AUTOMATIC GATE KITS & ACCESSORIES
SECURING GATES SINCE 1978

2017 / 2018
Gate & Door Controls Catalogue
Gate and Door Technology

Since 1978 we have been in research and development of automatic sliding gates, swing gates and industrial roller doors. We are passionate about our work and products supplying innovative solutions to the gate and door automation industry.

The complete production cycle is done by Elsema – from concept, design, testing, assembly, packaging to final quality checks.

Our team strives to put customer service first and use intelligent solutions for our products. We are here for our customers, real people answer the phones and we have specialised engineers who give technical support.

3 Year Warranty

Elsema’s 3 year warranty is a clear statement to its customers that the highest possible standard has been used in sourcing components, manufacturing and design of its products. The 3 year warranty applies to products designed and manufactured by Elsema and which are detailed in this catalogue.

Our exclusive lifetime support on components and technical advice guarantees that we are there to service the product long after the sale. The lifetime support on components is for 12 years after the purchase date.

For detailed information visit www.elsema.com/auto
PRODUCT SPOTLIGHT

- Sliding gate motor kits (Page 6)
- Articulated arm swing gate motor kit (Page 12)
- Motor control cards (Page 28)
- Keyring remote controls

All our motor kits use Eclipse® Operating System
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For detailed information visit [www.elsema.com/automatic-gates](http://www.elsema.com/automatic-gates)
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Selection Guide

Gate Controller Selection Guide

Start

Do you require solar gate controller?

Yes

Do you have Double or Single motors?

Double

What is the Motor Voltage rating?

12V & 24V → MC Page 28

240V 1-PHASE → MC240 Page 32

240V 3-PHASE → MCI-VSD Page 34

No

Single / Double, 12V & 24V

Single

What is the Motor Voltage rating?

12V & 24V → MC Page 28

240V 1-PHASE → MC240

240V 3-PHASE → MCI-VSD

240V 1-PHASE → MC240

240S1

240S2

240S3E

240S4E

240V 3-PHASE → MCI-VSD

415V

415S1E Page 42

Solar24 Solar12 Page 36

Do you require solar gate controller? No

Double / Single

What is the Motor Voltage rating?

12V & 24V → MC Page 28

240V 1-PHASE → MC240 Page 32

240V 3-PHASE → MCI-VSD Page 34

Solar24 Solar12 Page 36

For detailed information visit www.elsema.com/automatic-gates
# Quick Selection Guide

## Swing Gate Motor

<table>
<thead>
<tr>
<th>Domestic</th>
<th>Domestic / Commercial</th>
<th>Industrial</th>
<th>Gated</th>
<th>Part Number</th>
<th>Input Supply</th>
<th>Motor Voltage</th>
<th>Soft Start/Stop</th>
<th>Maximum Gate Size/Weight</th>
<th>Motor Type</th>
<th>Solar/Battery Backup Option</th>
<th>Day &amp; Night Sensor</th>
</tr>
</thead>
<tbody>
<tr>
<td>iS270</td>
<td></td>
<td>iS300</td>
<td></td>
<td></td>
<td>240 Volts AC</td>
<td>24 Volts DC</td>
<td></td>
<td>2.5 metres / 250Kg</td>
<td>Articulated Arm</td>
<td>Single panel and single battery</td>
<td></td>
</tr>
<tr>
<td>iS250</td>
<td></td>
<td>iS320</td>
<td></td>
<td></td>
<td>240 Volts AC</td>
<td>24 Volts DC</td>
<td></td>
<td>4 metres / 250Kg</td>
<td>Worm Drive</td>
<td>Single panel and single battery</td>
<td></td>
</tr>
<tr>
<td>Domestic</td>
<td></td>
<td>iS330</td>
<td></td>
<td></td>
<td>240 Volts AC</td>
<td>24 Volts DC</td>
<td></td>
<td>4 metres / 300Kg</td>
<td>Worm Drive</td>
<td>Single panel and single battery</td>
<td>User Adjustable</td>
</tr>
</tbody>
</table>

### Notes
- User Adjustable: 4 metres / 250Kg, 4 metres / 300Kg, 4 metres / 600Kg, 2 metres / 800Kg, 2 metres / 800Kg, 3 metres / 300Kg, 3 metres / 400Kg.
- Hydraulic: Yes, Yes, No, No.
- Day & Night: Yes, Yes, Yes, Yes.

---

**Powered by**

Eclipse Operating System

**Gated by**

Gate and Door Technology since 1978

**www.elsema.com**
For detailed information visit www.elsema.com/automatic-gates

**AXIOM SERIES**

**SLIDING GATE OPENER**

- Cost effective solution for domestic sliding gate
- Self learning using intelligent positioning technology
- High capacity Lithium-ion battery backup optional
- Easy installation with Eclipse® control card
- All metal gearbox for longer life
- Suitable for gates up to 600Kg on level ground
- Contactless limit switch
- Soft start and soft stop
- Designed by Elsema in Australia

**TECHNICAL DATA**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power supply</td>
<td>240 Volts AC</td>
</tr>
<tr>
<td>Motor voltage</td>
<td>24 Volts DC</td>
</tr>
<tr>
<td>Max gate weight</td>
<td>600Kg on level ground</td>
</tr>
<tr>
<td>Max absorbed power</td>
<td>80 Watts</td>
</tr>
<tr>
<td>Nominal thrust</td>
<td>220N</td>
</tr>
<tr>
<td>Nominal input current</td>
<td>2 Amps</td>
</tr>
<tr>
<td>Motor speed</td>
<td>15 metres per minute</td>
</tr>
<tr>
<td>Duty cycle</td>
<td>60% over 12 min</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>-20°C - +50°C</td>
</tr>
</tbody>
</table>
Kit contents

iS600 sliding gate motor

3 x Keyring remotes with frequency hopping

Long range reflector type photo electric beam

4 x Steel reinforced Nylon Gear Racks GR-4

Control card with Eclipse® Operating System

Ordering Code

<table>
<thead>
<tr>
<th>PART NUMBERS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>iS600</td>
<td>Standard iS600 Kit</td>
</tr>
<tr>
<td>iS600B</td>
<td>iS600 Kit with Li-ion Backup battery pack</td>
</tr>
<tr>
<td>iS600Solar</td>
<td>iS600 Kit with Solar charger and Backup battery pack</td>
</tr>
</tbody>
</table>

Optional Accessories

**PentaCODE® Keypad**
Wireless keypad compatible with Pentacode receivers

**GSM Gate Opener**
Open your gate with your mobile phone for free!

**Magnetic Lock**
- 12 or 24 Volts DC
- Waterproof
- 270Kg or 650Kg

**PentaFOB® Programmer**
Add, edit or delete or backup individual PentaFOB® remotes

**Vehicle Detector**
- 12, 24 or 240 Volts
- 1 or 2 loops
- Medium or high sensitivity

**Flashing Lights**
- 12 or 24 Volts DC
- Red, Blue & Amber
- 90 Flashes \ min
### TECHNICAL DATA

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power supply</td>
<td>240 Volts AC</td>
</tr>
<tr>
<td>Motor voltage</td>
<td>24 Volts DC</td>
</tr>
<tr>
<td>Max gate weight</td>
<td>900kg on level ground</td>
</tr>
<tr>
<td>Max absorbed power</td>
<td>120 Watts</td>
</tr>
<tr>
<td>Nominal thrust</td>
<td>330N</td>
</tr>
<tr>
<td>Nominal input current</td>
<td>2 Amps</td>
</tr>
<tr>
<td>Motor speed</td>
<td>15 metres per minute</td>
</tr>
<tr>
<td>Duty cycle</td>
<td>60% over 12 min</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>-20°C - +50°C</td>
</tr>
</tbody>
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Kit contents

- **iS900 sliding gate motor**
- **3 x Keyring remotes with frequency hopping**
- **Long range reflector type photo electric beam**
- **4 x Steel reinforced Nylon Gear Racks GR-4**
- **Control card with Eclipse® Operating System**

Ordering Code

<table>
<thead>
<tr>
<th>PART NUMBERS</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>iS900</td>
<td>Standard iS900 Kit</td>
</tr>
<tr>
<td>iS900B</td>
<td>iS900 Kit with Li-ion Backup battery pack</td>
</tr>
<tr>
<td>iS900Solar</td>
<td>iS900 Kit with Solar charger and Backup battery pack</td>
</tr>
</tbody>
</table>

Optional Accessories

- **PentaCODE® Keypad**
  - Wireless keypad compatible with Pentacode receivers

- **GSM Gate Opener**
  - Open your gate with your mobile phone for free!

- **Magnetic Lock**
  - 12 or 24 Volts DC
  - Waterproof
  - 270Kg or 650Kg

- **PentaFOB® Programmer**
  - Add, edit or delete or backup individual PentaFOB® remotes

- **Vehicle Detector**
  - 12, 24 or 240 Volts
  - 1 or 2 loops
  - Medium or high sensitivity

- **Flashing Lights**
  - 12 or 24 Volts DC
  - Red, Blue & Amber
  - 90 flashes / min
**SLIDING GATE OPENERS**

- High speed operator, faster than 20 metres per minute
- All metal gearbox for longer life
- Easy installation with Eclipse® control card
- Designed and made in Australia
- Battery backup (Optional)
- Soft start and soft stop
- Easy installation

Vandal proof antenna for optimum operating range and 3 x PentaFOB® included in the kit.

---

**TECHNICAL DATA**

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<th>iS1200LV</th>
<th>iS1200</th>
<th>iS2000</th>
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</thead>
<tbody>
<tr>
<td>Power supply</td>
<td>240 Volts AC</td>
<td>240 Volts AC</td>
<td>240 Volts AC</td>
</tr>
<tr>
<td>Motor voltage</td>
<td>24 Volts DC</td>
<td>240 Volts 3 Phase</td>
<td>240 Volts 3 Phase</td>
</tr>
<tr>
<td>Max gate weight</td>
<td>800kg on level ground</td>
<td>1,000kg on level ground</td>
<td>2,000kg on level ground</td>
</tr>
<tr>
<td>Max absorbed power</td>
<td>120 Watts</td>
<td>250 Watts</td>
<td>750 Watts</td>
</tr>
<tr>
<td>Nominal input current</td>
<td>3 Amps</td>
<td>3 Amps</td>
<td>10 Amps</td>
</tr>
<tr>
<td>Motor speed</td>
<td>22 metres per minute</td>
<td>27 metres per minute</td>
<td>38 metres per minute</td>
</tr>
<tr>
<td>Duty cycle</td>
<td>60%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Backup battery</td>
<td>2 x 2.6Ah Battery</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>-20°C - +50°C</td>
<td>-20°C - +50°C</td>
<td>-20°C - +50°C</td>
</tr>
</tbody>
</table>

For detailed information visit [www.elsema.com/automatic-gates](http://www.elsema.com/automatic-gates)
Dimensions

\[ \text{iS1200LV/iS1200} \]

![iS1200LV/iS1200 Dimensions](image)

\[ \text{iS2000} \]

![iS2000 Dimensions](image)

Accessories (Sold separately)

- Pre-made vehicle detection loops. Direct burial or saw cut
- Long range reflector type photo electric beam
- Safety Bump Strip
- Nylon Gear Racks GR-4

Optional Accessories

- **PentaCODE® Keypad**
  Wireless keypad compatible with Penta receivers

- **GSM Gate Opener**
  Open your gate with your mobile phone for free!

- **Magnetic Lock**
  - 12 or 24 Volts DC
  - Waterproof
  - 270Kg or 650Kg

- **PentaFOB® Programmer**
  Add, edit or delete or backup individual PentaFOB® remotes

- **Vehicle Detector**
  - 12, 24 or 240 Volts
  - 1 or 2 loops
  - Medium or high sensitivity

- **Flashing Lights**
  - 12 or 24 Volts DC
  - Red, Blue & Amber
  - 90 Flashes \ min
iS270 Kit
Articulated arm gate operator

SWING GATE OPENERS

TECHNICAL DATA

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
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<td>Power supply</td>
<td>240 Volts AC</td>
</tr>
<tr>
<td>Motor voltage</td>
<td>24 Volts DC</td>
</tr>
<tr>
<td>Max gate weight</td>
<td>250kg</td>
</tr>
<tr>
<td>Peak thrust</td>
<td>2500N</td>
</tr>
<tr>
<td>Nominal input current</td>
<td>4.2 Amps</td>
</tr>
<tr>
<td>Duty cycle</td>
<td>20%</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>-20°C - +50°C</td>
</tr>
</tbody>
</table>

Uses Elsema’s MC card with Eclipse® operating system
Cost effective solution for automation of swing gates
Wide range of positional adjustment
Easily adjustable limit switches
Battery backup (iS270 E1.2)
Waterproof cover design
Soft start and soft stop
Easy installation

For detailed information visit www.elsema.com/automatic-gates
Optional Accessories

**PentaCODE® Keypad**
Wireless keypad compatible with Penta receivers

**GSM Gate Opener**
Open your gate with your mobile phone for free!

**PentaFOB® Programmer**
Add, edit or delete or backup individual PentaFOB® remotes

**Vehicle Detector**
- 12, 24 or 240 Volts
- 1 or 2 loops
- Medium or high sensitivity

**Locking Actuator**
- 12 Volts DC
- 50mm Stroke
- 20mm Stainless Steel Pin

**Flashing Lights**
- 12 or 24 Volts DC
- Red, Blue & Amber
- 90 Flashes / min

---

**Kit contents**

- Built-in Eclipse® control card
- iS270D dual swing motors
- 3 x Keyring remotes with frequency hopping
- Long range reflector type photo electric beam

---

**Dimensions**

- Kit contents
- Dimensions: 250mm x 256.2mm

**Ordering Code**

<table>
<thead>
<tr>
<th>PART NUMBERS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>iS270D</td>
<td>Dual swing motor kit</td>
</tr>
<tr>
<td>iS270</td>
<td>Single swing motor kit</td>
</tr>
<tr>
<td>E1.2</td>
<td>*Optional battery backup kit</td>
</tr>
</tbody>
</table>

---

**Typical installation**

1. Intelligent control box
2. iS270 motor
3. PE1500 photo electric beam
4. Reflector for PE1500
5. Vehicle detector
6. Wireless Keypad
iS270 Solar Kit
24 Volt motor, Suitable for gates up to 2.5 metres and 250Kg

SOLAR SWING GATE OPENERS

- Uses Elsema’s MC card with Eclipse® operating system
- Cost effective solution for automation of swing gates
- Self learning using intelligent positioning technology
- Intelligent Voltage doubler using only one solar panel and one 12 Volt battery for 24 Volt motor operation
- Adjustable limit switches
- Waterproof cover design
- Soft start and soft stop
- Easy installation

TECHNICAL DATA

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
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<tbody>
<tr>
<td>Power supply</td>
<td>240 Volts AC</td>
</tr>
<tr>
<td>Motor voltage</td>
<td>24 Volts DC</td>
</tr>
<tr>
<td>Max gate weight</td>
<td>250kg</td>
</tr>
<tr>
<td>Peak thrust</td>
<td>2500N</td>
</tr>
<tr>
<td>Nominal input current</td>
<td>4.2 Amps</td>
</tr>
<tr>
<td>Duty cycle</td>
<td>20%</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>-20°C - +50°C</td>
</tr>
</tbody>
</table>
Typical installation

1 Solar Panel
2 Intelligent control box
3 iS270 motor
4 PE1500 photo electric beam
5 Reflector for PE1500
6 Vehicle detector

Kit contents

Control box with intelligent voltage doubler
iS270D dual swing motors
3 x Keyring remotes with frequency hopping
Long range reflector type photo electric beam

Dimensions

255.2mm
250mm
190mm
Easily adjustable limits

Ordering Code

<table>
<thead>
<tr>
<th>PART NUMBERS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>iS270DSolar*</td>
<td>Dual swing motor kit</td>
</tr>
<tr>
<td>iS270Solar*</td>
<td>Single swing motor kit</td>
</tr>
</tbody>
</table>

*Solar panels sold separately

Optional Accessories

Solar Panels
20, 40 & 60 Watt Solar Panels
- High efficiency monocrystalline silicon solar cells.
- Improved low light performance
- High transparency 3.2mm low iron glass
- Anodized aluminum alloy frame
iS250 Kit
24 Volt motor, Suitable for gates up to 3 metres and 300Kg

SWING GATE OPENERS

- Cost effective solution for automation of swing gates
- Uses Elsema’s MC card with Eclipse® operating system
- Die-cast Aluminium motor cover for great durability.
- Mechanical stopper built in the motor for added protection. No stoppers required on your driveway.
- Battery backup (iS250 E7)
- Waterproof cover design
- Soft start and soft stop
- Easy installation

TECHNICAL DATA

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power supply</td>
<td>240 Volts AC</td>
</tr>
<tr>
<td>Motor voltage</td>
<td>24 Volts DC</td>
</tr>
<tr>
<td>Max gate weight</td>
<td>300kg</td>
</tr>
<tr>
<td>Max gate length</td>
<td>3 metres</td>
</tr>
<tr>
<td>Peak thrust</td>
<td>3000N</td>
</tr>
<tr>
<td>Operation stroke</td>
<td>500mm</td>
</tr>
<tr>
<td>Typical gate opening time</td>
<td>15-20sec</td>
</tr>
<tr>
<td>Duty cycle</td>
<td>20%</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>-20°C to 50°C</td>
</tr>
</tbody>
</table>
Typical installation

1. Intelligent control box
2. iS250 motor
3. PE1500 photo electric beam
4. Reflector for PE1500
5. Vehicle detector
6. Wireless Keypad

Kit contents

- Intelligent control box with built-in receiver
- iS250 dual swing motors with built-in stopper
- 3 x Keyring remotes with frequency hopping
- Long range reflector type photo electric beam

Dimensions

Ordering Code

<table>
<thead>
<tr>
<th>PART NUMBERS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>iS250D</td>
<td>Dual swing motor kit</td>
</tr>
<tr>
<td>iS250</td>
<td>Single swing motor kit</td>
</tr>
<tr>
<td>E7</td>
<td>*Optional battery backup kit</td>
</tr>
</tbody>
</table>

*Please specify battery backup option when ordering

Optional Accessories

- **PentaCODE® Keypad**
  Wireless keypad compatible with Pentacode receivers

- **GSM Gate Opener**
  Open your gate with your mobile phone for free!

- **Backup Batteries**
  24 Volt, 7Ah rechargeable lead acid battery

- **Vehicle Detector**
  - 12, 24 or 240 Volts
  - 1 or 2 loops
  - Medium or high sensitivity

- **Locking Actuator**
  - 12 Volts DC
  - 50mm Stroke
  - 20mm Stainless Steel Pin

- **Flashing Lights**
  - 12 or 24 Volts DC
  - Red, Blue & Amber
  - 90 Flashes / min
iS250 Solar Kit

24 Volt motor, Suitable for gates up to 3 metres and 300Kg

SOLAR SWING GATE OPENERS

- Cost effective solution for automation of swing gates
- Intelligent Voltage doubler using only one solar panel and one 12 Volt battery for 24 Volt motor operation
- Uses Elsema’s MC card with Eclipse® operating system
- Mechanical stopper built in the motor for added protection. No stoppers required on your driveway.
- Waterproof cover design
- Soft start and soft stop
- Easy installation

TECHNICAL DATA

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor voltage</td>
<td>24 Volts DC</td>
</tr>
<tr>
<td>Max gate weight</td>
<td>300kg</td>
</tr>
<tr>
<td>Max gate length</td>
<td>3 metres</td>
</tr>
<tr>
<td>Peak thrust</td>
<td>3000N</td>
</tr>
<tr>
<td>Operation stroke</td>
<td>500mm</td>
</tr>
<tr>
<td>Typical gate opening time</td>
<td>15-20sec</td>
</tr>
<tr>
<td>Duty cycle</td>
<td>20%</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>-20°C~50°C</td>
</tr>
</tbody>
</table>

For detailed information visit www.elsema.com/automatic-gates
**Typical installation**

![Diagram showing typical installation of gate and solar panel system]

**Kit contents**

- Control box with intelligent voltage doubler
- iS250 dual swing motors with built-in stopper
- 3 x Keyring remotes with frequency hopping
- Long range reflector type photo electric beam

**Dimensions**

![Graph showing max weight of leaf versus max length of leaf]

**Ordering Code**

<table>
<thead>
<tr>
<th>PART NUMBERS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>iS250DSolar*</td>
<td>Dual swing motor kit</td>
</tr>
<tr>
<td>iS250Solar*</td>
<td>Single swing motor kit</td>
</tr>
</tbody>
</table>

*Solar panels sold separately

**Optional Accessories**

**Solar Panels**
- 20, 40 & 60 Watt Solar Panels
  - High efficiency monocrystalline silicon solar cells.
  - Improved low light performance
  - High transparency 3.2mm low iron glass
  - Anodized aluminum alloy frame
**iS300 Kit**

24 Volt motor, Suitable for gates up to 3 metres and 300Kg

**SWING GATE OPENERS**

- Uses Elsema’s MC card with Eclipse® operating system
- Ultra quite operation yet powerful
- Die-cast Aluminium motor cover for great durability.
- Mechanical stopper built in the motor for added protection. No stoppers required on your driveway.
- Battery backup (iS300D E7)
- Waterproof cover design
- Soft start and soft stop
- Easy installation

**Die-cast aluminum cover. Maximum protection against environment**

**Strong and reliable worm shaft with Ø 18mm spherical section**

**Easy manual release located on the top side of the motor**

---

**TECHNICAL DATA**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power supply</td>
<td>240 Volts AC</td>
</tr>
<tr>
<td>Motor voltage</td>
<td>24 Volts DC</td>
</tr>
<tr>
<td>Max gate weight</td>
<td>300kg</td>
</tr>
<tr>
<td>Max gate length</td>
<td>3 metres</td>
</tr>
<tr>
<td>Peak thrust</td>
<td>3000N</td>
</tr>
<tr>
<td>Operation stroke</td>
<td>350mm</td>
</tr>
<tr>
<td>Typical gate opening time</td>
<td>10-15sec</td>
</tr>
<tr>
<td>Duty cycle</td>
<td>20%</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>-20°C~50°C</td>
</tr>
</tbody>
</table>

For detailed information visit [www.elsema.com/automatic-gates](http://www.elsema.com/automatic-gates)
**Typical installation**

1. Intelligent control box
2. iS300 motor
3. PE1500 photo electric beam
4. Reflector for PE1500
5. Vehicle detector

**Kit contents**

- Intelligent control box with built-in receiver
- iS300 dual swing motors with built-in stopper
- 3 x Keyring remotes with frequency hopping
- Long range reflector type photo electric beam

**Dimensions**

- [Diagram of dimensions]

**Ordering Code**

<table>
<thead>
<tr>
<th>PART NUMBERS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>IS300D</td>
<td>Dual swing motor kit</td>
</tr>
<tr>
<td>iS300</td>
<td>Single swing motor kit</td>
</tr>
<tr>
<td>E7</td>
<td><em>Optional battery backup kit</em></td>
</tr>
</tbody>
</table>

*Please specify battery backup option when ordering*

**Optional Accessories**

- **PentaCODE® Keypad**: Wireless keypad compatible with Pentacode receivers
- **GSM Gate Opener**: Open your gate with your mobile phone for free!
- **Locking Actuator**: 12 Volts DC, 50mm Stroke, 20mm Stainless Steel Pin
- **Backup Batteries**: 24 Volt, 7Ah rechargeable lead acid battery
- **Vehicle Detector**: 12, 24 or 240 Volts, 1 or 2 loops, Medium or high sensitivity
- **Flashing Lights**: 12 or 24 Volts DC, Red, Blue & Amber, 90 Flashes \ min
SOLAR SWING GATE OPENERS

- Intelligent Voltage doubler using only one solar panel and one 12 Volt battery for 24 Volt motor operation
- Ultra quiet operation yet powerful
- Die-cast Aluminium motor cover for great durability.
- Mechanical stopper built in the motor for added protection. No stoppers required on your driveway.
- Waterproof cover design
- Soft start and soft stop
- Easy installation

**TECHNICAL DATA**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor voltage</td>
<td>24 Volts DC</td>
</tr>
<tr>
<td>Max gate weight</td>
<td>300kg</td>
</tr>
<tr>
<td>Max gate length</td>
<td>3 metres</td>
</tr>
<tr>
<td>Peak thrust</td>
<td>3000N</td>
</tr>
<tr>
<td>Operation stroke</td>
<td>350mm</td>
</tr>
<tr>
<td>Typical gate opening time</td>
<td>10-15sec</td>
</tr>
<tr>
<td>Duty cycle</td>
<td>20%</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>-20°C~50°C</td>
</tr>
</tbody>
</table>

For detailed information visit www.elsema.com/automatic-gates
Typical installation

Kit contents

Control box with intelligent voltage doubler
iS300 dual swing motors with built-in stopper

3 x Keyring remotes with frequency hopping
Long range reflector type photo electric beam

Dimensions

Ordering Code

<table>
<thead>
<tr>
<th>PART NUMBERS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>iS300DSolar*</td>
<td>Dual swing motor kit</td>
</tr>
<tr>
<td>iS300Solar*</td>
<td>Single swing motor kit</td>
</tr>
</tbody>
</table>

*Solar panels sold separately

Optional Accessories

Solar Panels
20, 40 & 60 Watt Solar Panels

- High efficiency monocrystalline silicon solar cells.
- Improved low light performance
- High transparency 3.2mm low iron glass
- Anodized aluminum alloy frame
iS320 Kit

240 Volt motor, Suitable for gates up to 4 metres and 600Kg

SWING GATE OPENERS

- Uses Elsema’s MC240 card with Eclipse® operating system
- Powerful hydraulic motors
- Die-cast Aluminium motor cover for great durability
- Mechanical stopper built in the motor for added protection
- Anti-crash & anti-wind adjustment
- Waterproof cover design
- Soft start and soft stop
- Easy installation

IDEAL SOLUTION FOR DOMESTIC AND LIGHT INDUSTRIAL GATES

TECHNICAL DATA

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power supply</td>
<td>240 Volts AC</td>
</tr>
<tr>
<td>Motor voltage</td>
<td>240 Volts AC</td>
</tr>
<tr>
<td>Max gate weight</td>
<td>600kg</td>
</tr>
<tr>
<td>Max gate length</td>
<td>4 metres</td>
</tr>
<tr>
<td>Max pressure</td>
<td>50bar</td>
</tr>
<tr>
<td>Opening cycle</td>
<td>23sec</td>
</tr>
<tr>
<td>Closing cycle</td>
<td>28sec</td>
</tr>
<tr>
<td>Compression</td>
<td>795Kg</td>
</tr>
<tr>
<td>Traction</td>
<td>638Kg</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>-20°C~50°C</td>
</tr>
</tbody>
</table>

For detailed information visit www.elsema.com/automatic-gates
Typical installation

Kit contents

- Intelligent control box with Eclipse operating system
- iS320 dual swing hydraulic motors
- 3 x Keyring remotes with frequency hopping
- Long range reflector type photo electric beam

Dimensions

Ordering Code

<table>
<thead>
<tr>
<th>PART NUMBERS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>iS320D</td>
<td>Dual swing motor kit</td>
</tr>
<tr>
<td>iS320</td>
<td>Single swing motor kit</td>
</tr>
</tbody>
</table>

Optional Accessories

- **PentaCODE® Keypad**: Wireless keypad compatible with Pentacode receivers
- **GSM Gate Opener**: Open your gate with your mobile phone for free!
- **Pre-formed Loops**: Pre-formed vehicle detector in-ground loops
- **Vehicle Detector**: 12, 24 or 240 Volts, 1 or 2 loops, Medium or high sensitivity
- **Locking Actuator**: 12 Volts DC, 50mm Stroke, 20mm Stainless Steel Pin
- **Flashing Lights**: 12 or 24 Volts DC, Red, Blue & Amber, 90 flashes \ min
iS330 Kit

240 Volt motor, Suitable for gates up to 6 metres and 600Kg

SWING GATE OPENERS

- Easy to setup using, Eclipse® Operating System (EOS)
- Powerful hydraulic motors
- Die-cast Aluminium motor cover for great durability
- Mechanical stopper built in the motor for added protection.
- Anti-crash adjustment
- Waterproof cover design
- Anti-wind adjustment
- Soft start and soft stop
- Easy installation

TECHNICAL DATA

<table>
<thead>
<tr>
<th>Power supply</th>
<th>240 Volts AC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor voltage</td>
<td>240 Volts AC</td>
</tr>
<tr>
<td>Max gate weight</td>
<td>600Kg</td>
</tr>
<tr>
<td>Max gate length</td>
<td>6 metres</td>
</tr>
<tr>
<td>Max pressure</td>
<td>50bar</td>
</tr>
<tr>
<td>Opening cycle</td>
<td>34sec</td>
</tr>
<tr>
<td>Closing cycle</td>
<td>40sec</td>
</tr>
<tr>
<td>Compression</td>
<td>795Kg</td>
</tr>
<tr>
<td>Traction</td>
<td>638Kg</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>-20°C~50°C</td>
</tr>
</tbody>
</table>

For detailed information visit www.elsema.com/automatic-gates
**Typical installation**

![Typical installation diagram]

1. Intelligent control box
2. iS330 motor
3. PE1500 photoelectric beam
4. Reflector for PE1500
5. Vehicle detector
6. Wireless Keypad

**Kit contents**

- Intelligent control box with Eclipse operating system
- iS330 dual swing hydraulic motors
- 3 x Keyring remotes with frequency hopping
- Long range reflector type photoelectric beam

**Dimensions**

![Dimensions diagram]

**Ordering Code**

<table>
<thead>
<tr>
<th>PART NUMBERS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>iS330D</td>
<td>Dual swing motor kit</td>
</tr>
<tr>
<td>iS330</td>
<td>Single swing motor kit</td>
</tr>
</tbody>
</table>

**Optional Accessories**

- **PentaCODE® Keypad**
  Wireless keypad compatible with Pentacode receivers

- **GSM Gate Opener**
  Open your gate with your mobile phone for free!

- **Pre-formed Loops**
  Pre-formed vehicle detector in-ground loops

- **Vehicle Detector**
  - 12, 24 or 240 Volts
  - 1 or 2 loops
  - Medium or high sensitivity

- **Locking Actuator**
  - 12 Volts DC
  - 50mm Stroke
  - 20mm Stainless Steel Pin

- **Flashing Lights**
  - 12 or 24 Volts DC
  - Red, Blue & Amber
  - 90 Flashes / min
**DESCRIPTION**

Are you ready for the next Eclipse®? Elsema’s MC controller is not just the next generation but the industry game changer. We wanted to create a controller that is simple to use and does just about any feature required in the gate and door industry. 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. With its rich functions, consumer friendly price and with the focus during development being ease of use and setup makes this controller the ultimate board to control your motors.

Elsema’s easy options to add remote controls or any type of photoelectric beams makes for a very user friendly approach, while avoiding the lockdown 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 with its low standby current of 12mA.

**FEATURES**

- Suitable for swing and sliding gates
- Double or single motor operation
- 24 or 12 Volt DC motor operation
- Motor soft start and soft stop
- Speed and force adjustment
- Large 4-line LCD to indicate controllers status and setup instructions
- 1-Touch control for easy setup
- Auto profiling using latest intelligent technology
- Various inputs, push button, open only, close only, stop, pedestrian and photoelectric beam
- Supports limit switch inputs or mechanical stops
- Adjustable auto close, obstruction load and pedestrian access
- Adjustable lock and courtesy light outputs
- Variable photoelectric safety beam functions
- Energy saving mode to reduce running costs
- 12 and 24 Volt DC Output to power accessories
- Service counters, password protection, holiday mode and many more features
- Built in 12 and 24 Volt battery charger for backup batteries
- 12mA standby current making it ideal for solar gates

**TECHNICAL DATA**

<table>
<thead>
<tr>
<th>Small Size 140mm x 130mm (Card only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suitable for motors up to 12 Amps running current</td>
</tr>
<tr>
<td>Standby current 12mA</td>
</tr>
<tr>
<td>Can be used with or without limit switches</td>
</tr>
<tr>
<td>Test buttons for control inputs</td>
</tr>
</tbody>
</table>

For detailed technical data visit [www.elsema.com/automatic-gates/mcv1.htm](http://www.elsema.com/automatic-gates/mcv1.htm)
Day and night sensor (DNS) option can be used to auto close the gate at night, turn on the courtesy light or lights on your gates during the night and many more features which require a day and night detection.

Ordering code for the day and night sensor is DNS.
**DESCRIPTION**

The Motor Controller Single (MCS) is not just the next generation but the industry game changer. We wanted to create a controller that is simple to use and does just about any feature required in the gate and door industry. The MCS 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 MCS’s Eclipse® Operating System (EOS) is a user friendly menu driven system that uses the 1-touch button to control, setup and run automatic gates, doors and barriers. It uses a large 4-line LCD screen showing live reading of the motor performance and status of all inputs and outputs.

The controller is available with an IP66 rated plastic enclosure with backup batteries, solar gate kits or card only.

**FEATURES**

- Lithium-ion and lead acid battery charger
- Suitable for single swing and sliding gates
- Single motor operation
- Motor soft start and soft stop
- Speed and force adjustment
- Large 4-line LCD to indicate controllers status and setup instructions
- 1-Touch control for easy setup
- Auto profiling using latest intelligent technology
- Various inputs, push button, open only, close only, stop, pedestrian and photoelectric beam
- Supports limit switch inputs or mechanical stops
- Adjustable auto close, obstruction load and pedestrian access
- Adjustable lock and courtesy light outputs
- Variable photoelectric safety beam functions
- Energy saving mode to reduce running costs
- 12 and 24 Volt DC Output to power accessories
- Service counters, password protection, holiday mode and many more features

**TECHNICAL DATA**

- Small Size 90mm x 140mm (Card only)
- Suitable for motors up to 12 Amps running current
- Standby current 12mA
- Can be used with or without limit switches
- Test buttons for control inputs

For detailed technical data visit [www.elsema.com/automatic-gates/mcs.htm](http://www.elsema.com/automatic-gates/mcs.htm)
MC240 with ECLIPSE®
Controller Card for Double or Single 240 Volt AC Motors
Gate and Door Controller with LCD and Intelligent Technology

DESCRIPTION
The 240 Volt AC Motor Controller (MC240) is not just the next generation but the industry game changer. We wanted to create a controller that is simple to use and does just about any feature required in the gate and door industry. The MC240 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.

FEATURES
- Suitable for swing and sliding gates
- Double or Single motor operation
- Eclipse Operating System (EOS)
- Day and night sensor (DNS)
- Motor soft start and soft stop
- Speed and force adjustment
- Large 4-line LCD to indicate controllers status and setup instructions
- 1-Touch control for easy setup
- Profiling using latest intelligent technology
- Various inputs, push button, open only, close only, stop, pedestrian and photoelectric beam
- Supports limit switch inputs or mechanical stops
- Adjustable auto close, obstruction load and pedestrian access
- Adjustable lock and courtesy light outputs
- Variable photoelectric safety beam functions
- Energy saving mode to reduce running costs
- 12 Volt DC Output to power accessories
- Service counters, password protection, holiday mode and many more features

TECHNICAL DATA
- Small Size 130mm x 140mm (Card only)
- Suitable for 240Volt AC motors
- Can be used with or without limit switches
- Test buttons for control inputs

For detailed information visit www.elsema.com/automatic-gates

For detailed technical data visit www.elsema.com/automatic-gates/mc240.htm
Day and night sensor (DNS) option can be used to auto close the gate at night, turn on the courtesy light or lights on your gates during the night and many more features which require a day and night detection.

Ordering code for the day and night sensor is DNS.
**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 240 Volt AC motor. 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 EOS menu instead of the VSD.

For detailed technical data visit:  
www.elsema.com/automatic-gates/mci.htm

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCI-VSD04</td>
<td>Suitable for 0.4kW (1/2hp) motor</td>
</tr>
<tr>
<td>MCI-VSD07</td>
<td>Suitable for 0.75kW (1hp) motor</td>
</tr>
<tr>
<td>MCI-VSD15</td>
<td>Suitable for 1.5kW (2hp) motor</td>
</tr>
<tr>
<td>MCI-VSD22</td>
<td>Suitable for 2.2kW (3hp) motor</td>
</tr>
</tbody>
</table>

Optional Battery Backup. Part No: UPS2000

**FEATURES**

- Designed for Gate or Door motors run by VSD
- Double or Single motor operation
- Eclipse Operating System (EOS)
- Motor soft start and soft stop
- Instant stop on obstruction
- Large 4-line LCD to indicate controllers status and setup instructions
- 1-Touch control for easy setup
- Profiling using latest intelligent technology
- Various inputs, push button, open only, close only, stop, pedestrian and photoelectric beam
- Adjustable auto close, obstruction load and pedestrian access
- Adjustable lock and courtesy light outputs
- Variable photoelectric safety beam functions
- 12 Volt DC Output to power accessories
- Service counters, password protection, holiday mode and many more features

Optional external Push Buttons can be installed on request.

For detailed information visit www.elsema.com/automatic-gates
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.

**MCi-VSD Kit for single motor**

**MCi-VSD Kit for double motors**
**DESCRIPTION**

With solar gate kits there is no need to run mains power down to your gates, the gates are powered by solar energy. All Elsema kits use only 1 solar panel and 1 deep cycle 12 Volt battery, even 24 Volt gate motors are powered by the intelligent battery voltage doubler. This makes installation easy and reduces operating costs.

Our kits are assembled and designed in Australia for the Australian conditions. With the use of a weatherproof case, deep cycle batteries and the intelligent control card, the kits will give you many years of reliable and secure use.

---

**24 Volt Single or Double Gate**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Solar24 *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery</td>
<td>Deep Cycle 12Ah</td>
</tr>
<tr>
<td>Solar Panel</td>
<td>20 or 40 Watts</td>
</tr>
<tr>
<td>Stand-by Use</td>
<td>37 Days</td>
</tr>
</tbody>
</table>

**12 Volt Single or Double Gate**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Solar12 *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery</td>
<td>Deep Cycle 12Ah</td>
</tr>
<tr>
<td>Solar Panel</td>
<td>20 or 40 Watts</td>
</tr>
<tr>
<td>Stand-by Use</td>
<td>37 Days</td>
</tr>
</tbody>
</table>

---

**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 20 or 40 watt panel is usually used. The size will depend on many factors. You can call Elsema’s solar engineer who will guide you to the correct size.

* Depending on the number of accessories an upgrade option is available for the batteries and solar panels. Call Elsema’s solar engineer who will guide you to the correct battery size and solar panel for your application.

---

For detailed information visit [www.elsema.com/automatic-gates](http://www.elsema.com/automatic-gates)
Controller Card for Single 24 or 12 Volt DC Motors
Automatic Door Controller for DC Motors

FEATURES

- Suitable for automatic gates and doors
- Automatic detection for 24 or 12 Volt supply for controller and motor
- Separate overload adjustment for open and close up to 9 Amps
- Plug in type terminal blocks for easy wiring and servicing
- Adjustable auto close from 2 to 60 seconds
- Inputs for push button, open only, photoelectric beam and limit switches
- Optional battery backup available

DESCRIPTION

The ADC402 has been used in the gate and door industry in Australia and around the world for over 2 decades. It is one of the most cost effective solutions to automate your gate or door.

In fact, there is no other card in the market that comes close to it when it comes to cost per feature price. It has automatic 12 or 24 volt detection, limit switch inputs, obstruction detection, photoelectric beam input, push button input, wireless receiver input, light output and auto close features – all as standard features.

The size of the card is only 115 x 105mm making it very easy to be integrated into existing cases with limited space.

If you are looking for a card with more advanced features, then the MCS is your solution.

TECHNICAL DATA

Small Size 115mm x 105mm (Card only)

24 or 12 Volts AC supply

Standby current: 19mA at 12 Volts

Limit switch and photo beam input can be set as NO or NC (see dipswitch setting)

For detailed technical data visit www.elsema.com/automatic-gates/adc402.htm
Controller for Single 240 or 120 Volt AC Motors up to 1kW
Used on Light Commercial Doors, Garage and Sliding Gates

FEATURES

- Adjustable auto close
- Slow Speed and motor force (torque) adjustment
- External key switch for safety and security (only on 240S2)
- Dead man controls for open and close buttons
- Automatic ground and travel distance calibration
- Photocell, pedestrian and wireless remote control inputs
- Supports NC or NO limit switch inputs or travel timer setup
- Aux relay output to control courtesy lights and other accessories
- 24VDC output to supply external accessories such as loop detectors, swipe cards etc
- Customised models available upon request

DESCRIPTION

The 240S1 and 240S2 are very similar cards except for the card size and the 240S2 has a key switch input. Offering two different sizes allows the cards to be easily installed into existing cases as replacement or upgrade cards. These two cards are one of our best valued cards on the market, selling for a very competitive price, yet still loaded with many features.

The control cards were built from the ground up, based on customer feedback and using today’s technology. With its rich functions, consumer friendly price and with the focus during development being ease of use and setup makes these 240VAC control cards the ultimate board to control your motors.

TECHNICAL DATA

- Small Size 240S1: 148 x 92 mm. 240S2: 148 x 120 mm
- Suitable for motors up to 1kW (1.3Hp). For higher rated motors please see 240S3, 240S4
- Can be used with NO or NC limit switches or travel time
- Test buttons for control inputs
- For detailed technical data visit www.elsema.com/automatic-gates/240s1.htm

120 Volt version available for international markets

For detailed information visit www.elsema.com/automatic-gates
CONNECTION DIAGRAM

240S1, Motors up to 1.0kW

240S2, Motors up to 1.0kW
Controller for Single 240 or 120 Volt AC Motors up to 2kW
Used on Light Commercial Doors, Industrial Roller Shutters,
Sectional Doors, Garage and Sliding doors

FEATURES

) Adjustable auto close
) Auto-reset thermal protection
) External key switch for safety and security
) Dead man controls for open and close buttons
) Automatic ground and travel distance calibration
) Photocell, pedestrian and wireless remote control inputs
) Supports NC or NO limit switch inputs or travel timer setup
) Aux relay output to control courtesy lights and other accessories
) 24VDC output to supply external accessories such as loop detectors, swipe cards etc
) Customised models available upon request

DESCRIPTION

The 240S3E and 240S4E industrial controller uses German designed ABB contactors and thermal overloads to control the 240 VAC motor. The 240S3E is for 240 VAC motors using 3 wires and the 240S4E is for 240 VAC motor using 4 wires.

A toroidal transformer is used to power the control card and contactors.

Using a toroidal transformer offers the following advantages:

) Excellent efficiency and low leakage losses reducing your electricity consumption
) High isolation which protects the electronics from noisy power lines
) Low magnetic field radiation and no acoustic noise enabling the controller to pass EMC and other stringent radiation tests

This is the quality you should demand when using 240 VAC motor controllers.

TECHNICAL DATA

| 240S3E-9.0: Suitable for 3-wire motors up to 1.5kW (2.0HP) | 240S3E-12: Suitable for 3-wire motors up to 2.0kW (2.6HP) |
| 240S4E-9.0: Suitable for 4-wire motors up to 1.5kW (2.0HP) | 240S4E-12: Suitable for 4-wire motors up to 2.0kW (2.6HP) |
| Can be used with NO or NC limit switches |
| Test buttons for control inputs |
| Dual interlock for added safety |
| LEDs indicate when inputs are active. A very handy feature during installation or troubleshooting |
| For detailed technical data visit www.elsema.com/automatic-gates/240s3.htm |

120 Volt version available for international markets
CONNECTION DIAGRAM

240S3E
Motors with 3 Wires

240S4E
Motors with 4 Wires
415S1E Series
Controller for 415VAC 3-Phase Motors up to 1.6kW
3-Phase Motors used on Light Commercial Doors, Industrial Roller Shutters, Sectional Doors, Garage and Sliding Doors

FEATURES

) Adjustable auto close
) Auto-reset thermal protection
) External key switch for safety and security
) Dead man controls for open and close buttons
) Automatic ground and travel distance calibration
) Photocell, pedestrian and wireless remote control inputs
) Supports NC or NO limit switch inputs or travel timer setup
) Aux relay output to control courtesy lights and other accessories
) 24VDC output to supply external accessories such as loop detectors, swipe cards etc
) Customised models available upon request

DESCRIPTION

The 415S1E industrial controller uses German designed ABB contactors and thermal overloads with phase failure compensation to control the 3-phase motor. The controller uses a dual interlock protection system for extra safety.

Using a toroidal transformer offers the following advantages:

) Excellent efficiency and low leakage losses reducing your electricity consumption

) High isolation which protects the electronics from noisy power lines

) Low magnetic field radiation and no acoustic noise enabling the controller to pass EMC and other stringent radiation tests

This is the quality you should demand when using 3-phase motor controllers.

TECHNICAL DATA

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>415S1E-2.4</td>
<td>Suitable for 3-phase motors up to 1kW (1.3HP)</td>
</tr>
<tr>
<td>415S1E-4.0</td>
<td>Suitable for 3-phase motors up to 1.6kW (2.2HP)</td>
</tr>
</tbody>
</table>

Can be used with NO or NC limit switches

Test buttons for control inputs

Dual interlock for added safety

LEDs indicate when inputs are active. A very handy feature during installation or troubleshooting.

For detailed technical data visit www.elsema.com/automatic-gates/415s1.htm
In installations where neutral is not available, a 415 to 240 VAC transformer is used to power the control card.

Ordering code for the 415 to 240 VAC transformer is **TT415-240**.
PentaFOB® SERIES

433MHz Keyring Remotes
The next generation of remote controls, superior to normal garage door rolling code remotes

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, for Australia
- Competitive pricing
- Works with all PCR Penta series of receivers

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.

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
- Operating frequency: 433.100 to 434.700 MHz
- Custom front colours available

For detailed technical data visit www.elsema.com/automatic-gates/fob.htm
The keyring retainer in the PentaFOB® is moulded as part of the chassis using reinforced nylon making for a super sturdy keyring mount.

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

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

433MHz Keyring Remotes
The next generation of remote controls, superior to normal garage door rolling code remotes

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, for Australia
- Competitive pricing
- Works with all PCR Penta series of receivers

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 accidently knocked against hard surfaces.

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

For detailed technical data visit: www.elsema.com/fob43302h.htm

TECHNICAL DATA

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Powered by 2 x AA batteries (included)</td>
<td></td>
</tr>
<tr>
<td>Over 17 billion encrypted codes</td>
<td></td>
</tr>
<tr>
<td>Operating range of up to 100 metres depending on building structure and receiver antenna</td>
<td></td>
</tr>
<tr>
<td>18mA (typical) at 3 Volts DC supply during transmission</td>
<td></td>
</tr>
<tr>
<td>Dimensions: 125 x 75 x 35 mm</td>
<td></td>
</tr>
<tr>
<td>Operating frequency: 433.100 to 434.700 MHz</td>
<td></td>
</tr>
<tr>
<td>Works with all PCR Penta series of receivers</td>
<td></td>
</tr>
</tbody>
</table>

Batteries Included
FOB WALL SWITCH

4-Button, Wireless Wall Remote with PentaFOB® Technology

**FEATURES**

- Ultra slim and stylish design for wall mount
- Compatible with standard single-gang wall 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, for 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

**For detailed technical data visit:** www.elsema.com/automatic-gates/wireless-wall-switch.htm

**TECHNICAL DATA**

<table>
<thead>
<tr>
<th>Details</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating range of up to 100 metres depending on building structure and receiver antenna</td>
<td></td>
</tr>
<tr>
<td>Over 17 billion encrypted codes</td>
<td></td>
</tr>
<tr>
<td>18mA (typical) at 3 Volts DC supply during transmission</td>
<td></td>
</tr>
<tr>
<td>Battery life of 2 years with average use</td>
<td></td>
</tr>
<tr>
<td>Operating frequency: 433.100 to 434.700 MHz</td>
<td></td>
</tr>
<tr>
<td>Works with all PCR Penta series of receivers</td>
<td></td>
</tr>
</tbody>
</table>
Add, Edit, Delete, Backup and Restore PentaFOB® remotes

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.

FEATURES

- Add, Edit and Delete 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

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.

ACCESSORY

<table>
<thead>
<tr>
<th>FOBCABLE: USB CABLE TO CONNECT THE PROGRAMMER TO THE PENTA SERIES RECEIVERS</th>
</tr>
</thead>
</table>

FOBCHIP: BACKUP AND RESTORE CHIP. USE THIS MEMORY CHIP TO BACKUP OR RESTORE ALL PROGRAMMED REMOTES IN A RECEIVER.

For detailed information visit www.elsema.com/automatic-gates
PentaCODE® SERIES

PentaCODE® Series 433MHz Keyring Remotes
The next generation of remote controls, superior to normal garage door rolling code remotes

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, for Australia
- 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
- Operating frequency: 433.100 to 434.700 MHz
- Custom print available for front labels
- For detailed technical data visit www.elsema.com/automatic-gates/keyfob.htm
**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 receiver is available as a standalone card with relay outputs or as a plug in type with the standard 6-pin connector.

**Features**

- 1, 2, 4 or 5 channel versions available
- Plug-in type or with relay outputs
- Uses frequency hopping spread spectrum (FHSS)
- Antenna Diversity for extended range
- High sensitivity at 0.316uV (-117dBm)
- Relay outputs rated at 10 Amps / 240 Volts AC
- One of the most secure remote control systems on the market
- Competitive pricing
- Designed and tested in Australia
- Wiegand Output, PCR433WG

**Technical Data**

| Supply PCR43302P: 7 to 36 Volts DC |
| Supply PCR43302R: 11 to 28 Volts AC or DC (No Case, PCB Only) |
| Supply PCR43302RE: 11 to 28 Volts AC or DC (With a Weatherproof Case) |
| 12-way dip switch coding or one of over 17 billion encrypted codes. |
| Option of 1, 2, 4 or 5 Relay Outputs or Wiegand Output |
| Operating range: Refer to the remote control or transmitter datasheet |
| Operating frequency: 433.100 to 434.700 MHz |
| For detailed technical data visit www.elsema.com/prod-pcr.htm |

For detailed information visit [www.elsema.com/automatic-gates](http://www.elsema.com/automatic-gates)
**PCR43302R**

- 12-24 Volts AC/DC Supply
- Channel 1
  - Supply Input
  - Relay 1 NO
  - Relay 1 C
  - Relay 1 NC
  - Relay 2 NC
  - Relay 2 C
  - Relay 2 NO
- Channel 2
  - Supply Input
- Antenna
- Shield
- Antenna

- Programming button
- 12-way dip switch
- Ch1 / Open
- Ch2 / Close

- Maximum SwitchingAmperes at each 12 Volts AC

- Minimum Supply Input
- Relay 1 C
- Relay 1 NC
- Relay 2 NC
- Relay 2 C
- Relay 2 NO

- 55mm
- 44mm

- Programming button
- Cut links for latching action

- Code Change
- Prog 1
- Prog 2

Gate and Door Technology since 1978
REPEATER / BOOSTER

Repeater for PentaFOB® & PentaCODE® Remotes

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 with high RF power which can increase the operating range of the remote 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: 12 to 24 Volts AC or DC or Micro USB
- Current Consumption: 25 mA 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 of up to 500 metres depending on building structure and antenna

For detailed technical data visit www.elsema.com/pctr433.htm
FEATURES

- Easy to add remote controls to any Wiegand input access control panel
- Remotes are added like cards or RFID tags with no software changes
- Wireless keyless entry offers convenience, security and safety for accessing gates, doors and boom gates
- Wide operating supply voltage and low current consumption
- Easy way to facilitate for handicapped access
- Compatible with PentaCode® remotes
- Easy to use dipswitch coding

DESCRIPTION

This receiver allows you to add wireless remote controls to your existing access control systems by connecting the PCR433WG receiver to the access system. The remote controls have a range of up to 200 metres (640 feet) and are available with 2 or 4 buttons. The extra buttons can be used as a panic button allowing a single remote to allow access control and panic alert system.

The receivers Wiegand output interfaces to virtually any commercial access control panel.

Remote controls are added as easily as Wiegand cards or RFID tags without any software changes. The ID and facility codes can be matched to the system requirements.

The receiver has a bi-colour LED to act as a status display. Red LED indicates that AC or DC power is "On" and Green LED indicates remote control signal has been received.

TECHNICAL DATA

- Supply: 11 to 28 Volts AC or DC
- Wiegand Format: 26 bits, other formats available upon request.
- Standby: 31mA
- Connections: Flying leads 50mm
- Operating range of up to 200 metres depending on building structure and receiver antenna
- Operating frequency: 433.100 to 434.700 MHz

For detailed technical data visit www.elsema.com/prod-pcr.htm
**WIRELESS KEYPAD**

Wireless Keypad works with Elsema’s Penta series receivers

The PCKeypad is a wireless keypad with a PentaCode transmitter built-in. It works with all Elsema’s PCR series receivers. The installer has the option to use the classic 12-way dip switch coding or one of over 17 billion encrypted codes. (Please refer to the user manual)

The PCKeypad is suitable for mounting either indoor or outdoor in harsh environments. It is housed in a strong vandal proof zinc alloy electroplated case.

**FEATURES**

- Built-in PentaCode® transmitter
- Adjustable transmission time
- 2,000 users, PIN length 4 to 8 digits
- Easy programming
- Long operating range
- Supply can be AC or DC
- Keypad has a backlight
- All programming is done from the keypad
- Built in light dependent resistor (LDR) for anti tamper

**DESCRIPTION**

The Keypad conforms to Ingress Protection 65.

The PCKeypad supports up to 2000 users with 4 to 8 digit PIN.

These features make PCKeypad an ideal choice for gate and door access for homes, shops, factories, warehouses, laboratories, banks and prisons.

**TECHNICAL DATA**

Supply: 12 - 24 Volts DC or 12 - 18 Volts AC

Dimensions: 128 x 82 x 28 mm

Operating Range of up to 50 metres with line of sight

Adjustable Transmission Time : 1-90 seconds

For detailed technical data
visit www.elsema.com/automatic-gates/keypad.htm
PHOTOELECTRIC BEAMS
Photoelectric beam for automatic gates and doors

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.htm

<table>
<thead>
<tr>
<th>PE1500</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Long Range Retro reflective type photoelectric beam with Polarised Polycarbonate case</strong></td>
</tr>
<tr>
<td><strong>Type</strong></td>
</tr>
<tr>
<td><strong>Supply</strong></td>
</tr>
<tr>
<td><strong>Range</strong></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PE24</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>12-24 Volts AC/DC Through beam type</strong></td>
</tr>
<tr>
<td><strong>Type</strong></td>
</tr>
<tr>
<td><strong>Supply</strong></td>
</tr>
<tr>
<td><strong>Range</strong></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAB4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>4-Core Photoelectric beam wires</strong></td>
</tr>
<tr>
<td><strong>Length</strong></td>
</tr>
</tbody>
</table>
ADC402
Controller Card for Single 24 or 12 Volt DC Motors
Automatic Door Controller for DC Motors

GSM GATE OPENER (3G COMPATIBLE)
Opens automatic gates and doors with a free phone call. Unlimited range

FEATURES

- Up to 999 users
- 3G network compatible
- Built-in battery back-up
- Switches relay with free call from mobile phone
- Digital inputs for sensors or switching
- SMS confirmation of relay switching
- Secure password protected
- Only authorised numbers can operate the G-2000

DESCRIPTION

The G-2000 can have up to 999 authorised numbers and uses the 3G Telstra and Vodafone network for communication (Not compatible with Optus). All you need is to insert a valid SIM card and program phone numbers of all users, using the PC software or through simple SMS text commands. When an authorised user makes a call to the receiver, it rejects the call and activates a relay. Since the call is rejected the user is not charged for the call.

The G-2000 works on 3G network therefore the receiver can be activated from anywhere in the country where 3G mobile network is available. For example you can open your gate or switch on your kitchen lights in Sydney from Melbourne by making a call from your mobile phone and without getting charged.

TECHNICAL DATA

- Supply: 12 Volts DC (12 Volts DC power pack included)
- Dimensions: 150 x 95 x 25 mm
- Authorised numbers easily entered by PC Software
- Output relays can switch 3A, 240VAC

For detailed technical data
visit www.elsema.com/automatic-gates/g-2000.htm

For detailed information visit www.elsema.com/automatic-gates
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.

<table>
<thead>
<tr>
<th>Supply</th>
<th>24 Volts DC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke</td>
<td>50mm</td>
</tr>
<tr>
<td>Dimensions</td>
<td>551 x 112 x 74mm</td>
</tr>
</tbody>
</table>

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 270kg holding force

<table>
<thead>
<tr>
<th>Holding force</th>
<th>270kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply</td>
<td>Can be 12 or 24 Volts DC</td>
</tr>
<tr>
<td>Dimensions</td>
<td>200 x 44 x 40mm</td>
</tr>
</tbody>
</table>

Waterproof Magnetic lock with 560kg holding force

<table>
<thead>
<tr>
<th>Holding force</th>
<th>560kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply</td>
<td>Can be 12 or 24 Volts DC</td>
</tr>
<tr>
<td>Dimensions</td>
<td>220 x 64 x 41mm</td>
</tr>
</tbody>
</table>

For detailed technical data visit www.elsema.com/automatic-gates/magneticlock.htm
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 with 1 or 2 channel relay outputs.

**LD30-12 / LD30-24**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitivity</td>
<td>High</td>
</tr>
</tbody>
</table>
| Supply     | LD30-12: 10 to 14 Volts AC/DC  
             | LD30-24: 22 to 28 Volts AC/DC  |
| Output     | Single relay output |

**MD2010**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitivity</td>
<td>Medium</td>
</tr>
<tr>
<td>Supply</td>
<td>12-24 Volts AC/DC</td>
</tr>
<tr>
<td>Output</td>
<td>Single relay output</td>
</tr>
</tbody>
</table>

**MD12-1**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitivity</td>
<td>Medium</td>
</tr>
<tr>
<td>Supply</td>
<td>12 Volts DC</td>
</tr>
<tr>
<td>Range</td>
<td>Single relay output</td>
</tr>
</tbody>
</table>

**MD12-2**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitivity</td>
<td>Medium</td>
</tr>
<tr>
<td>Supply</td>
<td>12 Volts DC</td>
</tr>
<tr>
<td>Output</td>
<td>Double relay output</td>
</tr>
</tbody>
</table>

**MD240-1**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitivity</td>
<td>Medium</td>
</tr>
<tr>
<td>Supply</td>
<td>240 Volts AC</td>
</tr>
<tr>
<td>Output</td>
<td>Single relay output</td>
</tr>
</tbody>
</table>

**MD240-2**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitivity</td>
<td>Medium</td>
</tr>
<tr>
<td>Supply</td>
<td>240 Volts AC</td>
</tr>
<tr>
<td>Output</td>
<td>Double relay output</td>
</tr>
</tbody>
</table>

For detailed technical data visit [www.elsema.com/automatic-gates/loopdetector.htm](http://www.elsema.com/automatic-gates/loopdetector.htm)
SAW-CUT LOOPS

Inductive loops tune to Elsema’s Loop Detectors

Saw-cut loops make installations easy, hassle-free and prevents false detections and detector lock ups as they are one of the leading reasons why installers must do a repeat service call on brand new gate systems with loops installed. Which is unfortunate because it is a very difficult issue to diagnose, especially if you aren’t considering air pockets as the cause of the problem.

Our saw-cut loops have a custom durable polyethylene outer jacket that protects nylon coated polyethylene insulated 16AWG stranded wire. These Loops have a built-in wing shaped backer-rod that causes the loop to fit snugly in a 3/16” saw-cut groove.

Our unique wire design prevents the installer from having to install backer-rod and creates a seal at the bottom of the groove, allowing the installer to apply sealant to a flat surface and resulting in at least a 30% savings in loop sealant to seal the groove when compared with hand wrapped wires in a ¼” wide groove.

SCL7

<table>
<thead>
<tr>
<th>Application</th>
<th>Domestic</th>
<th>Commercial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Driverway width</td>
<td>Up to 3.6m</td>
<td>Up to 3.3m</td>
</tr>
<tr>
<td>Loop Size</td>
<td>1.2 x 2.4m</td>
<td>1.8 x 1.8m</td>
</tr>
</tbody>
</table>

SCL9

<table>
<thead>
<tr>
<th>Application</th>
<th>Domestic</th>
<th>Commercial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Driverway width</td>
<td>Up to 4.2m</td>
<td>Up to 3.6m</td>
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<tr>
<td>Loop Size</td>
<td>1.2 x 3.3m</td>
<td>1.8 x 2.4m</td>
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SCL10

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<tr>
<th>Application</th>
<th>Domestic</th>
<th>Commercial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Driverway width</td>
<td>Up to 4.8m</td>
<td>Up to 4.2m</td>
</tr>
<tr>
<td>Loop Size</td>
<td>1.2 x 3.6m</td>
<td>1.8 x 3.0m</td>
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SCL12

<table>
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<tr>
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<th>Domestic</th>
<th>Commercial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Driverway width</td>
<td>Up to 6m</td>
<td>Up to 5.4m</td>
</tr>
<tr>
<td>Loop Size</td>
<td>1.2 x 4.8m</td>
<td>1.8 x 4.2m</td>
</tr>
</tbody>
</table>

Pre-formed saw-cut loop

Durable and flexible sealant for saw-cut loops.
Ordering code: S575.
DIRECT BURIAL LOOPS

Inductive loops tune to Elsema’s Loop Detectors

Used for installations under concrete, asphalt, pavers, or in gravel roads. The most common installation is the loop tied directly to the rebar before concrete is poured. Wire is designed for a direct burial application.

Unlike loops wrapped through PVC, The Direct Burial Loop does not have an air pocket resulting in fewer repeat service calls due to phantom detections caused by ground vibration.

Our Direct Burial loops are build with Solid 16AWG to create a tough rigid product that won’t fall below the rebar pattern. 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**

<table>
<thead>
<tr>
<th>Application</th>
<th>Domestic</th>
<th>Commercial</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Up to 3.3m</td>
</tr>
<tr>
<td>Loop Size</td>
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<td>1.8 x 1.8m</td>
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**DBL9**

<table>
<thead>
<tr>
<th>Application</th>
<th>Domestic</th>
<th>Commercial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Driverway width</td>
<td>Up to 4.2m</td>
<td>Up to 3.6m</td>
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<tr>
<td>Loop Size</td>
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<td>1.8 x 2.4m</td>
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</tbody>
</table>

**DBL10**

<table>
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<tr>
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<th>Domestic</th>
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</tr>
</thead>
<tbody>
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<tr>
<td>Loop Size</td>
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<td>1.8 x 3.0m</td>
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</table>

**DBL12**

<table>
<thead>
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<th>Domestic</th>
<th>Commercial</th>
</tr>
</thead>
<tbody>
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<td>Driverway width</td>
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<td>Up to 5.4m</td>
</tr>
<tr>
<td>Loop Size</td>
<td>1.2 x 4.8m</td>
<td>1.8 x 4.2m</td>
</tr>
</tbody>
</table>

Install the highest quality loop, save time, and reduce service calls by using a Elsema’s preformed loop.

For detailed technical data visit [www.elsema.com/automatic-gates/inductive-loop.htm](http://www.elsema.com/automatic-gates/inductive-loop.htm)
GEAR RACKS & SAFETY BUMP STRIP

GEAR RACKS & SAFETY BUMP STRIP

DESCRIPTION
Elsena stocks steel re-enforced, nylon gear racks for automatic sliding gates. These racks are 1 metre long and comes in packs of 4 with mounting screws and brackets. Competitively priced and quality you can trust, they are the best value for money.

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.

Compatible with Penta series of receivers

Battery operated transmitter included

Stops the gate when compressed
LED FLASHING LIGHTS
Flashing lights to indicate automatic gate or door operation

DESCRIPTION
Flashings lights (also known as warning lights or strobe lights) are used as an indicator for automatic operation of gates and doors. They are ideal for high traffic areas or on commercial gates for added safety. Elsema has different colour lights to suit your application.

<table>
<thead>
<tr>
<th>PART NUMBERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>■ E80-A</td>
</tr>
<tr>
<td>■ E80-B</td>
</tr>
<tr>
<td>■ E80-R</td>
</tr>
<tr>
<td>■ E80-G</td>
</tr>
</tbody>
</table>

Series E80 Series
Supply 12-24 Volts DC
Flashing rate 60-80 flashes per minute

Series E80L Series 90° Wall Mount Type
Supply 12-24 Volts DC
Flashing rate 60-80 flashes per minute

For detailed technical data visit www.elsema.com/automatic-gates/strobelight.htm
DESCRIPTION

Elsema has a range of batteries for all its products. Our range includes batteries for keyring remotes to backup of 24 or 12 volts automatic gates and doors. Backup batteries combined with smart solar chargers and solar panels, provides you with a hassle-free operation 24 hours a day - even during power blackouts.

3 Volt lithium battery

<table>
<thead>
<tr>
<th>Part Number</th>
<th>CR2032</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>3 Volts</td>
</tr>
<tr>
<td>Type</td>
<td>Lithium</td>
</tr>
</tbody>
</table>

Energizer 12 Volt alkaline battery

<table>
<thead>
<tr>
<th>Part Number</th>
<th>A23</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply</td>
<td>12 Volts</td>
</tr>
<tr>
<td>Type</td>
<td>Alkaline</td>
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</tbody>
</table>

9 Volt carbon battery

<table>
<thead>
<tr>
<th>Part Number</th>
<th>6F22</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply</td>
<td>9 Volts</td>
</tr>
<tr>
<td>Type</td>
<td>Carbon</td>
</tr>
</tbody>
</table>

Energizer 9 Volt alkaline battery

<table>
<thead>
<tr>
<th>Part Number</th>
<th>6LR61</th>
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</thead>
<tbody>
<tr>
<td>Supply</td>
<td>9 Volts</td>
</tr>
<tr>
<td>Type</td>
<td>Alkaline</td>
</tr>
</tbody>
</table>

For detailed technical data visit www.elsema.com/automatic-gates/battery.htm
Deep cycle backup batteries for automatic solar gates

12 Volt, 2.6Ah rechargeable lead acid battery

- Part Number: Lab12-2.6
- Supply: 12 Volts, 2.6Ah
- Type: Sealed Lead Acid
- Dimensions: 178 x 35 x 67mm

12 Volt, 1.2Ah rechargeable lead acid battery

- Part Number: Lab12-1.2
- Supply: 12 Volts, 1.2Ah
- Type: Sealed Lead Acid
- Dimensions: 97 x 45 x 59mm

12 Volt, 7.0Ah rechargeable lead acid battery

- Part Number: Lab12-7.0
- Supply: 12 Volts, 7.0Ah
- Type: Sealed Lead Acid
- Dimensions: 151 x 65 x 98mm

12 Volt, 15Ah deep cycle battery

- Part Number: Lab12-15D
- Supply: 12 Volts, 15Ah
- Type: Deep Cycle Battery
- Dimensions: 151 x 101 x 98mm

UPS2000: Battery backup for 240 VAC motor operators
For detailed information visit www.elsema.com/automatic-gates

BATTERY CHARGERS
Battery chargers for solar applications or for AC backup systems

DESCRIPTION
Elsema battery chargers are designed to quickly and effectively charge batteries to its full capacity. They can be used for standalone solar applications or for backup systems with AC supply. The BACH12-1200 and the BACH24-1200 chargers batteries with 1.2 Amps max current while the CMP12 is designed for solar application. The CMP12 automatically detects the system voltage of either 12 or 24 Volts and adjusts its charging voltage accordingly.

1.2 Amps charger with LED indication

<table>
<thead>
<tr>
<th>Part Number</th>
<th>BACH12-1200 : 12 Volts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BACH24-1200 : 24 Volts</td>
</tr>
<tr>
<td>Charging Current</td>
<td>1.2 Amps</td>
</tr>
</tbody>
</table>

10 Amps solar charger with LED indication

<table>
<thead>
<tr>
<th>Part Number</th>
<th>CMP12 : 12 Volt DC Solar Panel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charging Current</td>
<td>10 Amps</td>
</tr>
</tbody>
</table>

FEATURES
- Over-load protection
- Short circuit protection
- Reverse polarity protection
- Over charging protection
- Under voltage protection

Should only be used for Solar Application and with Lead Acid Batteries

LED indication

<table>
<thead>
<tr>
<th>LED</th>
<th>Continous “On”</th>
<th>Blinking</th>
<th>Off</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charge (Green)</td>
<td>Charging</td>
<td>Float mode</td>
<td>Charging has stopped</td>
</tr>
<tr>
<td>Load (Green)</td>
<td>Load is powered</td>
<td>X</td>
<td>Load is not powered</td>
</tr>
<tr>
<td>Battery (3 Red)</td>
<td>Battery level</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For detailed technical data visit www.elsema.com/automatic-gates/charger.htm
SP5, SP10, SP20, SP40 & SP60

High Efficiency 5, 10, 20, 40 and 60 Watt Solar Panels

FEATURES

› 20 years 80% power guarantee, 10 years 90% power guarantee
› High efficiency, monocrystalline silicon solar cells
› Uses high transparency 3.2mm tempered low iron glass
› Improved low-light performance
› Anodized aluminum alloy frame

DESCRIPTION

The SP range of solar panels provides you with an eco-friendly power solution for your automatic gate or door applications. These solar panels are ideal for sites without power lines, saving the cost of running power lines to your gates.

Solar panels combined with our intelligent battery charger and suitable battery will supply your gates or doors with free solar energy.

TECHNICAL DATA

<table>
<thead>
<tr>
<th>Model</th>
<th>SP5</th>
<th>SP10</th>
<th>SP20</th>
<th>SP40</th>
<th>SP60</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated Power (Watts)</td>
<td>5 Watts</td>
<td>10 Watts</td>
<td>20 Watts</td>
<td>40 Watts</td>
<td>60 Watts</td>
</tr>
<tr>
<td>V_{mp} (Volts)</td>
<td>17.8V</td>
<td>17.8V</td>
<td>17.8V</td>
<td>17.8V</td>
<td>17.8V</td>
</tr>
<tr>
<td>I_{mp} (Amps)</td>
<td>0.28 A</td>
<td>0.56 A</td>
<td>1.12 A</td>
<td>2.25 A</td>
<td>3.37 A</td>
</tr>
<tr>
<td>V_{oc} (Volts)</td>
<td>22.3 V</td>
<td>22.3 V</td>
<td>22.3 V</td>
<td>22.3 V</td>
<td>22.3 V</td>
</tr>
<tr>
<td>I_{sc} (Amps)</td>
<td>0.30 A</td>
<td>0.61 A</td>
<td>1.21 A</td>
<td>2.43 A</td>
<td>3.64 A</td>
</tr>
<tr>
<td>Dimension (mm)</td>
<td>250 x 185 x 15</td>
<td>415 x 185 x 18</td>
<td>430 x 345 x 25</td>
<td>550 x 505 x 25</td>
<td>770 x 505 x 30</td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>0.5</td>
<td>1.0</td>
<td>2.0</td>
<td>3.5</td>
<td>5.0</td>
</tr>
</tbody>
</table>
Cases are all to EN60529 standard with Ingress Protection of IP66. Suitable for temperature range -40 to +80 degrees.

For detailed information visit www.elsema.com/automatic-gates
**International Protection (IP) Ratings**

IP54 = IP Letter Code _____ IP

1st Digit ____________ 5

2nd Digit ___________ 4

<table>
<thead>
<tr>
<th>1st Digit</th>
<th>Protection from solid objects</th>
<th>2nd Digit</th>
<th>Protection from moisture</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>NON-PROTECTED</td>
<td>0</td>
<td>NON-PROTECTED</td>
</tr>
<tr>
<td>1</td>
<td>Protected against solid objects greater than 50mm</td>
<td>1</td>
<td>Protected against dripping water</td>
</tr>
<tr>
<td>2</td>
<td>Protected against solid objects greater than 12mm</td>
<td>2</td>
<td>Protected against dripping water when tilted up to 15º</td>
</tr>
<tr>
<td>3</td>
<td>Protected against solid objects greater than 2.5mm Ø</td>
<td>3</td>
<td>Protected against spraying water</td>
</tr>
<tr>
<td>4</td>
<td>Protected against solid objects greater than 1.0mm Ø</td>
<td>4</td>
<td>Protected against splashing water</td>
</tr>
<tr>
<td>5</td>
<td>Dust protected</td>
<td>5</td>
<td>Protected against water jets</td>
</tr>
<tr>
<td>6</td>
<td>Dust tight</td>
<td>6</td>
<td>Protected against heavy seas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7</td>
<td>Protected against the effects of immersion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8</td>
<td>Protected against submersion</td>
</tr>
</tbody>
</table>

For detailed information visit [www.elsema.com/automatic-gates](http://www.elsema.com/automatic-gates)
AXIOM Series
Engineered to Perfection

Control cards and gate controller kits for Variable Speed Drive motors

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