Solutions for Doors and Access controls

Designed to meet market requirements

The market for automated doors is growing and becoming more specialised. The type of product that fits best with a particular application is determined by frequency of operation, speed of operation required, new versus existing construction, traffic flow and cost.

Automatic doors are a normal feature in many commercial buildings and infrastructures such as shopping centres and airports, as well as in industrial environments such as factories and also in residential buildings.

Although they come in a variety of types, including sliding, swing, folding, up-and-over etc.; they all need to conform to the highest standards of safety.

In an industrial environment, which is the largest part of our business, automatic doors enable the set temperature in cold storage rooms to be maintained by fast opening and closing, leading to considerable energy efficiency and reduction of costs. Automated doors in commercial facilities are the preferred means of access for all users, not only people with disabilities, and are a significant aid to accessibility. Moreover, their use minimizes heat or air conditioning loss, maintaining a constant temperature and consequently saving money.

This brochure highlights the following market applications: industrial doors, garage doors, pedestrian doors, access controls, gates and barriers, intended for installation in areas where the main purpose is to give safe access for goods and accompanied vehicles, in industrial and commercial premises and in residential garages.

Carlo Gavazzi has developed its expertise in the Industrial Door segment of the market and our products are designed and manufactured in full compliance with both North American and European standards.

Our product families are certified to meet EN 13241-1, EN 12978, EN 12445, EN 12453 and UL 325 regulations for safety in the use of power operated doors such as industrial and garage doors and gates.

About Carlo Gavazzi

Carlo Gavazzi Automation is a multinational electronics group active in the design, manufacture and marketing of electronic equipment targeted at the global markets of industrial and building automation.

Our history is full of firsts and our products are installed in a huge number of applications all over the world. With more than 80 years of successful operation, our experience is unparalleled.

We have our headquarters in Europe and numerous offices around the world.

Our R&D competence centres and production sites are located in Denmark, Italy, Lithuania, Malta and the People’s Republic of China.

We operate worldwide through 22 of our own sales companies and also selected representatives in more than 65 countries, from the United States in the West to the Pacific Rim in the East.

Our core competence in automation spans three product lines: Sensors, Switches and Controls.

Our wide array of products includes sensors, monitoring relays, timers, energy management system, solid state relays, safety devices and fieldbus systems.

We focus our expertise on offering state-of-the-art product solutions in selected market segments.

Our customers include original equipment manufacturers of packaging machines, plastic-injection moulding machines, food and beverage production machines, conveying and material handling equipment, door and entrance control systems, lifts and escalators, as well as heating, ventilation and air-conditioning devices.
## Automatic doors and Access controls

<table>
<thead>
<tr>
<th>Component</th>
<th>Roller, Shutter, Folding and Speed doors</th>
<th>Sectional and Up-and-Over doors</th>
<th>Gates and barriers</th>
<th>Pedestrian doors</th>
<th>Access controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combined motion and presence detectors</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
</tr>
<tr>
<td>Inductive sensors</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
</tr>
<tr>
<td>Loop detectors</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
</tr>
<tr>
<td>Photoelectric sensors</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
</tr>
<tr>
<td>Slim industrial relays</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
</tr>
<tr>
<td>Switching power supplies</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
</tr>
<tr>
<td>Variable speed drives</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
</tr>
<tr>
<td>Wireless safety system</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
</tr>
</tbody>
</table>
### Photoelectric Sensors

**PA12/PB10**
- 20 m sensing distance
- Light beam approved to Safety Category 2
- UL325, UL508, EN12445, EN12453, EN12978
- Coded sensors available for less crosstalk
- Datasheet PA12 coded
- Datasheet PA12 no coded

**PE12/PB18**
- 15 m sensing distance
- Light beam approved to ESPE 2, PL C
- UL325, UL508, EN12445, EN12453, EN12978, EN13849-1
- Coded sensors available for less crosstalk
- Datasheet PE12 coded
- Datasheet PE12 no coded
- Datasheet PB18

**PD70**
- Emitter with Mute Input for testing the sensor
- 12 m sensing distance
- Light beam approved to Safety Category 2
- UL325, UL508, EN12445, EN12453, EN12978
- Datasheet
- Product brochure

**MOFT + S142**
- Up to 50 m sensing distance
- Light beam approved to Safety Category 2
- UL508, EN12445, EN12453, EN12978
- Up to 3 multiplexed channels
- Datasheet MOFT
- Datasheet S142

**PM**
- Through beam and Polarized Retro-reflective sensors
- Light beam approved to Safety Category 2
- UL325, UL508, EN12445, EN12453, EN12978
- Datasheet PMP
- Datasheet PMT

**PD86 /PD86HNP**
- Polarized Retro-reflective sensors
- Light beam approved to Safety Category 2
- UL325, UL508, EN12445, EN12453, EN12978
- Datasheet PD86
- Datasheet PD86HNP
- Product brochure
- Application note

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doors

Photoelectric sensors

PD98
- 30 m sensing distance
- Light beam approved to Safety Category 2
- UL25, UL508, EN12445, EN12453, EN12978

Wireless safety system

WSM / WSS / PB11
- 10 m wireless distance, 15 m for the gate version
- Light beam approved to Safety Category 2
- UL508, EN12445, EN12453, EN12978, FCC, IC
- Replacing wired safety solutions for doors and gates

Loop detectors

LDP1 / LDP2 / LDD1 / LDD2
- Single loop or dual loop
- DIN rail mounting
- UL and CSA approved
- Multicolour LED for easy setup and intuitive diagnostics
- Selectable fail safe and fail secure mode

Variable speed drives

RVLF
- Compact dimensions 72 x 141 x 139 mm
- Built-in EMI filter
- Single-phase or three-phase supply
- Ease of use, minimal settings
- CE, UL, ROHS approved

Switching power supplies

SPD / SPMA / SPDM / SPDC
- Compact dimensions
- High efficiency and wide operating temperature
- Wide output power and voltage
- CE, cULus, cURus, UL1310 Class 2 (up to 90W), ISA 12.12.1 Class I Div2, UL12101 Class I Div2, UL62368, TÜV, CCC

Slim industrial relays

RSLM
- Slim size
- High breakdown voltage
- Conforms to VDE 0700, 0631 reinforced insulation
- High sensitivity

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### Sectional and Up-and-Over doors

#### Photoelectric sensors

**PE12/PB18**
- 15 m sensing distance
- Light beam approved to ESPE 2, PL C
- UL325, UL508, EN12445, EN12453, EN12978, EN13849-1
- Coded sensors available for less crosstalk

- Datasheet PE12 coded
- Datasheet PE12 no coded
- Datasheet PB18

**PM**
- Through beam and Polarized Retro-reflective sensors
- Light beam approved to Safety Category 2
- UL325, UL508, EN12445, EN12453, EN12978

- Datasheet PMP
- Datasheet PMT

**PC50**
- Through beam and Retro-reflective sensors
- Light beam approved to Safety Category 2
- UL325, UL508, EN12445, EN12453, EN12978
- Visible polarized light or Infrared versions

- Datasheet

**MPF**
- Relay output SPST
- 15 m Sensing Distance
- Light beam approved to Safety Category 2
- UL325, UL508, EN12445, EN12453, EN12978

- Datasheet

**PD86 /PD86HNP**
- Polarized Retro-reflective sensors
- Light beam approved to Safety Category 2
- UL325, UL508, EN12445, EN12453, EN12978

- Datasheet PD86
- Datasheet PD86HNP
- Product brochure

**PD98**
- 30 m Sensing Distance
- Light beam approved to Safety Category 2
- UL325, UL508, EN12445, EN12453, EN12978

- Datasheet
ICB12 / ICB18 / ICB30
- Sensing distance from 2 up to 22 mm
- High precision and reliability thanks to the microprocessor technology
- Eco-friendly potting material
- Short-circuit and overload LED indication

WSM / WSS / PB11
- 10 m wireless distance, 15 m for the gate version
- Light beam approved to Safety Category 2
- UL508, EN12445, EN12453, EN12978, FCC, IC
- Replacing wired safety solutions for doors and gates

RVLF
- Compact dimensions 72 x 141 x 139 mm
- Built-in EMI filter
- Single-phase or three-phase supply
- Ease of use, minimal settings
- CE, UL, ROHS approved

Switching power supplies

ICB12
- Datasheet
- Product brochure
- Video

ICB18
- Datasheet
- Product brochure

ICB30
- Datasheet
- Product brochure

Variable speed drives

WSM
- Datasheet
- Product brochure

WSS
- Datasheet
- Product brochure

PB11
- Datasheet
- Product brochure

Inductive proximity sensors

ICB12
- Datasheet
- Product brochure
- Video

ICB18
- Datasheet
- Product brochure

ICB30
- Datasheet
- Product brochure

Inductive proximity sensors

SPD / SPMA / SPDM / SPDC
- Compact dimensions
- High efficiency and wide operating temperature
- Wide output power and voltage
- CE, cULus, cURus, UL1310 Class 2 (up to 90W), ISA 12.12.1 Class 1 Div2, UL121201 Class I Div2, UL62368, TÜV, CCC

WSM / WSS / PB11
- 10 m wireless distance, 15 m for the gate version
- Light beam approved to Safety Category 2
- UL508, EN12445, EN12453, EN12978, FCC, IC
- Replacing wired safety solutions for doors and gates

RVLF
- Compact dimensions 72 x 141 x 139 mm
- Built-in EMI filter
- Single-phase or three-phase supply
- Ease of use, minimal settings
- CE, UL, ROHS approved

Wireless safety system

ICB12
- Datasheet
- Product brochure
- Video

ICB18
- Datasheet
- Product brochure

ICB30
- Datasheet
- Product brochure

Inductive proximity sensors

SPD
- Datasheet
- Product brochure
- Video

SPMA
- Datasheet
- Product brochure

SPDM
- Datasheet
- Product brochure

SPDC
- Datasheet
- Product brochure

Slim industrial relays

RSLM
- Slim size
- High breakdown voltage
- Conforms to VDE 0700, 0631 reinforced insulation
- High sensitivity

ICB12
- Datasheet
- Product brochure
- Video

ICB18
- Datasheet
- Product brochure

ICB30
- Datasheet
- Product brochure

Inductive proximity sensors

RSLM
- Datasheet
- Product brochure

Inductive proximity sensors

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## Gates and barriers

### Photoelectric sensors

**PB10 / MOFT /R + S142**
- Up to 50 m sensing distance
- Light beam approved to Safety Category 2
- UL508, EN12445, EN12453, EN12978
- Up to 3 multiplexed channels

**PD180**
- 30 m sensing distance
- Light beam approved to Safety Category 2
- UL325, UL508, EN12445, EN12453, EN12978
- Input for prolonging battery lifetime

**PD98**
- 30 m sensing distance
- Light beam approved to Safety Category 2
- UL325, UL508, EN12445, EN12453, EN12978

**PD140**
- 60 m sensing distance
- Alignment help: Flashing LEDs, Voltage output and Laser Alignment tool
- ESPE category 2, Performance level d
- UL325, UL508, EN12445, EN12453, EN12978

### Wireless safety system

**WSM / WSS / PB11**
- 10 m wireless distance, 15 m for the gate version
- Light beam approved to Safety Category 2
- UL508, EN12445, EN12453, EN12978, FCC, IC
- Replacing wired safety solutions for doors and gates

### Inductive proximity sensors

**ICB12 / ICB18 / ICB30**
- Sensing distance from 2 up to 22 mm
- High precision and reliability thanks to the microprocessor technology
- Eco-friendly potting material
- Short-circuit and overload LED indication

### Additional Resources

- Datasheet MOFT
- Datasheet S142
- Datasheet PB10 coded
- Datasheet PB10 no-coded
- Datasheet
- Product brochure
- Video
- Datasheet ICB12
- Datasheet ICB18
- Datasheet ICB30
- Overview by product
Loop detectors

- LDP1 / LDP2 / LDD1 / LDD2
- Single loop or dual loop
- DIN rail mounting
- UL and CSA approved
- Multicolour LED for easy setup and intuitive diagnostics
- Selectable fail safe and fail secure mode
- Compact dimensions 72 x 141 x 139 mm
- Built-in EMI filter
- Single-phase or three-phase supply
- Ease of use, minimal settings
- CE, UL, ROHS approved
- Datasheet LDP
- Datasheet LDD
- Video

Variable speed drives

- RVLF
- Compact dimensions
- High efficiency and wide operating temperature
- Wide output power and voltage
- CE, cULus, cURus, UL1310 Class 2 (up to 90W), ISA 12.12.1 Class I Div2, UL121201 Class I Div2, UL62368, TÜV, CCC
- Datasheet

Switching power supplies

- SPD / SPMA / SPDM / SPDC
- Compact dimensions
- High efficiency and wide operating temperature
- Wide output power and voltage
- CE, cULus, cURus, UL1310 Class 2 (up to 90W), ISA 12.12.1 Class I Div2, UL121201 Class I Div2, UL62368, TÜV, CCC
- Datasheet SPD
- Datasheet SPMD
- Product brochure
- Video SPD

Slim industrial relays

- RSLM
- Slim size
- High breakdown voltage
- Conforms to VDE 0700, 0631 reinforced insulation
- High sensitivity
- Datasheet

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**Pedestrian doors**

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**Photoelectric sensors**

**PD112**
- 2.5 m sensing distance
- Light beam approved to Safety Category 2
- UL325, UL508, EN12445, EN12453, EN12978, EN13849-1
- Long detection range on black objects

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**GUARDIAN**
- Easy modifying the motion zone
- 1.8 to 3 m mounting height
- Motion and presence sensor in one unit
- Guardian 2 can be adapted to curved sliding doors
- Vision based detection
- CE, UL325 and TÜV approved

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**Combined motion and presence detectors**

**PE12**
- 15 m sensing distance
- Light beam approved to ESPE 2, PL C
- UL325, UL508, EN12445, EN12453, EN12978, EN13849-1
- Coded sensors available for less crosstalk

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**Switching power supplies**

**SPD / SPMA / SPDM / SPDC**
- Compact dimensions
- High efficiency and wide operating temperature
- Wide output power and voltage
- CE, cULus, cURus, UL1310 Class 2 (up to 90W), ISA 12.12.1 Class I Div2, UL12101 Class I Div2, UL62368, TUV, CCC

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**Slim industrial relays**

**RSLM**
- Slim size
- High breakdown voltage
- Conforms to VDE 0700, 0631 reinforced insulation
- High sensitivity

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**Switching power supplies**

**RSML**
- Slim size
- High breakdown voltage
- Conforms to VDE 0700, 0631 reinforced insulation
- High sensitivity

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**Switching power supplies**

**PD70**
- Emitter with Mute Input for testing the sensor
- 12 m sensing distance
- Light beam approved to Safety Category 2
- UL325, UL508, EN12445, EN12453, EN12978

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**Switching power supplies**

**PE12 coded**
- Datasheet
- Datasheet PE12 coded

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**Switching power supplies**

**PE12 no coded**
- Datasheet
- Datasheet PE12 no coded

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**Switching power supplies**

**Guardian 1**
- Datasheet
- Datasheet Guardian 1
- Product brochure

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**Switching power supplies**

**Guardian 2**
- Datasheet
- Datasheet Guardian 2
- Product brochure

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**Switching power supplies**

**SPD**
- Datasheet
- Datasheet SPD

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**Switching power supplies**

**SPDM**
- Datasheet
- Datasheet SPDM
- Product brochure
- Video SPDM

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**Switching power supplies**

**SPDC**
- Datasheet
- Datasheet SPDC
- Overview by products
- Video SPDC

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**Switching power supplies**

**SPMA**
- Datasheet
- Datasheet SPMA

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**Switching power supplies**

**SPDC**
- Datasheet
- Datasheet SPDC

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**Switching power supplies**

**Overview by products**

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**Switching power supplies**

**Video SPDM**

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**Switching power supplies**

**Video SPDC**
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**Photoelectric sensors**

**PB10**
- 20 m sensing distance
- Light beam approved to Safety Category 2
- UL325, UL508, EN12445, EN12453, EN12978
- Coded sensors available for less crosstalk

**PE12**
- 15 m sensing distance
- Light beam approved to ESPE 2, PL C
- UL325, UL508, EN12445, EN12453, EN12978, EN13849-1
- Coded sensors available for less crosstalk

**PD30**
- Through beam and Retro-reflective sensors
- Light beam approved to Safety Category 2
- UL325, UL508, EN12445, EN12453, EN12978
- Visible polarized light or Infrared versions
- Used for Enhance systems

**Photoelectric sensors**

**PB10**
- Datasheet PB10 coded
- Datasheet PB10 no coded

**PE12**
- Datasheet PE12 coded
- Datasheet PE12 no coded

**PD30**
- Datasheet PD30CNT
- Datasheet PD30CNP
- Product brochure
- Video

**Photoelectric sensors**

**PB10**
- Datasheet PB10 coded
- Datasheet PB10 no coded

**PE12**
- Datasheet PE12 coded
- Datasheet PE12 no coded

**PD30**
- Datasheet PD30CNT
- Datasheet PD30CNP
- Product brochure
- Video

**Inductive proximity sensors**

**ICB12 / ICB18 / ICB30**
- Sensing distance from 2 up to 22 mm
- High precision and reliability thanks to the microprocessor technology
- Eco-friendly potting material
- Short-circuit and overload LED indication

**Switching power supplies**

**SPD / SPMA / SPDM / SPDC**
- Compact dimensions
- High efficiency and wide operating temperature
- Wide output power and voltage
- CE, cULus, cURus, UL1310 Class 2 (up to 90W), ISA 12.12.1 Class I Div2, UL121201 Class I Div2, UL62368, TÜV, CCC

**PC50**
- Through beam and Retro-reflective sensors
- Light beam approved to Safety Category 2
- UL325, UL508, EN12445, EN12453, EN12978
- Visible polarized light or Infrared versions

**ICB12**
- Datasheet ICB12
- Product brochure
- Video

**ICB18**
- Datasheet ICB18
- Product brochure
- Video

**ICB30**
- Datasheet ICB30
- Overview by product

**SPD**
- Datasheet SPD
- Product brochure
- Video

**SPDM**
- Datasheet SPDM
- Product brochure
- Video

**SPDC**
- Datasheet SPDC
- Overview by products
- Video SPDC

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