver model number and then display the corresponding information. With the easy-to-read 4-line large LCD the setup can be done quickly with clear instructions displayed on the screen. The programmer has a password feature which allows you to lock the receivers to prevent any unauthorised access to the receiver's memory.

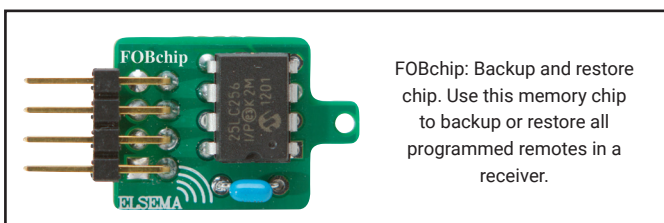
There is a backup or restore memory chip (FOBchip) included with each programmer. This chip is used to backup or restore the contents of a receiver. When there are 100's of transmitters programmed to a receiver the installer normally backs up the receiver memory in case the receiver is damaged or lost.

Additional backup or restore chips are sold separately.

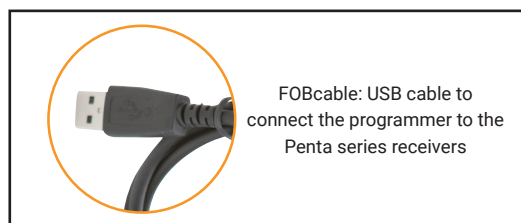
## TECHNICAL DATA

Dimensions	102mm x 140mm x 50mm
Display	4-Line LCD display

## ACCESSORY



FOBchip: Backup and restore chip. Use this memory chip to backup or restore all programmed remotes in a receiver.



FOBcable: USB cable to connect the programmer to the Penta series receivers

# Keyring PentaCODE® Remote

The next generation of remote controls, superior to normal garage door rolling code remotes

Part Number	Description
PCK43302	2-channel, keyring transmitter
PCK43304	4-channel, keyring transmitter
SV100	Sun visor holder or belt clip for keyring transmitter
WB100	Wall mount bracket for the keyring transmitter

PentaCODE® SERIES



## FEATURES

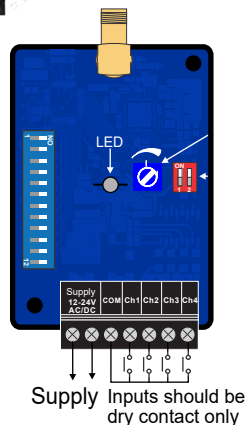
- ) Keyring transmitter with 2 or 4 channels
- ) Dual Coding System, 12-way dipswitch coding or one of over 17 billion encrypted codes
- ) Simultaneously transmits the code on 5 different frequencies, making it impossible for the remote to be interfered with or jammed
- ) Uses frequency-hopping spread spectrum (FHSS)
- ) One of the most secure remote controls on the market
- ) Designed in Australia and competitive pricing
- ) AS/NZS 4268, CE and FCC Certified



# Hard Wired PentaCODE® Transmitter



**PCK43304W**



Block Diagram

## FEATURES

- ) 12 to 24 Volts AC/DC supply
- ) 500m line of sight operation possible
- ) 12-way dipswitch or encrypted coding
- ) Compatible with all Penta series receivers
- ) Low standby current. Ideal for battery operation
- ) Frequency hopping between 433.100 to 434.700 MHz

**Transmitter inputs can be reed switches, toggle switches, push buttons, PLC or any normally open (NO) contact.**



## DESCRIPTION

The PCK43304W is a 4-channel PentaCODE® transmitter designed to be used with external normally open contact closures. You can wire in push buttons or easily integrate it into your existing equipment. The transmitter is housed in a compact 70 x 50 mm enclosure with terminal block for easy wiring. A line of sight operating range of 500 metres is possible.

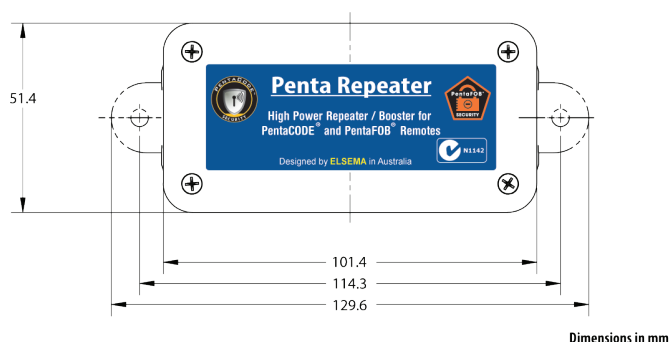
## TECHNICAL DATA

Supply Voltage	12 - 24 Volts AC or DC
Standby Current	6uA standby at 12 Volts DC. (Suitable for battery operation)
Current Consumption	27mA when transmitting
Operating Frequency	433.100 to 434.700MHz
Operating Range	500 metres with ANT433S antenna
Number of Inputs	4 dry contacts, optically isolated
Connections	Screw type terminal block. See block diagram
Dimensions	90mm x 50mm x 25mm
Useable Receivers	All Elsema 433MHz Penta series

# Repeater / Booster



**PCTR433**



## FEATURES

- ) Compatible with "PentaFOB®" and "PentaCODE®"remotes
- ) Micro USB or external supply
- ) Unlimited remotes can be programmed
- ) Highly sensitive receiver input stage
- ) Crystal controlled for high reliability
- ) Easy mounting to walls

## DESCRIPTION

The Penta Repeater, intelligently repeats the transmission from the PentaFOB® and PentaCODE® remote's. The repeated signal is transmitted with high RF power which can increase the operating range of the remotes to 500 metres. The repeater can be powered either by the micro USB connection or 12-24 Volts AC/DC supply.

If multiple repeaters are used for the same application, each repeater can be given different addresses with the digital display.

The repeaters memory can be backed up using the PentaFOB programmer.

## TECHNICAL DATA

Supply Voltage	11 - 28 Volts AC/DC or Micro USB
Current Consumption	25mA standby
Operating Frequency	433.100 to 434.700 MHz
Useable Transmitters	All Elsema type PCK433 & FOB433 series
Useable Receivers	All Elsema type Penta Receivers
Operating Range	Up to 500 metres depending on building structure and antenna



# PCR series receivers compatible with PentaFOB® & PentaCODE® Remotes

All PCR Penta series receives can be purchased in an IP66 enclosure



**PCR43301RE**

<b>Channels</b>	1 relay output
<b>Supply</b>	12-24 Volts AC/DC



**PCR43301240R**



**PCR43301240RE (IP66 enclosure)**

<b>Channels</b>	1 relay output
<b>Supply</b>	240 Volts AC



**PCR43302R**



**PCR43302RE**

<b>Channels</b>	2 relay outputs
<b>Supply</b>	12-24 Volts AC/DC



**PCR43302240R**



**PCR43302240RE (IP66 enclosure)**

<b>Channels</b>	2 relay outputs
<b>Supply</b>	240 Volts AC



**PCR43304RE (IP66 enclosure)  
PCR43304R**

<b>Channels</b>	4 relay outputs
<b>Supply</b>	12-24 Volts AC/DC



**PCR43305RE (IP66 enclosure)  
PCR43305R**

<b>Channels</b>	5 relay outputs
<b>Supply</b>	12-24 Volts AC/DC



**PCR43302P**

<b>Channels</b>	2 outputs (Open Collector)
<b>Supply</b>	7-36 Volts DC



**PCR433WG**

<b>Output</b>	Wiegand Output
<b>Supply</b>	12-24 Volts AC/DC



**PCR433USB**

<b>Output</b>	USB
<b>Supply</b>	12-24 Volts AC/DC

PENTA SERIES

# FMT Series. 151MHz Transmitters

## Base Station



**FMT15101E**



**FMT15108E**



**FMT15108**

Terminal block for wiring reed switches, toggle switches, push buttons.

## Hand-held Type



**FMT15104H**



**FMT15108H**

## TECHNICAL DATA

<b>Power Source</b>	11.0 - 13.6 VDC	
<b>Current Consumption</b>	85mA during transmission	
<b>Operating Frequency</b>	151.600MHz (8 user selectable frequencies)	
<b>Dimensions</b>	90 x 56 x 15mm (PCB assembly)	140 x 60 x 34mm (enclosed)
<b>Useable Operating Range</b>	Up to 5000 metres, depending on installation and type of antenna used. Up to 800 metres for Hand-held remotes	
<b>Compatible Receivers</b>	Elsema type FMR151... series (with correct setting on the dipswitch)	

## DESCRIPTION

This FMT151 series gives a controlled range of up to 5000 metres. The controlled operation can be any electronic or electrical operated device when used with the FMR151... series of receivers.

The channels are activated via screw type terminals onto which the user can connect reed switches, toggle switches, push buttons or any form of normally open (NO), voltage free contact.

## ACCESSORY



9 VOLT  
DURACELL  
BATTERY  
PART NO:  
6LR61



PROTECTIVE  
SILICONE COVER  
PART NUMBER: SIL08

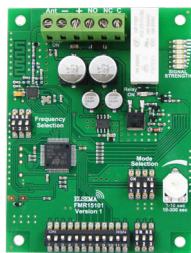


RUBBER BOOT  
PART NO: RUB8



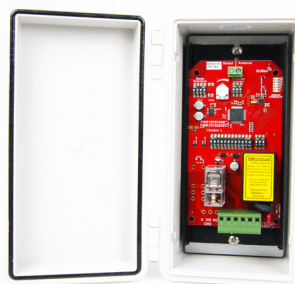
# FMR Series. 151MHz Receivers

All 151MHz series receives can be purchased in an IP66 enclosure



**FMR15101E (IP66 enclosure)**  
**FMR15101**

<b>Channels</b>	1 relay output
<b>Supply</b>	12-24 Volts AC/DC



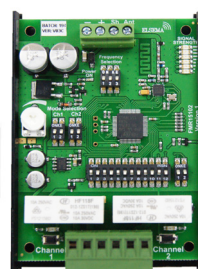
**FMR15101240E (IP66 enclosure)**  
**FMR15101240**

<b>Channels</b>	1 relay output
<b>Supply</b>	240 Volts AC



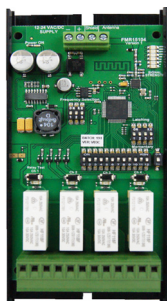
**FMR15102240RE (IP66 enclosure)**  
**FMR15102240**

<b>Channels</b>	2 relay outputs
<b>Supply</b>	240 Volts AC



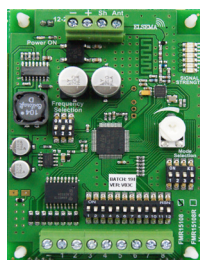
**FMR15102E (IP66 enclosure)**  
**FMR15102**

<b>Channels</b>	2 relay outputs
<b>Supply</b>	12-24 Volts AC/DC



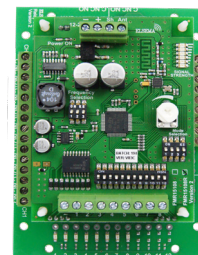
**FMR1510104E (IP66 enclosure)**  
**FMR15104**

<b>Channels</b>	4 relay outputs
<b>Supply</b>	12-24 Volts AC/DC



**FMR15108E (IP66 enclosure)**  
**FMR15108**

<b>Channels</b>	8 outputs (Open Collector)
<b>Supply</b>	12-24 Volts AC/DC



**FMR15108RE (IP66 enclosure)**  
**FMR15108R**

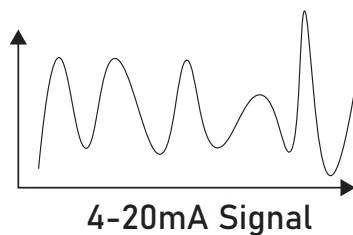
<b>Channels</b>	8 relay outputs
<b>Supply</b>	12-24 Volts AC/DC

FMR151 RECEIVER

# Analogue Transmitter



**TXA15101E**



## FEATURES

- ) 1 Analog input which is 4-20mA with 10 bit accuracy
- ) 1 Digital input which is a voltage-free contact
- ) User selectable up to 8 different frequencies
- ) Compatible with RXA15101E receiver
- ) Easy to program and install with code switch technology.
- ) Available with durable alloy metal case
- ) Not affected by natural or man-made electrical interference
- ) User selectable sampling rate for analog input

## DESCRIPTION

The TXA15101E is an analog and digital 151MHz transmitter. The analog signal, normally 4-20mA is transmitted and then recreated at the receivers (RXA15101E) analog output. Also, the digital input can be simultaneously transmitted with the analog signal. This eliminates the high cost of wiring and has the flexibility of wireless data collection.

Using 151MHz has superior penetration in congested industrial environments with steel construction. Higher frequencies such as 433MHz or 915MHz tend to reflect off metal and make wireless data collection difficult.

## TECHNICAL DATA

<b>Power Source</b>	11.0 - 13.6 VDC
<b>Current Consumption</b>	85mA transmitting. 12mA on standby
<b>Operating Frequency</b>	151.600MHz (8 user selectable frequencies)
<b>Dimensions</b>	140 x 60 x 34mm
<b>Useable Operating Range</b>	Up to 5000 metres, depending on installation and type of antenna used.
<b>Compatible Receivers</b>	Elsema type RXA15101E

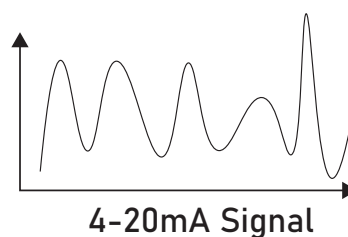
# Analogue Receiver



**RXA15101E**

## FEATURES

- ) One 4-20mA analog output and one digital output
- ) Supply voltage can be AC or DC
- ) Low current consumption
- ) Built-in noise or signal strength indicator
- ) User can select 8 different frequencies
- ) Easy code setup with dipswitch settings



## DESCRIPTION

The 151MHz receivers use dual conversion, narrow band FM which makes it ideal for industrial applications. Built-into the receiver is a noise and signal strength indicator. The user selectable frequency synthesizer allows for easy installation on a frequency that is not in use, allowing optimal performance in the receiving range.

The receiver has a 4-20mA analog signal output and a relay output. The analog and digital signal transmitted from the TXA15101E transmitter is recreated at the receiver.

## TECHNICAL DATA

Supply Voltage	10 - 28 Volts DC. Can use Elsema power pack, 12PP1000
Current Consumption	35mA standby
Operating Frequency	151.600MHz (8 user selectable frequencies)
Output	4-20 mA analog signal and 1 relay output
Antenna	Elsema ANT151S or ANT151M
Dimensions	125 x 80 x 33mm
Compatible Transmitters	Elsema type TXA15101E

# GLT Series. 433MHz Gigalink® Transmitters

## FEATURES

- ) Hand-held transmitter
- ) Available with 1, 2, 4 & 8 channels
- ) Built-in LED indicates button activation
- ) Compatible with all GLR433 series receivers
- ) Over 4 billion code combinations
- ) Domestic, commercial and industrial applications



**GLT43301**



**GLT43302**



**GLT43304**



**GLT43308**

## TECHNICAL DATA

Power Source	9 Volt battery
Current Consumption	35mA during transmission
Operating Frequency	433.920MHz
Dimensions	81 x 56 x 24mm (GLT43308: 130 x 67 x 27mm)
Useable Operating Range	Up to 350 metres
Compatible Receivers	All Elsema type GLR433 series

## ACCESSORY





# GLR Series. 433MHz Gigalink® Receivers

All 433MHz series receives can be purchased in an IP66 enclosure



**GLR43301E (IP66 enclosure)**  
**GLR43301**

<b>Channels</b>	1 relay output
<b>Supply</b>	12-24 Volts AC/DC



**GLR43301240E (IP66 enclosure)**  
**GLR43301240**

<b>Channels</b>	1 relay output
<b>Supply</b>	240 Volts AC



**GLR43302E (IP66 enclosure)**  
**GLR43302**

<b>Channels</b>	2 relay outputs
<b>Supply</b>	12-24 Volts AC/DC



**GLR43302240E (IP66 enclosure)**  
**GLR43302240**

<b>Channels</b>	2 relay outputs
<b>Supply</b>	240 Volts AC



**GLR43304E (IP66 enclosure)**  
**GLR43304**

<b>Channels</b>	4 relay outputs
<b>Supply</b>	12-24 Volts AC/DC



**GLR43304240E (IP66 enclosure)**  
**GLR43304240**

<b>Channels</b>	4 relay outputs
<b>Supply</b>	240 Volts AC

GLT433 SERIES



**GLR43308RE (IP66 enclosure)**  
**GLR43308R**

<b>Channels</b>	8 relay outputs
<b>Supply</b>	12-24 Volts AC/DC



**GLR43308**  
(Open Collector)  
**GLR43308POS**  
(Positive Switching)

<b>Channels</b>	8 outputs
<b>Supply</b>	12-24 Volts AC/DC



**GLR43302SS**  
(Plug-in)

<b>Channels</b>	2 outputs (Open Collector)
<b>Supply</b>	7.5-28 Volts DC only



**GLR43302SST**  
(Terminal)

# MCT Series. 915MHz Transmitters

## FEATURES

- ) Available with 1, 2, or 4 channels
- ) 12-way dipswitch (4096 codes) or Encrypted (over 16 million codes)
- ) Fast frequency-hopping operates across multiple frequencies to provide immunity from interference or jamming



**MCT91501**



**MCT91502**



**MCT91504**

## DESCRIPTION

The transmitters use fast frequency-hopping (FFH) to allow up to eight transmitters to be used in the same area. No interference or jamming will occur.

The FFH technology is usually used in very expensive equipment with military or medical applications. Elsema has developed a world-first low-cost lightweight hand-held FFH transmitter.

## TECHNICAL DATA

Power Source	9 Volt battery
Current Consumption	55mA (typical). Only during transmission
Operating Frequency	915 to 928MHz
Dimensions	96 x 55 x 20mm
Useable Operating Range	Up to 400 metres
Compatible Receivers	All Elsema type MCR915 series

## ACCESSORY



9 VOLT  
DURACELL  
BATTERY  
PART NO:  
6LR61



PROTECTIVE  
SILICONE COVER  
PART NUMBER: SIL04M



## FEATURES

- ) Available with 8, 12, or 16 channels
- ) 12-way dipswitch (4096 codes) or Encrypted (over 16 million codes)
- ) Fast frequency-hopping operates across multiple frequencies to provide immunity from interference or jamming



**MCT91508**



**MCT91512**



**MCT91516**

## TECHNICAL DATA

Power Source	9 Volt battery
Current Consumption	55mA (typical). Only during transmission
Operating Frequency	915 to 928MHz
Dimensions	130 x 67 x 27mm
Useable Operating Range	Up to 400 metres
Compatible Receivers	All Elsema type MCR915 series

## ACCESSORY



9 VOLT  
DURACELL  
BATTERY  
PART NO:  
6LR61



PROTECTIVE  
SILICONE COVER  
PART NUMBER: SIL08



RUBBER BOOT  
PART NO: RUB8

# MCR Series. 915MHz Receivers

All 915MHz series receives can be purchased in an IP66 enclosure



**MCR91501R**

**MCR91501RE (IP66 enclosure)**

Channels	1 relay output
Supply	12-24 Volts AC/DC



**MCR91502R**

**MCR91502RE (IP66 enclosure)**

Channels	2 relay output
Supply	12-24 Volts AC/DC



**MCR91504R**

**MCR91504RE (IP66 enclosure)**

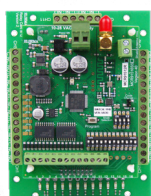
Channels	4 relay outputs
Supply	12-24 Volts AC/DC



**MCR91508R**

**MCR91508RE (IP66 enclosure)**

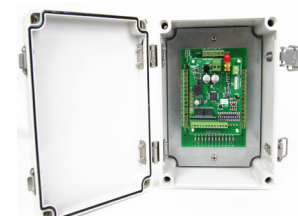
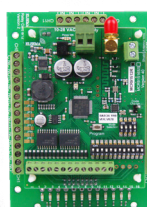
Channels	8 relay outputs
Supply	12-24 Volts AC/DC



**MCR91512R**

**MCR91512RE (IP66 enclosure)**

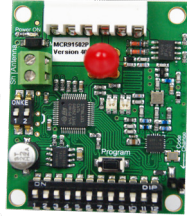
Channels	12 relay outputs
Supply	12-24 Volts AC/DC



**MCR91516R**

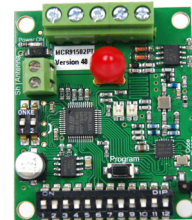
**MCR91516RE (IP66 enclosure)**

Channels	16 relay outputs
Supply	12-24 Volts AC/DC



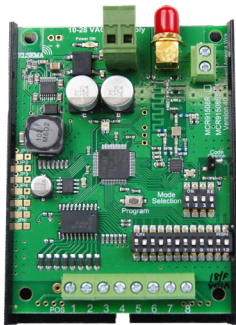
**MCR91502P (Plug-in)**

<b>Channels</b>	2 outputs (Open Collector)
<b>Supply</b>	7-36 Volts DC Only



**MCR91502PT (Terminal block)**

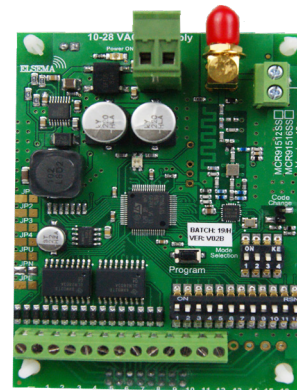
<b>Channels</b>	2 outputs (Open Collector)
<b>Supply</b>	7-36 Volts DC Only



**MCR91508SS**  
(Open Collector)

**MCR91508POS**  
(Positive Switching)

<b>Channels</b>	8 outputs
<b>Supply</b>	12-24 Volts AC/DC



**MCR91516SS**

<b>Channels</b>	16 outputs (Open Collector)
<b>Supply</b>	12-24 Volts AC/DC

# Antennas

**Elsema has a wide selection of antennas manufactured by our RF engineers using the latest technology and test equipment from Rohde & Schwarz. We have our standard antennas on 915MHz, 433MHz and 151MHz that are always in stock. Antennas come on different frequency bands, connectors or coaxial cable.**

To select the correct antenna you will need to match the antenna frequency to the equipment you are using. Most of Elsema's radio equipment is on **915MHz, 433MHz and 151MHz**. For the higher frequencies such as 433MHz and 915MHz it is important that the coaxial cable is low loss and is terminated with a high quality connector.

As a general rule we have used high quality SMA connectors for frequencies above 300MHz. For frequencies below 300MHz the PL259 and the SO239 is used.

Other considerations in selecting the correct antenna is the gain, SWR and coaxial cable.

Antenna gain is often measured with respect to a hypothetical antenna that radiates equally in all directions, an isotropic radiator. The gain is in decibels called dBi. The antenna gain can also be measured in dBd which is equal to dBi – 2.15.

The SWR is a measure of the amount of mismatch between the load (Antenna) and the transmission line's impedance. A SWR of 1 is a perfect match which occurs on a transmission line where there are no reflections. An SWR less than 1.5: 1 is considered good and a SWR greater than 2 : 1 is usually unacceptable. This may indicate a problem with the antenna.





# 4G & 151MHz Antennas

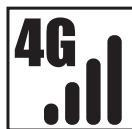


**4G Mini**

**Frequency** 700 to 2700MHz

**Length** 16 cm

**Connection** SMA



**ANT4GMag**  
*Magnetic Base*

**Frequency** 700 to 2700MHz

**Length** Whip: 22 cm, Cable 3m

**Connection** SMA

## 151MHz



**151S**

**Frequency** 149.5 to 152.5MHz

**Length** 21 cm

**Connection** PL259

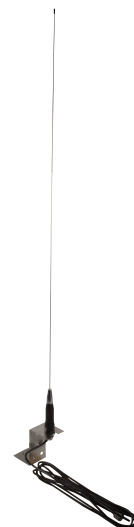


**ANT151S**

**Frequency** 149.5 to 152.5MHz

**Length** Whip: 21 cm, Cable 3.6m

**Connection** PL259



**ANT151M**

**Frequency** 148 to 153MHz

**Length** Whip: 1m, Cable 3.6m

**Connection** PL259

### CABLE EXTENSIONS

- ) AB3.6PL, coaxial is 3.6 metres
- ) AB5.0PL, coaxial is 5.0 metres
- ) AB10PL, coaxial is 10 metres



# 433MHz Antennas



**433Micro**

Frequency	433 to 435MHz
Length	45 mm
Connection	SMA



**433Mini**

Frequency	430 to 440MHz
Length	18 cm
Connection	SMA



**ANT433LP**

Frequency	430 to 440MHz
Length	Whip:40mm, Cable 3.6m
Connection	SMA



**ANT433M**

Frequency	428 to 437MHz
Length	Whip:1m, Cable 3.6m
Connection	SMA



**ANT433S**

Frequency	425.00 to 442.50MHz
Length	Whip:38 cm, Cable 3.6m
Connection	SMA

## CABLE EXTENSIONS

- ) AB1.5SMA, coaxial is 1.5 metres
- ) AB5.0SMA, coaxial is 5.0 metres
- ) AB10SMA, coaxial is 10 metres

# 915MHz Antennas



**915Mini**

Frequency	895 to 930MHz
Length	20 cm
Connection	SMA



**915S-N**

Frequency	875 to 950MHz
Length	18 cm
Connection	N-Type connector



**ANT915LP**

Frequency	860 to 960MHz
Length	Whip: 40 mm, Cable 3.6m
Connection	SMA



**ANT915MAG**  
*Magnetic Base*

Frequency	860 to 960MHz
Length	Whip: 30 cm, Cable 3m
Connection	SMA



**ANT915M**

Frequency	870 to 950MHz
Length	Whip: 65 cm, Cable 3.6m
Connection	SMA



**ANT915S**

Frequency	870 to 940MHz
Length	Whip: 19 cm, Cable 3.6m
Connection	SMA

## CABLE EXTENSIONS

- ) AB1.5SMA, coaxial is 1.5 metres
- ) AB5.0SMA, coaxial is 5.0 metres
- ) AB10SMA, coaxial is 10 metres

# Batteries



6 Volt 4LR44



CR2032



9 Volt Alkaline Battery



A23



12 Volt 1.2Ah Rechargeable  
**LAB12-1.2**



12 Volt 2.3Ah Rechargeable  
**LAB12-2.3**

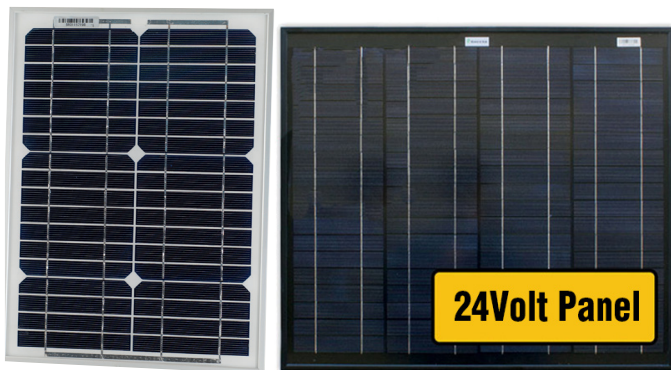


12 Volt 7.0Ah Rechargeable  
**LAB12-7.0**



12 Volt 15Ah Deep Cycle  
**LAB12-15**

# Solar Panels & Battery Chargers



## DESCRIPTION

Elsema's SP series of solar panels provides you with an eco-friendly solution to supply power. Typical applications include:

- ) Automatic gates and doors
- ) Water pumping
- ) Wireless telemetry
- ) Lighting and signage
- ) Transmitter or receiver stand-alone systems

## TECHNICAL DATA

### 24V Panel

Model	SP5	SP10	SP20	SP40	SP40-24	SP60
Rated Power (Watts)	5 Watts	10 Watts	20 Watts	40 Watts	40 Watts	60 Watts
$V_{mp}$ (Volts)	17.8V	17.8V	17.8V	17.8V	35.5V	17.8V
$I_{mp}$ (Amps)	0.28 A	0.56 A	1.12 A	2.25 A	1.13 A	3.37 A
$V_{oc}$ (Volts)	22.3 V	22.3 V	22.3 V	22.3 V	43.1 V	22.3 V
$I_{sc}$ (Amps)	0.30 A	0.61 A	1.21 A	2.43 A	1.85 A	3.64 A
Dimension (mm)	250 x 185 x 15	415 x 185 x 18	470 x 345 x 25	550 x 505 x 25	670 x 570 x 35	770 x 505 x 30
Weight (kg)	0.5	1.0	2.0	3.5	4.6	5.0

## BATTERY CHARGERS

### 10.0 AMPS SOLAR CHARGER WITH MPPT AND BLUETOOTH

PART NO : MPPT 75/10



### 1.2 AMPS CHARGER WITH LED INDICATION

PART NO	BACH12-1200	BACH24-1200
Supply Voltage	12 Volts	24 Volts
Charging Current	1.2 Amps	1.2 Amps

### BATTERY CHARGER WITH REGULATED SUPPLY

PART NO	SUPREG12	SUPREG24
Supply Voltage	12 Volts	24 Volts
Charging Current	0.8 Amps	0.8 Amps
Regulated Output	5 Amps	5 Amps

# Flashing Lights

## DESCRIPTION

Flashing lights (also known as warning lights or strobe lights) can be used in a variety of applications such as warning lights to indicate danger. Elsema has different color lights to suite your application. It can be used on trucks, carts, forklifts, automatic gates & doors or any other application which requires a visual indication of any danger or warning.

### E80 SERIES



### E80L SERIES

90° Wall Mount Type



PART NO	E80-A	E80-R	E80-B	E80-G
Colour	Amber	Red	Blue	Green
Supply Voltage	12-24VDC			

E80L-A	E80L-R	E80L-B	E80L-G
Amber	Red	Blue	Green
12-24VDC			

### ST SERIES



PART NO	ST12A	ST12R	ST12B
Colour	Amber	Red	Blue
Supply Voltage	12 Volts DC		

ST24A	ST24R	ST24B
Amber	Red	Blue
24 Volts DC		



# Auxiliary Relay Cards

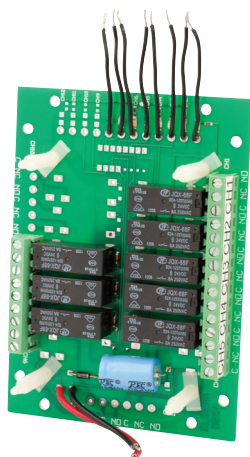
## FEATURES

- ) Relay rated up to 16 Amps 240 VAC
- ) Normally open and normally closed contacts
- ) Relay coil protected for spike-free operation
- ) On-board LED to indicate relay “on”
- ) Available with plug-in terminal blocks for easy installation
- ) Optional QM100 or QM150 bracket to mount up to 4 relay modules together

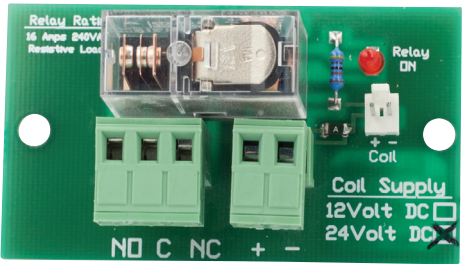
## DESCRIPTION

When you have to switch large loads with open collector outputs or small relays then the auxiliary relay modules can be used. The relay module will isolate and protect your electronic circuits.

The relay modules use an industrial grade relay which conforms to several safety standards, UL, C-UL and VDE.



PART NO	RELAY8-12
Contact Rating	10 Amps 240VAC
Supply Voltage	11 – 14VDC



PART NO	RELAY1-12
Contact Rating	16 Amps 250VAC
Supply Voltage	11 – 14VDC

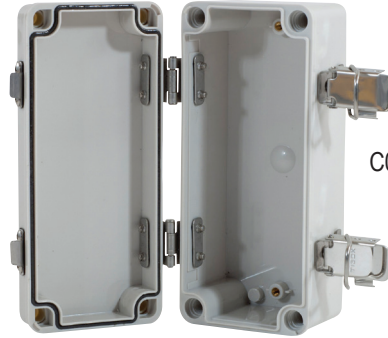
# Plastic Cases

## DESCRIPTION

Cases are all to EN60529 standard with Ingress Protection of IP66. Suitable for temperature range -40 to +80 degrees.



C0611 – Size 65 x 115 x 40 mm



C0818 – Size 80 x 180 x 70 mm



C1015 – Size 100 x 150 x 70 mm



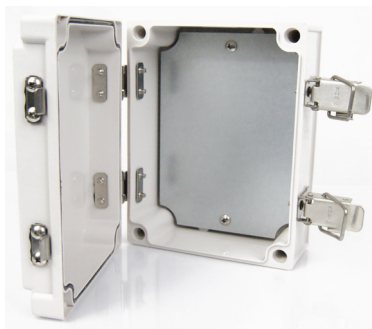
C1015T – Size 100 x 150 x 70 mm  
Metal Latch and Transparent Cover



C1020 – Size 100 x 200 x 70 mm



C1020T – Size 100 x 200 x 70 mm  
Plastic Latch and Transparent Cover



C1217 – Size 125 x 175 x 75 mm



C1515 – Size 150 x 150 x 90 mm



C1515T – Size 150 x 150 x 90 mm  
Plastic Latch and Transparent Cover



C1520 – Size 150 x 200 x 100 mm



C1717 – Size 175 x 175 x 75 mm

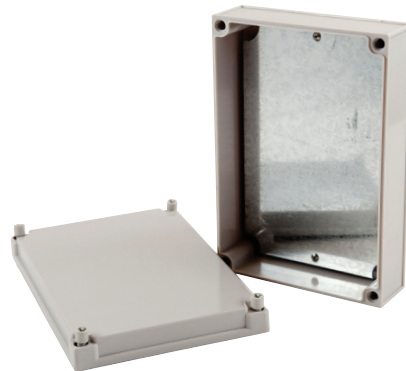
# Plastic Cases



C1722 – Size 170 x 220 x 110 mm



C1722T – Size 170 x 220 x 110 mm  
Plastic Latch and Transparent Cover



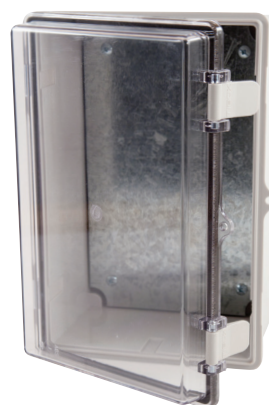
C1725 – Size 175 x 250 x 75 mm



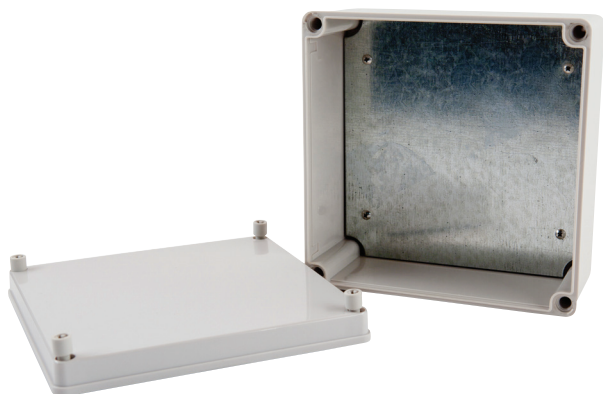
C1725-1 – Size 175 x 250 x 100 mm



C1929 – Size 190 x 290 x 140 mm



C1929T – Size 190 x 290 x 140 mm  
Plastic Latch and Transparent Cover



C2020-S – Size 200 x 200 x 75 mm



C2828 – Size 280 x 280 x 130 mm



C3428 – Size 340 x 280 x 130 mm






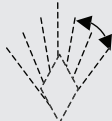

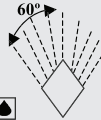

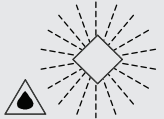

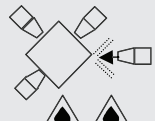
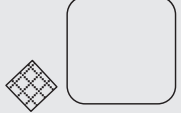

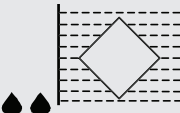
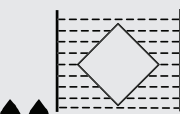
C3428T – Size 340 x 280 x 130 mm  
Transparent Cover

# International Protection (IP) Ratings

IP54 = IP Letter Code \_\_\_\_\_ IP

1st Digit \_\_\_\_\_ 5

2nd Digit \_\_\_\_\_ 4

1 <sup>st</sup> Digit	Protection from solid objects		2 <sup>nd</sup> Digit	Protection from moisture	
0	NON-PROTECTED		0	NON-PROTECTED	
1		Protected against solid objects greater than 50mm	1		Protected against dripping water
2		Protected against solid objects greater than 12mm	2		Protected against dripping water when tilted up to 15°
3		Protected against solid objects greater than 2.5mm Ø	3		Protected against spraying water
4		Protected against solid objects greater than 1.0mm Ø	4		Protected against splashing water
5		Dust protected	5		Protected against water jets
6		Dust tight	6		Protected against heavy seas
			7		Protected against the effects of immersion between 15cm and 1m
			8		Protected against long periods of immersion under pressure

## Notes





## 4G GSM Controllers



## Sliding Gate Motor Kits



## Swing Gate Motor Kits



## Wireless Communications

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