Program Overview

CONTRINEX
SENSORS SAFETY RFID

IO-Link
Universal · Smart · Easy

LARGEST SELECTION OF IO-LINK SENSORS IN THE INDUSTRY *

A Swiss Company

At a glance

- ✓ Technology leading manufacturer of inductive and photoelectric sensors as well as Safety and RFID systems
- ✓ World market leader for miniature sensors, sensors with long operating distances and devices for particularly demanding operating conditions (all-metal, high-pressure and high-temperature resistant sensors)
- ✓ Represented in over 60 countries worldwide, headquarters in Switzerland
- ✓ 8000 products

Contrinex Headquarters, Switzerland

INTELLIGENT SENSORS FOR THE 4TH INDUSTRIAL REVOLUTION: INDUSTRY 4.0
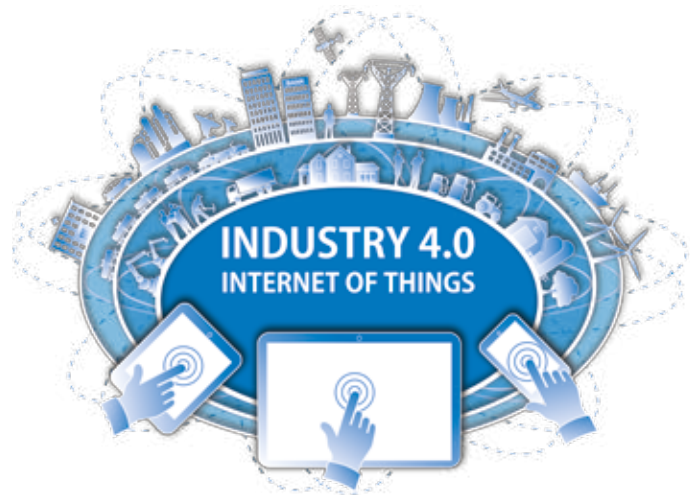
Fit for the future with IO-Link

Intelligent sensors are the fundamental building blocks of modern smart factories. They enable sensor-supported production resources (machines, robots, etc.) to configure, control, manage and optimize themselves. Precise, reliable sensor data is now more essential than ever.

Sensors from Contrinex, the leader in intelligent sensor technology, ensure excellent data quality. To communicate that data, all Contrinex inductive and photoelectric ASIC sensors will be equipped with IO-Link as standard. Customers use either the sensor's binary PNP output or its intelligent IO-Link interface. Both are available in one and the same device.

Another advantage is the fact that, with Contrinex sensors, there is no extra charge for IO-Link. This makes them not only quick and simple to install, but also highly economic.

As the first standardized IO technology worldwide (IEC 61131-9) for communication with sensors and actuators, IO-Link is crucial to the 4th Industrial Revolution. By installing Contrinex ASIC sensors with IO-Link, users can make themselves fit for the future.

CONTRINEX PRODUCT RANGES

For special products see Contrinex catalog, downloadable from our
website: www.contrinex.com

IO-LINK FUNCTIONALITY* WITH INDUCTIVE SENSORS

① Data monitoring:

Switching state is monitored continuously. This not only monitors the signal itself, but also the state at 80% of the switching distance. One can therefore ensure that the sensor is not working at the limit of its specifications.

② Diagnosis:

The operating state of the sensor is checked. In case of wire break, under-voltage, LC oscillator break or installation of the wrong sensor, information is provided directly through IO-Link to enable fast repair, maintenance and replacement.

③ NO/NC selection:

The output switching mode can be selected as NO or NC. A single sensor type is configurable for the various needs of an application. This helps reduce the number of different sensor types required in stock.

④ Switching timer:

The timing of output switching can be configured. Depending on the needs of an application, output switching can be delayed or the duration stretched through programming.

⑤ Detection counter:

Detection events are counted. By registering the number of detections, it is possible to calculate the speed or number of parts. The counter can be reset by means of a unique IO-Link message.

⑥ Temperature:

The internal temperature of the sensor is measured continuously, which provides an indication about the ambient temperature in the application. Moreover, the maximum temperature measured is saved for diagnosis and preventive maintenance purposes.

* Functionalities may vary depending on series and sensor type

①	②	③	④
DATA MONITORING	DIAGNOSIS	NO/NC SELECTION	DELAY STRETCH

⑤	⑥
DETECTION COUNTER	TEMPERATURE
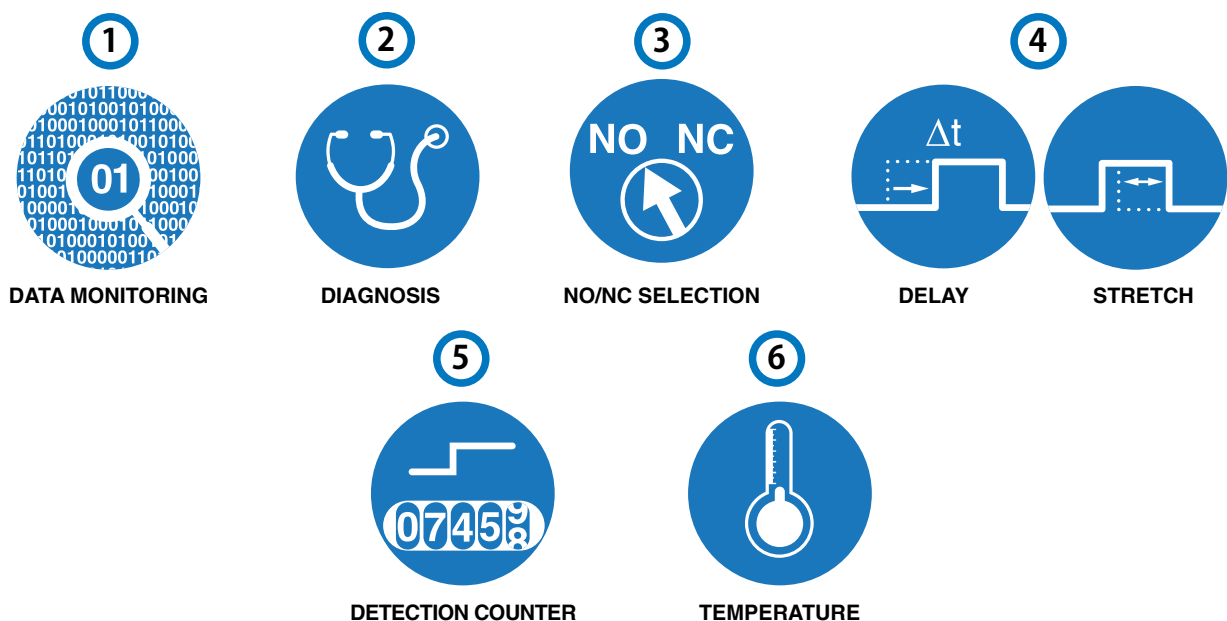
IO-LINK FUNCTIONALITY* WITH PHOTOELECTRIC SENSORS

(1) Data monitoring:

Detection status is monitored and continuously transmitted through IO-Link process data. This data contains both the detection state and the stability of detection (sufficient detection margin). It is possible, therefore, to determine whether the sensor is working too close to its detection threshold, for example due to window contamination.

(2) Diagnosis:

The operating state of the sensor is checked. In case of wire break, under-voltage, disturbances on the receiver, sensor malfunction or installation of the wrong sensor, information is provided directly through IO-Link to enable fast repair, maintenance and replacement.

(3) Sensitivity and teach:

The sensitivity of the sensor can be adjusted remotely by changing the threshold. Alternatively, the teach function can be used to adapt the threshold to the application. Calibrated sensing ranges ensure easy sensor replacement by uploading the existing sensitivity to the replacement sensor.

(4) Light-on/Dark-on selection:

The output switching mode can be selected as light-on or dark-on. A single sensor type is configurable for the various needs of an application. This helps reduce the number of different sensor types required in stock.

(5) Switching timer:

The timing of output switching can be configured. Depending on the needs of an application, output switching can be delayed or the duration stretched.

(6) Sensor mode:

3 different modes are selectable depending on the application needs: "Normal", "Fast" and "Fine". "Normal" mode is a good balance of speed and precision. In "Fast" mode, speed is higher and in "Fine" mode precision is higher.

(7) Sequence selection:

For cross-talk immunity with through-beam sensors, up to 9 different emitting sequences can be selected to pair the emitter with the receiver.

(8) Detection counter:

Detection events are counted. By registering the number of detections, it is possible to calculate the speed or number of parts. The counter can be reset by means of a unique IO-Link message.

(9) Temperature:

The internal temperature of the sensor is measured continuously, which provides an indication about the ambient temperature in the application. Moreover, the maximum temperature measured is saved for diagnosis and preventive maintenance purposes.

* Functionalities may vary depending on series and sensor type

(1) DATA MONITORING

(2) DIAGNOSIS

(3) SENSITIVITY AND TEACH

(4) LIGHT-ON/DARK-ON SELECTION

(5) DELAY   **STRETCH**

(6) SENSOR MODE

(7) SEQUENCE SELECTION

(8) DETECTION COUNTER
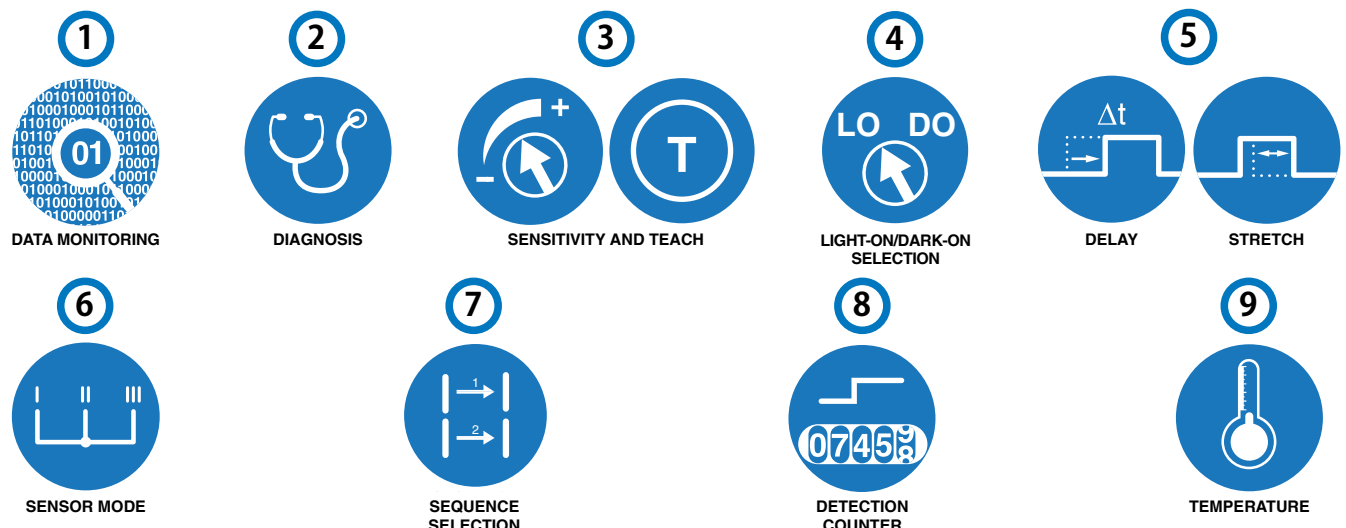
(9) TEMPERATURE

SENSORS

INDUCTIVE

EXCELLENCE IN NORMAL ENVIRONMENTS
BASIC

### KEY ADVANTAGES

- ✓ Exceptional price/performance ratio
- ✓ Excellent accuracy
- ✓ Outstanding switching-point stability due to digital temperature compensation
- ✓ Vibration and shock resistant
- ✓ Long operating distances
- ✓ Special material detection (e.g. carbon fiber)

INDUSTRIES

Textiles, green energy, machine tools, automotive manufacturing, logistics, packaging machines
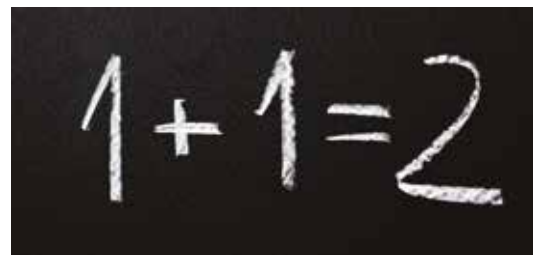
◈ IO-Link   **◈ IO-Link = coming soon**

Housing size (s_n mm)	∅ 6.5 mm	M8	C8	M12	M18	M30	C44
Classics	1.5 ... 2	1.5 ... 4	1.5 ... 2	2 ... 8	5 ... 12	10 ... 25	15 ... 40
Extra Distance	3	3 ... 6	3	6 ... 10	12 ... 20	22 ... 40	-
Full Inox	-	3	-	3	5	10	-

Textiles

Green energy

INDUCTIVE

FULL FUNCTIONALITY, SMALLEST SIZE
MINIATURE

KEY ADVANTAGES

- ✓ Smallest self-contained inductive sensors with IO-Link on the market
- ✓ Ideal for mounting where space is limited
- ✓ Outstanding temperature stability from -25°C (-13°F) to +70°C (+158°F)
- ✓ High switching frequency up to 8000 Hz
- ✓ Light weight of the sensor
- ✓ Electronics vacuum potted for optimum long-term reliability under high stress

INDUSTRIES

Micromechanics, robotics, machine tools, automation equipment, special purpose machines

◈ IO-Link   **◈ IO-Link = coming soon**

Housing size (s_n mm)	∅ 3 mm	M4	∅ 4 mm	M5	C5
Classics	0.6 ... 1	0.6 ... 1	0.8 ... 1.5	0.8 ... 1.5	0.8 ... 1.5
Extra Distance	-	-	2.5	2.5	-
Full Inox	-	-	3	3	-

Robotics

Linear drive technology

INDUCTIVE

EXTREME DURABILITY IN HARSH ENVIRONMENTS

EXTREME

KEY ADVANTAGES

- ✓ One-piece stainless-steel housing
- ✓ Mechanically and chemically extremely robust
- ✓ Corrosion resistant
- ✓ IP 68 and IP 69K, sea-water resistant
- ✓ Pressure resistant up to 100 bar (1451 psi)
- ✓ Factor 1 on steel and aluminum

INDUSTRIES

Automotive manufacturing, mobile equipment, packaging, machine tools

Machine tools

Mobile equipment

IO-Link

Housing size (s_n mm)	M8	M12	M18	M30	C23
Full Inox	3 ... 6	2 ... 15	5 ... 20	20 ... 40	7

INDUCTIVE

PRESSURE RESISTANT UP TO 200 BAR (2901 PSI)

EXTRA PRESSURE

KEY ADVANTAGES

- ✓ Pressure resistant up to 200 bar (2901 psi)
- ✓ Mechanically and chemically rugged
- ✓ Impervious: IP 68
- ✓ Gas-tight sensing face
- ✓ Miniature devices

INDUSTRIES

Pneumatics, lubrication systems, pumps, valves

Micromechanics

Pump and valve control

IO-Link

Housing size (s_n mm)	∅ 3 mm	M5	∅ 6.5 mm
Classics	0.8	0.6	-
Extra Distance	-	-	2.5

SENSORS

INDUCTIVE

PRESSURE RESISTANT UP TO 500 BAR (7255 PSI)

HIGH PRESSURE

KEY ADVANTAGES

- ✓ Highest operating (500 bar / 7255 psi) and peak pressure (1000 bar / 14510 psi) on the market
- ✓ Resistant to pressure cycles / 50 times longer lifetime under pressure than the market standard
- ✓ Gas-tight sensing face
- ✓ Large temperature range -25°C (-13°F) ... +100°C (+212°F)

INDUSTRIES

Hydraulic and fluid power, concrete pumps, injection molding machines

Hydraulic cylinders with sensors

Concrete pumps

◉ **IO**-Link = coming soon

Housing size (s_n mm)	M5 / P5	M8 / P8	M12 / P12	M14 / P20
Extra Distance	1	1.5	1.5 ... 2.5	3
Full Inox	-	-	1.5	-

INDUCTIVE

TEMPERATURE RESISTANT UP TO +120°C (+248°F)

EXTRA TEMPERATURE

KEY ADVANTAGES

- ✓ Temperature resistant up to +120°C (+248°F)
- ✓ Excellent long term reliability
- ✓ Outstanding accuracy

Aerospace

Automotive manufacturing industry

INDUSTRIES

Machine tools, green industry, aerospace, automotive manufacturing

◉ **IO**-Link

Housing size (s_n mm)	M5	M8	M12	M18
Classics	0.8	4	2 ... 4	5

INDUCTIVE

TEMPERATURE RESISTANT UP TO +230°C (446°F)

HIGH TEMPERATURE

KEY ADVANTAGES

- ✓ Models with external electronics for temperatures of up to +230°C (+446°F)
- ✓ Models with integrated electronics for temperatures of up to +180°C (+356°F)
- ✓ Excellent long term reliability
- ✓ Silicone free versions

Bakery equipment

Paintshop in automotive industry

INDUSTRIES

Paintshops, surface treatment, bakery equipment

Housing size (s$_n$ mm)	M8	M12	M18	M30	M50
Classics	2	4	8	10	25

INDUCTIVE

ECOLAB APPROVED FOR HARSHEST CLEANING PROCESSES

WASHDOWN

KEY ADVANTAGES

- ✓ Corrosion resistant
- ✓ Food safe (FDA and Ecolab approved)
- ✓ Version with metal housing and PPS sensing face (Classics)
- ✓ Versions with one-piece full-metal housing (Full Inox)
- ✓ IP 68 / IP 69K protection
- ✓ Waterproof sensor, sea-water resistant
- ✓ Pressure resistant up to 80 bar (1161 psi)

Food processing

Marine applications

INDUSTRIES

Food and beverage, pharmaceutical industry, offshore and marine applications, industrial cleaning systems

◉ **IO**-Link

Housing size (s$_n$ mm)	M12	M18	M30
Full Inox	6 ... 10	10 ... 20	20 ... 40
Classics	2	-	-

SENSORS

ANALOG OUTPUT FOR DISTANCE CONTROL

ANALOG OUTPUT

KEY ADVANTAGES

- ✓ Longest sensing ranges
- ✓ Best temperature stability
- ✓ Excellent repeat accuracy
- ✓ Resolution in μm range
- ✓ Current or voltage output

INDUSTRIES

Machine tools, printing, metal sorting, quality control, vibration monitoring

Housing size (s_n mm)	C8	M8	M12	M18	M30
Extra Distance	0 ... 4	0 ... 4	0 ... 6	0 ... 20	0 ... 40

Position control

Machine tools

INDUCTIVE

DURABLE AND RELIABLE IN WELDING CELLS

WELD-IMMUNE

KEY ADVANTAGES

- ✓ Resistant to electromagnetic fields of up to 40 millitesla
- ✓ Extremely robust
- ✓ Easy to clean – even using harsh methods
- ✓ No false switching caused by metal dust or chips
- ✓ Factor 1 on steel and aluminum
- ✓ No extra protection needed
- ✓ Long operating distances

INDUSTRIES

Automotive manufacturing, welding equipment

Housing size (s_n mm)	M8	M12	M18
Full Inox	3	6	10

Automotive manufacturing industry

Welding equipment

PHOTOELECTRIC

THE SMALLEST ON THE MARKET
CYLINDRICAL SUBMINIATURE

KEY ADVANTAGES

- ✓ Ø 4 and M5 housings for target detection in limited spaces
- ✓ Rugged metal housing
- ✓ Accurate target detection due to cylindrical light beam
- ✓ Rugged sapphire glass or glass sensing face, scratch and chemically resistant
- ✓ Shock and vibration resistant due to fully vacuum potted electronics
- ✓ High system reserves (excess gain)

INDUSTRIES

Precision engineering, semiconductors, electronics, vending machines, miniature conveyors, grippers

    ⬙ **IO**-Link = coming soon

Housing size $(s_n$ mm)	∅ 4 mm	M5
Diffuse	10 / 20 / 50	10 / 20 / 50
Through-beam	250	250

Precision processes

Electronics

PHOTOELECTRIC

M12 STANDARD SIZE FOR MULTIPLE USES
CYLINDRICAL MINIATURE

KEY ADVANTAGES

- ✓ M12 miniature sensor series
- ✓ Rugged metal housing
- ✓ Accurate and speed independent target detection; response time 0.5 msec (laser: 0.1 msec)
- ✓ Shock and vibration resistant due to fully vacuum potted electronics
- ✓ High system reserves (excess gain)
- ✓ Easy adjustment (due to visible red light)
- ✓ Laser sensor (protection class 2)

INDUSTRIES

Automotive manufacturing, machine tools, logistics, textiles, green energy, packaging, filling machines

Housing size $(s_n$ mm)	M12	M12 Laser
Diffuse	300	-
Reflex	1500	-
Through-beam	10,000	50,000

Packaging

Textiles

SENSORS

PHOTOELECTRIC

M18 STANDARD SIZE, INCLUDING 90° SENSING
CYLINDRICAL SMALL

KEY ADVANTAGES

Metal version:

✓ Models for lateral sensing
✓ Rugged metal housing
✓ Shock and vibration resistant due to fully vacuum potted electronics
✓ Laser sensor (protection class 2)

Plastic version:

✓ Short housing: 18 x 33 mm (cable) / 18 x 37 mm (connector)
✓ Special optics with Pinpoint LED for excellent background suppression
✓ IO-Link on all PNP sensors
✓ Easy flush-mounting
✓ Special accessory for right-angle emission

INDUSTRIES

Automotive manufacturing, machine tools, logistics, textiles, green energy, packaging, filling machines, aerospace

Textiles

Filling machines

◈ **IO**-Link		◈ **IO**-Link = coming soon	

Housing size (s$_n$ mm)	M18 Metal	M18 Plastic	M18 Laser
Diffuse	600	1200	250 / 600
Reflex	2000	7000	-
Through-beam	20,000	30,000	50,000
Background supp.	120	200	-

PHOTOELECTRIC

SAVE SPACE, KEEP PERFORMANCE
CUBIC SUBMINIATURE

KEY ADVANTAGES

C12 series:

✓ Plastic housing 13 x 21/27 x 7 mm
✓ Red pinpoint LED, small visible light spot
✓ Excellent bachground suppression up to 120 mm
✓ Long sensing ranges

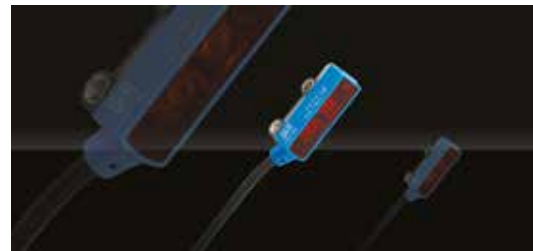**0507 series:**

✓ Rugged metal housing 5x7x40 mm
✓ Accurate target detection due to cylindrical light beam
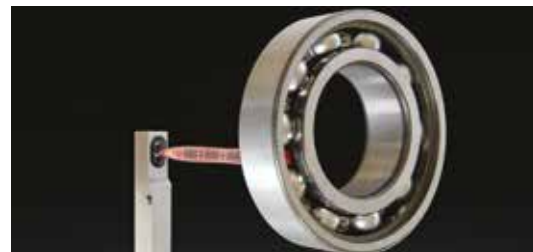✓ Rugged sapphire-glass sensing face scratch and chemically resistant

Precision processes

Vending machines

INDUSTRIES

Precision engineering, semiconductors, electronics, vending machines

Housing size (s$_n$ mm)	□ 5 x 7 x 40 mm	□ 13 x 21/27 x 7 mm
Diffuse	20 / 50 / 90	-
Reflex	-	3000
Through-beam	-	2000
Background suppression	-	15 / 30 / 120

POWERFUL SENSORS IN MINIATURE HOUSING
CUBIC MINIATURE

KEY ADVANTAGES

C23 Distance measuring sensors:
- ✓ IP 69K housing
- ✓ High precision and repeatability
- ✓ Settable analog range for optimum distance measurement

C23 series:
- ✓ Long sensing ranges
- ✓ Special optics with Pinpoint LED for excellent background suppression
- ✓ Ecolab
- ✓ IO-Link on all PNP sensors

INDUSTRIES

Packaging, logistics, filling machines

■ ⊗ **IO**-Link

Housing size (s_n mm)	☐ 20 x 34 x 12 mm	☐ 20 x 30 x 16 mm
Diffuse	-	1500
Reflex	-	8000
Through-beam	-	30,000
Background suppression	-	300
Distance	20 ... 80 / 30 ... 200	-
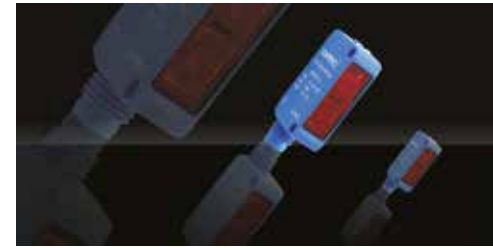
Conveyor solutions

Logistics

EXCELLENT VALUE FOR DEMANDING APPLICATIONS
CUBIC SMALL

KEY ADVANTAGES

- ✓ Small sensor series for peak performance
- ✓ Special optics for excellent background suppression
- ✓ Color sensor
- ✓ Contrast sensor with IO-Link
- ✓ Reflex sensor with auto-collimation
- ✓ Ecolab

INDUSTRIES

Logistics, packaging, filling machines, printing, quality control, sorting processes, food and tobacco, wood processing machines

■ ⊗ **IO**-Link

Housing size (s_n mm)	☐ 40 x 50 x 15 mm
Diffuse	1200
Reflex	4000 / 8000
Through-beam	50,000
Background suppression	500
Color (diffuse)	30 ... 40
Contrast (diffuse)	12

Sorting processes

Printing

SENSORS

PHOTOELECTRIC

TOP QUALITY, RUGGED AND COST-EFFECTIVE

CUBIC COMPACT

KEY ADVANTAGES

- ✓ Distance measurement up to 5000 mm
- ✓ High precision and repeatability
- ✓ Settable analog range for optimum distance measurement
- ✓ Adjustable digital output for window of acceptance
- ✓ Background suppression variant with 2 outputs
- ✓ IP 69K housing
- ✓ Ecolab
- ✓ Type available with IO-Link

INDUSTRIES

Automotive manufacturing, machine tools, logistics, textiles, green energy, packaging, filling machines

◉ IO-Link

Housing size (s$_n$ mm)	□ 50 x 50 x 23 mm
Distance measuring	100 ... 5000
Background suppression	0 ... 5000
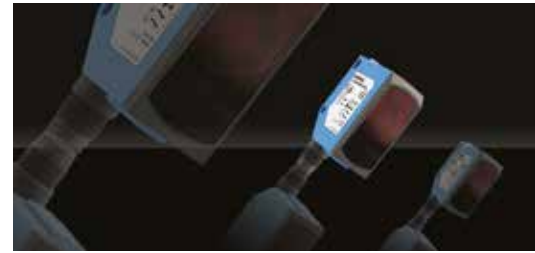
Packaging

Logistics

PHOTOELECTRIC

FIBER-OPTIC AMPLIFIERS, FIBERS

HIGHLIGHTS

- ✓ Wide range of fiber-optic amplifiers, including IO-Link
- ✓ Fiber-optic solutions for the most demanding environments
- ✓ Wide range of synthetic and glass fibers available

INDUSTRIES

Precision engineering, printed circuit board production, electronics, handling systems, vending machines, special machinery, quality control

◉ IO-Link

Housing size (s$_n$ mm)	□ 30 x 30 x 15 mm	□ 31 x 60 x 10 mm	□ 40 x 40 x 19 mm
Fiber-optic amplifier	60 / 120	200	150

Robotics

Printed circuit board production

FAST DETECTION, COUNTING AND MEASUREMENT

LIGHT GRIDS

KEY ADVANTAGES

Detection grids:
- ✓ Fast response time 0.8 ms ... 4.8 ms
- ✓ Ideal for detection and counting of even the smallest objects
- ✓ Resolution: 0.9 mm, 2 mm, 4 mm, 8 mm or 25 mm
- ✓ Detection height: up to 2010 mm

Measurement grids:
- ✓ Ideal for position and dimension control
- ✓ Resolution: 5 mm or 12 mm
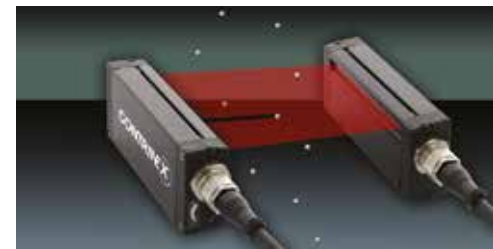- ✓ Analog output 0-10 V or 4-20 mA
- ✓ Measurement height: up to 1418 mm

INDUSTRIES

Packaging, laundry industry, small parts production, pharmaceutical industry, woodworking industry

Housing size (s_n mm)	☐ 40 mm x 20.5 mm x height
Detection grids	100 ... 8000
Measurement grids	300 ... 4000
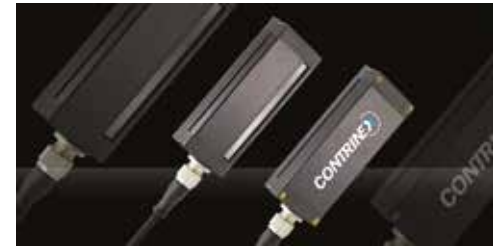
Counting of small objects

Packaging

PRACTICAL, PORTABLE, RECHARGEABLE

SENSOR TESTER

KEY ADVANTAGES

- ✓ Up to 100 mA sensor current
- ✓ Adapted to PNP, NPN and push-pull outputs
- ✓ Rechargeable LiPo battery 9V 600 mAh (included)
- ✓ Battery life longer than 2 hours at 50 mA current supply
- ✓ Micro-USB interface to recharge battery with universal mobile phone charger

SENSORS

ULTRASONIC SENSORS

PRECISION ULTRASONIC SENSORS WITH IO-LINK

HIGHLIGHTS

✓ Precise control of position, distance, height and level
✓ Sensing ranges up to 6000 mm
✓ Diffuse/background suppression and reflex types
✓ Robust housings in food-grade stainless steel or plastic, IP 67
✓ M18 in standard or short housing
   M30 in standard housing or with large front
✓ Various output types
✓ IO-Link interface

INDUSTRIES

Packaging, food, pharmaceuticals, agriculture

Packaging industry

Food industry

■ ◆ IO-Link

Operating principle (s_n mm)	With fore/background suppression	With analog output	Reflex
M18 short housing*	40...300/80...1200	80...1200	40...300/80...1200
M18 standard housing*	100...900/200...2000	100...900/200...2000	100...900/200...2000
M30 standard housing*	200...2500/350...3500	200...2500/350...3500	-
M30 large front**	350 ... 6000	350 ... 6000	-

* Metal or plastic housing   ** Plastic housing

CAPACITIVE SENSORS

COST-EFFECTIVE WITH ANY TARGET MATERIAL

HIGHLIGHTS

✓ Detection of virtually all target materials
✓ Easy adjustment with potentiometer and LED
✓ Detection through non-metallic pipes and containers
✓ Sensors for use in harsh chemical environments
✓ Reliable level control of sticky and viscous materials
✓ Sensors with hygienic, FDA-compliant, PTFE housings

Packaging and beverage

Food industry

INDUSTRIES

Plastics, food, pharmaceuticals, agriculture

Housing size (s_n mm)	M12	M18	M30
Basic	2	5 ... 8	10 ... 15
High performance	2 ... 4	5 ... 8	10 ... 15

RFID

TOTAL TRACKING - HIGH AND LOW FREQUENCY SOLUTIONS

HIGHLIGHTS

CONTRINET

- ✓ Powerful RS485 network for low and high frequency systems
- ✓ LF and HF read/write modules can be mixed on the same network
- ✓ Licence-free Contrinex communication protocol

LF TECHNOLOGY FOR DIFFICULT OPERATING CONDITIONS

- ✓ Low frequency technology
- ✓ Mechanically and chemically resistant all-metal tags and read/write modules
- ✓ Tags embeddable in metal
- ✓ For operating temperatures up to +125°C (+257°F)
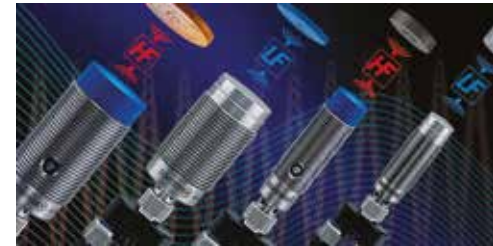
HF TECHNOLOGY (13.56 MHz)

- ✓ ISO 15693 compliant
- ✓ Networking of up to 253 read/write modules
- ✓ Net management via USB possible
- ✓ IO-Link read/write modules
- ✓ Handheld read/write devices
- ✓ Embeddable tags (even in metal)
- ✓ High temperature resistant tags up to +250°C (+482°F)
- ✓ Tag with 2 kByte memory

INDUSTRIES

Automotive manufacturing, machine tools, logistics, textiles, green energy, packaging, filling machines

IO-Link

	LOW FREQUENCY	HIGH FREQUENCY
Plastic tag	✓	✓
Metallic tag	✓	
Plastic head read/write module	✓	✓
Metallic head read/write module	✓	
Handheld read/write device	✓	✓
RS485 read/write module	✓	✓
IO-Link read/write module		✓
USB read/write module	✓	✓
PROFIBUS-DP interface	✓	✓
DeviceNet interface	✓	✓
EtherNet/IP interface	✓	✓
PROFInet IO interface	✓	✓
EtherCAT interface	✓	✓
POWERLINK interface	✓	✓
TCP/IP interface	✓	✓
USB interface	✓	✓

Full-metal tag, LF

Low-cost synthetic tag, LF

High temperature (180°C/356°F) resistant tag, HF, embeddable in metal

Very high temperature (250°C/482°F) resistant tag, HF

SAFETY

TYPE 2 LIGHT CURTAIN IN SLIM HOUSING

Strong, slim light curtains for protection where space is limited

Manufactured with robust aluminum housings, the new Safetinex Slim units are well-suited to the production environment and will withstand shocks and vibrations. Industry-standard PNP configuration allows connection to the controller via an integral 5-pin M12 cable connector. The integrated alignment LED provides easy installation and permanent autocontrol ensures reliable operation of the light curtain.

Safetinex Slim devices offer good optoelectronic performance with a much smaller footprint (26 mm x 26 mm) than standard size light curtains (42 mm x 48 mm). Moreover, the protective height of these devices is equal to their length, eliminating any blind zone or loss of resolution, even when mounted in combination. Improved workplace ergonomics can therefore be combined with optimum operator protection.

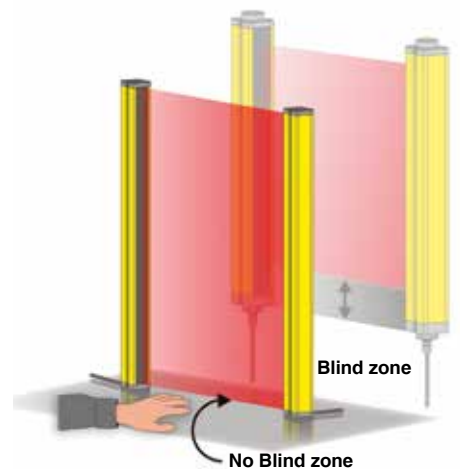*Improved workplace ergonomics*

KEY ADVANTAGES

- ✓ Permanent autocontrol
- ✓ Slim profile of only 26 mm x 26 mm
- ✓ No blind zone
- ✓ IP 65 protection
- ✓ Hand resolution (30 mm)
- ✓ Excellent safety rating to EN/ISO 13849-1 and IEC 61496-1-2 Cat. 2 PL c

INDUSTRIES

Metal forming, printing machines, assembly machines with limited risk, pick and place systems, logistics conveyors

SAFETY LEVEL	Category 2, Type 2, PL c
Suitable for	hand protection
Housing dimensions	26 x 26 mm
Available protective heights	161...1610 mm
Max. operating range	12 m
Automatic restart mode	✓*
Manual restart mode	✓*
Muting operation	✓*
Stepping operation	✓*
TÜV certification	✓

* in combination with suitable Contrinex Safety Relay
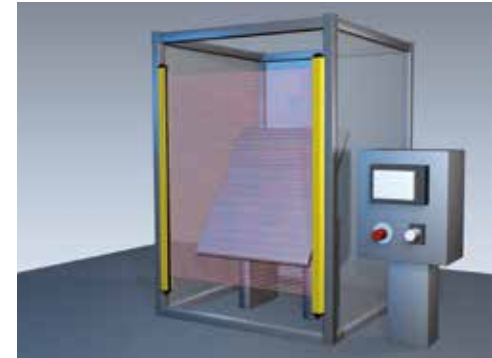
SAFETY

SAFETINEX STANDARD

EXCELLENT PRICE/PERFORMANCE RATIO

HIGHLIGHTS

✓ Light-curtains for hand and finger protection
✓ Access control barriers with 3 or more beams
✓ Performance Level PL e or PL c, according to EN ISO 13849-1
✓ Type 4 or Type 2 according to EN IEC 61496-1/2
✓ Automatic and manual restart mode, muting and stepping operation*
✓ Device and mirror columns
✓ High quality at attractive prices
✓ IP 65 / IP 67

Hand protection devices on a bending machine for automotive industry

INDUSTRIES

Automotive manufacturing, machine tools, logistics, textiles, green energy, packaging, filling machines

SAFETY LEVEL	Category 4, Type 4, PL e			Category 2, Type 2, PL c
Suitable for	finger protection	hand protection	access control	hand protection
Housing dimensions (mm)	42 x 48	42 x 48	42 x 48	42 x 48
Available protective heights (mm)	142...1827	279...1827	932...1532	150...1827
Max. operating range	3.5 m	12 m	50 m	12 m
Automatic restart mode	✓*	✓*	✓*	✓*
Manual restart mode	✓*	✓*	✓*	✓*
Muting operation	✓*	✓*	✓*	✓*
Stepping operation	✓*	✓*	✓*	✓*
TÜV certification	✓	✓	✓	✓
UL/cUL certification	✓	✓	✓	

* in combination with suitable Contrinex Safety Relay

CONTRINEX

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* Contrinex subsidiary

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