

VITECTOR

FRABA

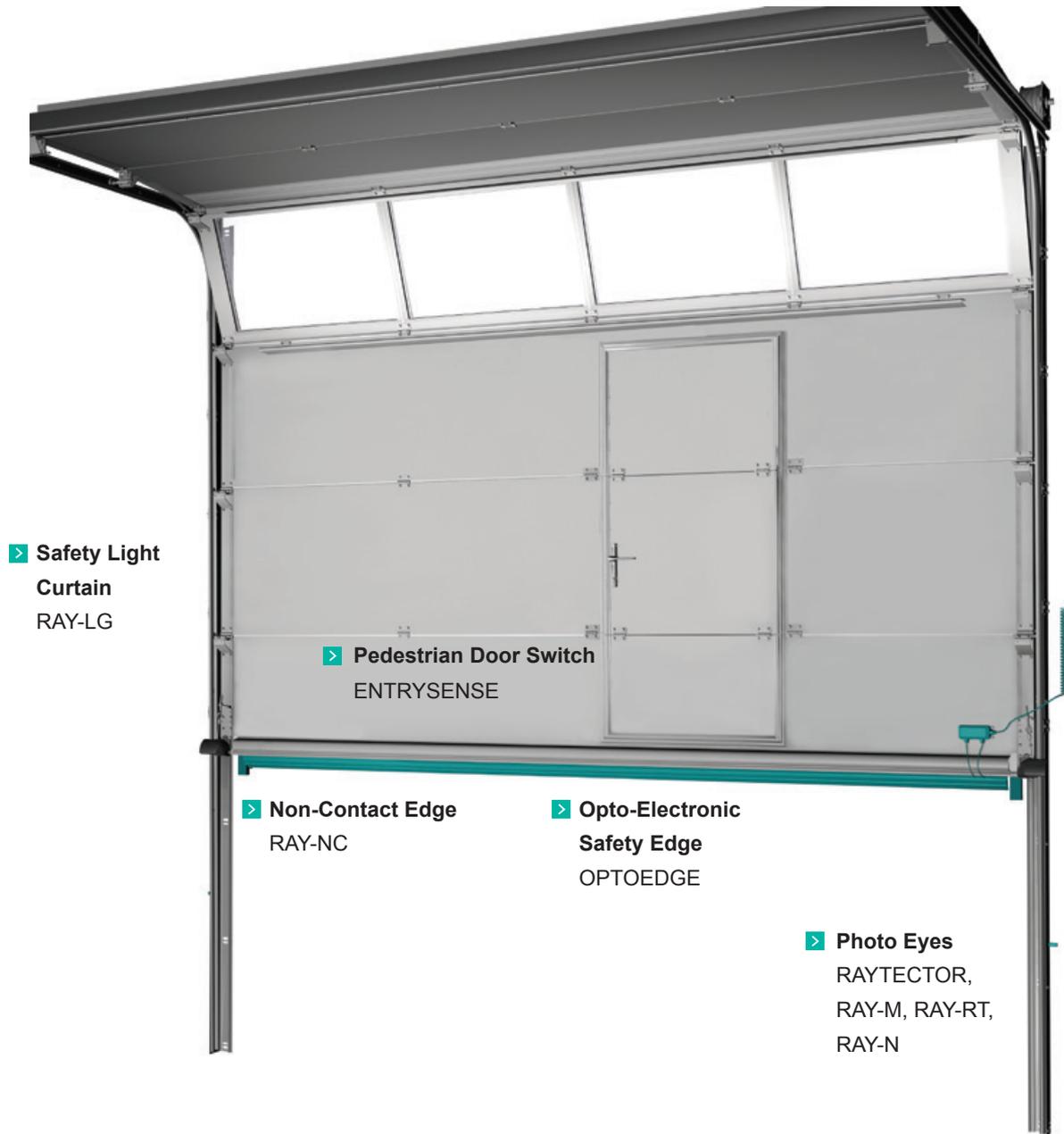
SENSOR SOLUTIONS FOR DOORS



VITECTOR

FRABA

APPLICATION OVERVIEW



➤ **Safety Light
Curtain**
RAY-LG

➤ **Pedestrian Door Switch**
ENTRYSENSE

➤ **Non-Contact Edge**
RAY-NC

➤ **Opto-Electronic
Safety Edge**
OPTOEDGE

➤ **Photo Eyes**
RAYTECTOR,
RAY-M, RAY-RT,
RAY-N

➤ For More Information



Please refer to our website for more information.

www.vitector.com

PRODUCTS



Opto-Electronic Safety Edge OPTOEGDE

> Functionality

OPTOEDGE consists of infrared sensors plugged into the circular chamber of a rubber extrusion profile. By pressing the rubber profile, the hollow chamber collapses and disrupts the light beam. The control unit then converts this signal to a safe relay output which can be directly implemented into a safety loop. To monitor a large amount of edges with only one control unit, OPTOEDGE is available as OPTOCHAIN, allowing it to connect up to four safety edges in series.

> Features

- Certified acc. to EN 12978 and EN ISO 13856-2
- Up to Cat. 4 / PI e acc. to EN ISO 13849-1
- Self-Adjusting Sensor Sensitivity
- Protection Class IP67
- High Reliability
- Assembly without Adhesives or Special Tools
- Resistant Against Environmental Influences
Vibrations and Chemicals

> For More Information



Please refer to our website for more information of our opto-electronic safety edge OPTOEGDE.
www.vitector.com



DiagnOSE and Accessories

> Functionality

The DiagnOSE from VITECTOR supports the technician during installation and maintenance of optical safety edges, showing intensity levels and operation modes. In addition to a wide product range of safety sensors for doors and gates, VITECTOR offers a wide selection of accessories, such as:

> Accessories

- External Control Units
- Junction Boxes
- Coil Cords
- Bumpers
- Rubber Profiles

> For More Information



Please refer to our website for more information of our VITECTOR accessories.
www.vitector.com

PRODUCTS



Pull-In Protection RAYTECTOR

> Functionality

RAYTECTOR is used to safeguard pinch-points on automatic gates and rolling grills. A pull-in protection monitors the shearing-edge and by disrupting the light barrier, the hazardous movement is stopped.

> Features

- Pull-In Protection acc. to EN 12453
- Compatible with all OSE-Interfaces
- Ideal for Retrofitting on Existing Doors
- Optimized Installation by LED-Indication and Mounting Brackets
- Resistant to Ambient Light
- Range 1,5 - 10 m

> For More Information



Please refer to our website for more information of our pull-in protection RAYTECTOR.
www.vitector.com



Non-Contact Door Safety System RAY-NC

> Functionality

RAY-NC is the next generation of Non-Contact Edges. Due to its smart, self-adjusting software RAY-NC adapts to its environment making it work independently from the door design. The sensor reliably detects every type of reflection, which allows retrofitting to any door. It is user friendly and easy to install since it is resistant against vibration and misalignment. The new system travels with the door edge and detects obstacles in the path of the moving door before any physical contact occurs. RAY-NC complies with the requirements of EN12978 and can be installed as an alternative to sensing edges, light curtains and other entrapment protection devices.

> Features

- Non Contact, Means no Force Measurement
- Easy to Retrofit
- Applicable for any Door
- Unaffected by Reflection and Sunlight
- Resistant against Vibration and Misalignment
- Easy Customization for OEM Solutions
- OSE Output

> For More Information



Please refer to our website for more information of our non-contact door safety system RAY-NC.
www.vitector.com

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PRODUCTS



Threaded Photo Eye RAY-M / RAY-M DUO

> Functionality

RAY-M was designed as a light barrier for a small mounting space. It generates the standard OSE signal and can be operated in combination with well known control units. The RAY-M DUO is a double beam light barrier for safeguarding of two parallel areas via one signal. Areas at two different heights, e.g. persons and trucks, can be monitored simultaneously with only one product (solution 'D' acc. to EN 12453 possible).

> Features

- M16 Outside Thread for Easy Mounting
- Accessories to Adjust Angles Available
- Emitting / Receiving Angle $\pm 10^\circ$
- Electrical Characteristics same as OSE
- Range 10 m

> For More Information



Please refer to our website for more information of our threaded photo eye RAY-M.
www.vitector.com



Reflective Photo Eye RAY-RT

> Functionality

RAY-RT reflective light barrier was specifically developed to detect the presence of obstacles in the doorway. The unique system works by blanking out wrong reflections. By means of triangulation, the distance of the object is determined and the unit can stop the door if a close range reflection is received.

> Features

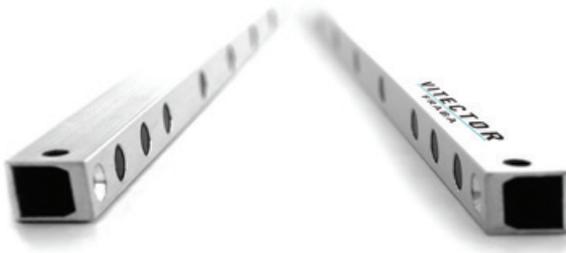
- Polarized Red Light
- Mirror-Safe by Triangulation
- 12 – 24 V Supply Voltage
- Output: 2-Wire, Relay, Transistor
- Pre-Assembled Cable
- Function and Adjustment LED
- Compact In Size: 25 x 87 x 40 mm
- Mountable in the Side Tracks
- 360° Pivoting Adjustment Clamps
- Range 1,5 – 8 m

> For More Information



Please refer to our website for more information of our reflective photo eye RAY-RT.
www.vitector.com

PRODUCTS



Safety Light Curtain RAY-LG

➤ **Functionality**

RAY-LG is an ultra-compact safety light curtain that uses infrared beams to create a monitored field. When the infrared beams are interrupted, the system outputs a signal to the connected door controller. As soon as the detection area is clear again, the output switches to indicate that the area is “clear”.

➤ **Features**

- RAY-LG x5xx: EN 12453 Type E Device Available
- RAY-LG x1xx: High Detection Capability due to Cross Beams
- Safety Cat. 2, PL d acc. to EN ISO 13849-1
- Automatic Door Recognition (“Blanking”) with Partial Door Opening
- Track-Mounting
- Designed for Door Speed up to 2.5 m/s
- Resistant to Dust, Dirt and Water
- IP67 Waterproof Housing
- Increased Immunity from Light and Strobe Interference
- OSE Output or Semiconductor Output Available

➤ **For More Information**



Please refer to our website for more information of our safety light curtain RAY-LG.
www.vitector.com



Monitored Photo Eye RAY-N

➤ **Functionality**

RAY-N is a monitored photo eye using a 2-wire interface. When the signal between transmitter and receiver is interrupted, the sensor sends a signal to the operator to stop and reverse the door. These sensors are long range (14 m), yet designed for price-sensitive applications. Also, the versatility of the threaded design allows for flush mounting (for example, within the guide of a rolling door) or mounting to a bracket for easy installation.

➤ **Features**

- 2-Wire Interface
- Various Mounting Options
- Protection Class IP40 or IP65
- Range 14 m

➤ **For More Information**



Please refer to our website for more information of our monitored photo eye RAY-N.
www.vitector.com

PRODUCTS



Pneumatic Switch DW

> Functionality

DW pneumatic switches are actuated by pressure waves created by any kind of pressure source. When the pneumatic edge hits an obstacle, a pressure wave is created inside of the tube and this wave is recognized by the switch.

> Features

- Cost Efficient
- Works with Positive or Negative Pressure
- Normally Open & Closed Contacts Available
- Factory-Calibrated, Simple Assembly
- Adjustable Sensitivity

> For More Information



Please refer to our website for more information of our Pneumatic Switch DW.

www.vitector.com



Pedestrian Door Switch ENTRYSENSE

> Functionality

Pedestrian doors in automatic gates have to be securely latched for each door operation. The pedestrian door switch ENTRYSENSE fulfils the requirements of safety category 2 / PL c according to EN ISO 13849-1. The sensor is available with voltage interface (ENS-S 1000) or with 8k2-interface (ENS-S 8200).

> Features

- Pedestrian Door Switch acc. to EN 12453
- Cat. 2 / PL c acc. to EN ISO 13849-1
- Non-Tactile Sensor – Maintenance-Free
- Easy Assembly
- Adjustable Switching Distance

> For More Information



Please refer to our website for more information of our Pedestrian Door Switch ENTRYSENSE.

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► FRABA Group

FRABA is a group of enterprises focused on providing advanced products for the motion control and industrial automation markets. VITECTOR is a leading manufacturer and supplier of safety systems for the door and gate market in the USA, Europe, and around the world. The product portfolio of VITECTOR includes optical and pneumatic sensing edges, bumpers, and photo-eye sensors which meet international standards for safety devices. These products have applications in commercial, bus, and train doors as well as production machines. Other FRABA Group subsidiaries include POSITAL which focuses on rotary encoders, inclinometers, and linear sensors.

► History

FRABA was founded by Franz Baumgartner in 1918. Until the 1960s, FRABA's main product was mechanical relays. In 1963 FRABA started selling "brush" absolute encoders and in 1973, one of the

first non-contact, optical absolute rotary encoders was produced in the FRABA offices in Cologne. Today, FRABA companies specialize in innovative products that use advanced technologies to deliver exceptional performance and value.

► Service

To ensure that customers get what they need, VITECTOR's development engineers in the USA, Germany, and Asia have direct responsibility for customer support. In addition, a growing global network of sales partners is providing expert guidance with knowledge about the local requirements.

► Production

VITECTOR products are manufactured in advanced production facilities. The computer-guided, semi-automated production system tracks each device from order, through assembly and testing, to final delivery.

Join Our Network!



www.vitector.com

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