Datalogic has more than 40 years of experience in the sensors and safety sector, developing their first product, a Photoelectric Sensor, in 1972. Today, Datalogic is one of the largest manufacturers of sensor and safety products worldwide.

Datalogic is the market leader in Italy for photoelectric sensors and safety light curtains, ranking among the top-10 manufacturers in Europe by market share.

Datalogic’s Sensors and Safety portfolio solves customer applications in Factory Automation, specializing in Processing and Packaging machinery, and Automated Material Handling Systems related to Manufacturing Industries such as Automotive, Electronics, Pharmaceutical, Food & Beverage, Paper and Printing, Woodworking, Ceramics, Glass, Textiles etc.

* (source: based on VDC 2010 - 2011)
SAFETY PRODUCTS

SAFETY PRODUCT RANGE

Contrast and Luminescence sensors
Area sensors
Maxi and compact sensors for object detection

Dimensional sensors for height/width measurement and object positioning
TOF distance sensors for measurement and object positioning
Safety Light curtains for body protection with Muting function

SAFETY LIGHT CURTAINS

Type 2 and Type 4

SAFETY LIGHT CURTAINS

Controller
Light beam
Module
Relay unit
Accessories

SAFETY LIGHT CURTAINS

High / Low Resolution
FINGER protection
HAND protection
BODY protection
Presence control

SAFETY LIGHT CURTAINS

Base / Extended Functionalities
Auto / Main restart
Exit device monitoring
Muting
Override
Blanking
Cascadable
**SR21/SR23**
High-resolution, very fast response time
Execution of precise positioning, applying and printing of labels, even when integrated in fast machinery and process

**TECHNICAL DATA**
- Slot width 2mm or 5mm and depth 50 mm for normal label or booklet label detection
- Up to 20 µs response time and 25 kHz switching frequency
- IR LED emission for label detection on translucent reel
- Red/Green LED emission for colour mark detection
- Auto-Set for teach-in or dynamic threshold setting
- NPN and PNP outputs with M8 4-poles connector
- Compact and robust metal case with IP65 protection

**APPLICATIONS**
- Packaging and labeling machinery
- Print and apply systems

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**SM-ALL**
The smallest photoelectric sensor with all universal optic functions
Detection of hard to reach objects or in reduced spaces

**TECHNICAL DATA**
- Fixed focus proximity 15, 20, 30, 50 cm
- Retroflex 1.5 m and Polarised 1 m
- Through-beam 2 m
- NPN or PNP version with NO-NC outputs
- 4 wires connection with 2m Cable
- IP 67 Plastic subminiature case

**APPLICATIONS**
- Processing and Packaging machinery
- Electronics assembling
- Small appliance and vending machines

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**TL46**
High resolution, white, Red or RGB emission, very fast response time
Performs precisely in packaging machinery and synchronization based mark detection, even when used in extremely fast processes

**TECHNICAL DATA**
- Operating distance 6-12 mm [80 mm with acc. lens]
- Bright light emission with Red, White, or RGB LED
- Mark/Blind automatic, manual and dynamic setting
- Trimmer or Teach-in setting with 4 digit display version
- Very fast switching frequency 15, 20 or 30 kHz
- Configurable NPN/PNP and 0-5 V analogue output
- Standard metal case with IP67 protection

**APPLICATIONS**
- Packaging and labeling machinery
- Food & Bev., Cosmetic, Pharma industry
- Printing machinery

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**LD46**
UV high power emission LED with high sensitivity
Precise packaging machinery synchronization or material sorting and selection based on luminescent “invisible” mark detection

**TECHNICAL DATA**
- High power UV light emission at 375 nm wavelength
- Operating distance 10-20, 20-40, or 30-50 mm
- Teach-in setting and manual threshold adjustment
- 5 segments bar-graph for sensitivity level indication
- Fast response time 250 µs and switching freq. 2 kHz
- NPN and PNP outputs and 0-5 V analogue output
- Standard metal case with IP67 protection

**APPLICATIONS**
- Packaging and labeling machinery
- Food, Cosmetic and Pharma industries
- Ceramic tiles selection and sorting
- Wood working
### TECHNICAL DATA

- **Compact sensors**
  - **S8**
    - Extremely high performance
    - Solves difficult detection applications (e.g., target objects that have been too small, too fast, too clear, too shiny)

### TECHNICAL DATA

- **Maxi sensors**
  - **S300-PA/PR**
    - Heavy duty, multi-voltage sensors with terminal block and internal relay
    - Durability for integration in outdoor applications and harsh environments

### TECHNICAL DATA

- **S62**
  - 50x50 Standard universal sensor with improved performance and pricing
  - Standardization of the same 50x50 mm housing, mounting holes, installation, wiring, for all optic functions

### APPLICATIONS

- **Processing and Packaging machinery**
- **Food and Beverage Industry**
- **Cosmetic and Pharmaceutical industry**
- **Electronics assembling**

### APPLICATIONS

- **Manufacturing plants**
- **Outdoor or indoor gates control**
- **Packaging end of line, palletizers**
- **Automotive assembly, intra-logistics**

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### TECHNICAL DATA

- **DS2**
  - Dimensional sensor with extended controlled heights
  - Set controls based on height or width measurement and object positioning

### TECHNICAL DATA

- **AS1/DS1**
  - High resolution area sensor
  - Detection and measurement of small objects crossing the area, even in a random positions

### TECHNICAL DATA

- **S85**
  - Long distance sensor based on TOF
  - Accurate controls based on a target object distance and improved cost saving

### APPLICATIONS

- **Processing and Packaging machinery**
- **Conveyor lines, Material Handling**
- **Automotive assembly, intra-logistics**

### APPLICATIONS

- **Secondary Packaging eg. cartoners**
- **Automated vertical warehouses**
- **Automotive assembling eg. paint shop**
- **Non-LFT measurement in logistics**

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### TECHNICAL DATA

- **Time Of Flight (TOF) sensor with Red Laser em.**
  - Detection and measuring range up to 10 or 20m
  - 1mm resolution/repeatability and 7mm accuracy
  - 4-20mA or 0-10V scalable analog output and 2 push-pull digital outputs
  - RS485 serial interface
  - Built-in graphic display and push buttons
  - Standard M12 8-poles connector
  - IP67 compact metal housing

### APPLICATIONS

- **Packaging end of line**
- **Paper reel unwinding control**
- **Automated warehousing**
- **Trans-elevator and crane positioning**
- **Automotive assembling lines**
- **Non-LFT measurement in logistics**
Distance measurement
Accurate positioning or distance control, immune to object color or light reflection

**TECHNICAL DATA**
- M18 background suppression with range 5 - 50 cm and through beam up to 60 cm
- M30 with range 0.2 - 2 m and min object 10 mm
- M50 with range 0.2 - 8 m and min object 20 mm
- Teach-in push-button and remote teach input
- NPN and PNP switching outputs for object detection
- 0-10 V or 4 – 20 mA analog out for distance
- High resolution to 1 mm or 0.1% of distance range

**APPLICATIONS**
- Packaging machinery
- Beverage and bottling plants
- Paper reel unwinding control

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**Ultrasonic sensor (US)**
- Short barrel and IP69K protection plastic or stainless steel case
- Space and cost saving, performs in harsh environments including in the presence of water-jets and aggressive cleaning agents

**TECHNICAL DATA**
- Diffuse proximity 10, 35, or 100 cm, Fix focus 5 cm
- Background suppression 60 - 120 mm
- Retrofitflex 5 m, Polarisied 4 m, for Transparent 1 m
- Through-beam 20 m
- L/D input, 2m Cable, M12 connector, or pig-tail vers.
- IP 69K Plastic or Stainless steel case
- Johnson Diversey certification for industrial detergents

**APPLICATIONS**
- Processing and packaging machinery
- Assembling and conveyor lines

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**Inductive proximity (IS)**
- Non-contact detection
- Cost effective and reliable detection of any metal part

**TECHNICAL DATA**
- Standard proximity M4, M5, M8, M12, M18, M30
- Double range (i.e. M12 4mm, M18 14mm, M30 20mm)
- Unshielded or shielded models for flush mounting
- Nickel brass or Stainless steel short and long housing
- Ecolab and Diversey certification industrial detergents
- Multi-voltage, Metal face, Weld field immune models
- NPN or PNP output with 2m cable or M8 connector

**APPLICATIONS**
- Processing and packaging machinery
- Assembling and conveyor lines
- Automatic material handling
- Automated warehousing

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**Fiber Optic Amplifiers (S7)**
- High resolution, fiber optic sensor detection of small objects through fiber optic cable, even in confined spaces and high temperature environments. Installation of the sensor far from detection object

**TECHNICAL DATA**
- Diffuse fiber optics 25, 50, 100 mm
- Through-beam fiber optics 75, 150, 300 mm
- Red or White LED emission for contrast detection
- 4-digit display and teach-in or trimmer setting
- 10 bits (1024 points) or 12 bits (4096 points) resolution
- Switching Freq. 1kHz, Fast 5kHz, Ultra-fast 10kHz
- NPN or PNP output with 2m cable or M8 connector

**APPLICATIONS**
- Processing and packaging machinery
- Electronics assembling
- Pharmaceutical industry
**SAFETY PRODUCTS**

### SG2/SG4 BASE

**Finger and hand presence safety detection with basic functions**
- High reliability, easy installation and alignment, improved cost saving

**TECHNICAL DATA**
- Safety Type 2 (P≤d, SIL2); Safety Type 4 (P≤e, SIL3)
- Resolution Finger 14mm; Hand 30mm; Pres. 50/90mm
- Controlled heights from 150 to 1800mm (n x 150mm)
- Operating distance: Finger 6m; Hand 19m; Pres. 9/19m
- Auto/Manual restart; EDM; Anti-interference coding
- Easy and cost effective standard M12 5-pole connector

**APPLICATIONS**
- Automatic machinery
- Metalworking, Woodworking
- Manufacturing (textile, ceramics, etc)
- Material handling, assembling lines

### SG4 EXTENDED

**Finger and hand safety detection with programmable functions**
- Extended flexibility that fits a diverse range of machine needs, with remote configuration or monitoring and configuration cloning features

**TECHNICAL DATA**
- Programmable Safety Light Curtain Type 4 (P≤e, SIL3)
- Resolution: Finger 14 mm; Hand 30 mm
- Controlled heights from 300 to 1800mm (n x 150mm)
- Operating distance: Finger 7m; Hand 20m
- Compact, No dead zone; up to 3 cascadable units
- Fully programmable: Auto/Man restart, EDM, Coding, Muting (T/L, total/partial, with/without timeout, etc.), Fixed/floating blanking; reduced resolution function
- Ethernet Port, SG Dongle and Graphic User Interface

**APPLICATIONS**
- Processing and packaging machines
- Automotive, metalworking, presses
- Manufacturing assembly lines

### SG BODY COMPACT

**Body safety protection and perimeter access control**
- High reliability, easy installation and alignment, improved cost savings

**TECHNICAL DATA**
- 35x40 mm standard compact profile
- 2, 3, 4 Beams for Body protection and access control
- Controlled heights 500, 800, 900, 1200 mm
- Long operating distance up to 50 m
- Dip-switch configuration of Auto/Man, EDM, Coding
- Muting version with L or T integrated arms and lamp
- Easy and cost effective standard M12 connectors

**APPLICATIONS**
- Light Palletizer/de-palletizers
- Conveyor lines
- Automated warehousing
- Manufacturing lines

### SG BODY BIG

**Body safety protection and perimeter access control**
- Robust product with high reliability and easy installation

**TECHNICAL DATA**
- 52x56mm profile with improved mechanical resistance
- 2, 3, 4 Beams for Body protection and access control
- Controlled heights 500, 800, 900, 1200mm
- Longer operating distance 60m
- Dip-switch configuration of Auto/Man, EDM, Coding
- Muting version with integrated arms and lamp
- Reflector version with active unit and passive unit

**APPLICATIONS**
- Palletizing/de-palletizing areas
- Automotive, robotized lines
- Automated storage and retrieval
- Automated warehousing
- AGV and Forklift area protection

### SG BWs

**Body safety protection and perimeter access control**
- Cost effective, Flexible safety layout and system configuration

**TECHNICAL DATA**
- Configurable safety control units type 4 (P≤e, SIL3)
- Dip-switch configuration of Auto/Man restart, EDM
- SG-BWS-T4-MT with single or double muting function
- Controlling 2 light curtains or 1-4 safety light beams:
  - 5S operating distance 0-8m, Laser 0-40m
  - 5300 operating distance 0-40m
  - Double PNP output or SPST Relay 250Vac/24Vdc 5A

**APPLICATIONS**
- Light Palletizer/de-palletizers
- Conveyor lines
- Automated warehousing
- Manufacturing lines

### SAFETY ACCESSORIES

- Mirrors
- Protective stands
- Protective shields
- Safety modules
- Safety relays
- Muting boxes
- Muting arms
- Muting lamps
- Laser pointer
- Brackets
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