

CONTRINEX

SENSORS SAFETY RFID

HIGHLIGHTS

SMART INDUCTIVE & PHOTOELECTRIC SENSORS

- IO-Link smart profile with analog or digital outputs

INDUCTIVE WELD-IMMUNE & SPATTER-RESISTANT ACCESSORIES

- Revolutionary protection for long life

PHOTOELECTRIC C23, M12 & M18 SERIES

- Robust with excellent background suppression

PHOTOELECTRIC MINIATURE SERIES

- Ultra-compact MiniDist – fully embeddable

RFID WITH IO-LINK

- Tough, fast, cost-effective and easily integrated

PROGRAM OVERVIEW 2023

LIVE SENSOR DATA FOR IIoT  IO-Link



WELD-IMMUNE



ContriApp



SMART SENSOR



PocketCodr

A
Swiss
Company

CONTRINEX – A WORLD OF SENSORS

AT A GLANCE

- ✓ Global Smart-Sensor technology leader for complex automation and Smart-Factory applications
- ✓ 50 years' experience of intelligent-sensing and identification solutions using leading-edge inductive and photoelectric sensors and RFID systems in the most demanding applications, in the harshest environments and with the tightest space constraints
- ✓ Using real-time sensor data for IIoT and remote asset management, enabling customers to make faster and better decisions
- ✓ Represented in over 60 countries worldwide, headquartered in Switzerland
- ✓ Unrivalled portfolio of more than 8,000 products



Contrinex Headquarters, Switzerland

GLOBAL PRESENCE

Shop 24/7
www.contrinex.com

FAST DELIVERY **WORLDWIDE SHIPPING** **EASY TO FIND PRODUCTS & ACCESSORIES**

CONTRINEX PRODUCT RANGES



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




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.

✓ ✓ ✓ ✓




Diagnosis

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

✓ ✓ ✓ ✓



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.

✓ ✓ ✓ ✓



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.

✓ ✓ ✓



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.

✓ ✓ ✓ ✓



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.

✓ ✓ ✓



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.

✓ ✓ ✓



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.

✓



Sensor mode

Three 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.

✓ ✓ ✓



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.

✓

*Functionalities may vary depending on series and sensor type

UNLOCK NEW SENSING POTENTIAL



SMART SENSOR

GROUND-BREAKING SMART DEVICES

Contrinex Smart Sensors, designed with the needs of OEMs and system integrators in mind, have all the answers when it comes to reducing complexity and cost. By implementing multiple sensing modes in a single sensor, Contrinex has given designers the freedom they've always dreamed about, offering exceptional versatility and simplified integration.

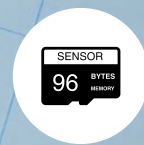
Let Contrinex Smart Sensors supercharge your IoT strategy; enjoy all the advantages of the industry-standard IO-Link SSP 3.3 interface, plus the option of high-speed sensor-based decision-making using SIO. The only limit is your imagination...



Multi-Mode High-Resolution Measurement



Embedded Predictive-Maintenance Features



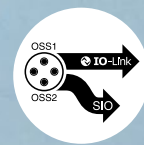
User-Defined Memory



User-Configurable Outputs



Direct Device-to-Device Communication



Dual Channel

SMART SENSORS



SMART SENSORS



PRODUCT ADVANTAGES SMART INDUCTIVE SENSORS

- ✓ Multiple sensing modes in a single sensor
- ✓ Two sensor output channels enable usage for IIoT applications
- ✓ Extensive options for user configuration ensure exceptional versatility
- ✓ High-resolution Smart Digital Measurement Sensors (DMS) deliver continuous target-distance data
- ✓ IO-Link smart profile with analog or digital output simplifies control-system integration
- ✓ Condition-based alarms minimize maintenance costs
- ✓ Full-inox versions offer increased protection with exceptional sensing ranges on aluminum, brass and copper targets

PRODUCT ADVANTAGES SMART PHOTOELECTRIC SENSORS

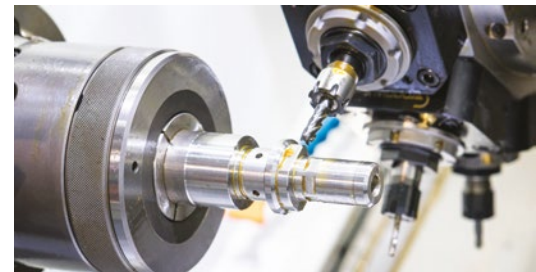
- ✓ Multiple sensing modes in a single sensor
- ✓ Two sensor output channels enable usage for IIoT applications
- ✓ Extended measurement range vs Smart Inductive Sensors
- ✓ Advanced switching logic encompasses more applications
- ✓ Enhanced 3-mode teach capability for increased flexibility
- ✓ IO-Link smart profile with digital output simplifies control-system integration
- ✓ Condition-based self-monitoring minimizes maintenance costs
- ✓ Localized D2D process logic enables sensor-based decision-making

INDUSTRIES

Automation, packaging, robotics, automotive, green energy, environment, logistics, machine tools, electronic assembly, food and beverage, textiles, materials handling



Spindle-cutting machine tool



Metal recycling equipment



Conveyor systems



Robotics for pick-and-place



SMART SENSORS

AGV POSITIONING + MACHINE OPTIMIZATION

An inductive Basic Smart Sensor, positioned in the docking bay of a pick-and-place loading machine, senses the approach of an AGV and communicates via IO-Link with a central PLC, ensuring safe two-speed docking.

Using its second output, the sensor also communicates with a local control system via a wireless hub, initiating start-up for the pick-and-place machine, which has been on stand-by since completion of the previous loading cycle.



Local optimization of machine utilization and energy usage optimizes effectiveness

- ✓ Smart inductive sensor supports two-speed AGV docking to reduce cycle time
- ✓ Simple IO-Link routines trigger low-speed final approach at pre-set distance
- ✓ Secondary output communicates wirelessly with local control systems
- ✓ Machine standby is initiated and ended based on demand, reducing energy needs

OVER-HEIGHT DETECTION + THROUGHPUT MONITORING

A photoelectric DMS Smart Sensor, positioned directly above a conveyor transporting sealed cartons, detects an over-height carton and reports via IO-Link to a central server, triggering an intervention if required.

The sensor also maintains a count of throughput, reporting separately when a pre-set quantity is reached and sending an alert to the warehouse in preparation for the arrival of an AGV. This may also trigger an upload of path data to the AGV for its journey to a specific warehouse location.



Smart Sensor enables integration of discrete operational systems

- ✓ Sensor with extended sensing distance ensures non-contact over-height detection
- ✓ IO-Link communication triggers timely intervention if required
- ✓ Smart Sensor also maintains cumulative throughput count at no extra cost
- ✓ Secondary output alerts warehouse systems to expect arrival of an AGV

SMART INDUCTIVE SENSOR



SMART SENSOR BASIC SMART DIGITAL MEASUREMENT SENSORS (DMS) SMART ANALOG MEASUREMENT SENSORS (AMS)

		Operating Distance (mm)		Operating Distance (mm)		Operating Distance (mm)	
M8	emb.	3	4	-	-	-	-
	non emb.	-	6	-	-	-	-
M12	emb.	4	6	6	-	-	-
	non emb.	-	10	-	-	-	-
P12	emb.	-	2	-	-	-	-
M18	emb.	8	10	10	-	-	-
	non emb.	-	20	-	-	-	-

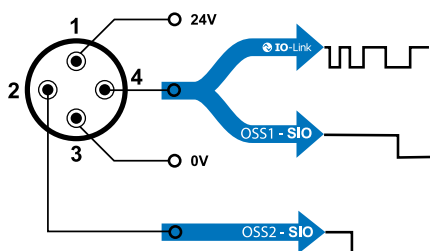
- Dual-channel configurable outputs
- Stretch, delay or one-shot timers
- Digital teach function
- Event-based alarms
- Temperature monitoring
- Counter functions

- Dual-channel configurable outputs
- Stretch, delay or one-shot timers
- Digital teach function
- Event-based alarms
- High-resolution distance measurement
- Linear digital output
- Data Storage
- Pin 2 configurable as input for wire-teach or D2D
- Temperature monitoring
- Counter functions

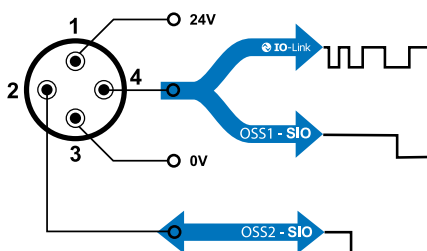
- Dual-channel configurable outputs
- Stretch, delay or one-shot timers
- Digital teach function
- Event-based alarms
- High-resolution distance measurement
- Linear analog or digital output
- Voltage output
- Data Storage
- Temperature monitoring
- Counter functions



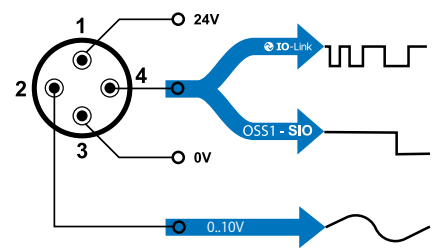
Dual Output



Dual Output



Dual Output



SMART PHOTOELECTRIC SENSOR



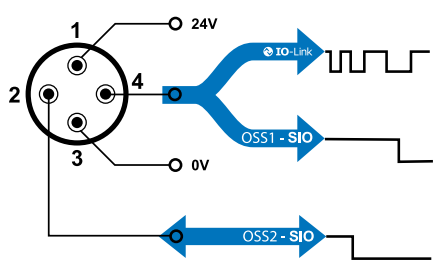
SMART SENSOR BASIC

C23	Operating Distance (mm)
Background suppression	0...300
Diffuse	0...1 500
Reflex	0...8 000
Through beam	0...30 000
M18	Operating Distance (mm)
Background suppression	0...250
Diffuse	0...1 200
Reflex	0...7 000
Through beam	0...30 000

- Dual-channel configurable outputs
- Stretch, delay or one-shot timers
- Data storage
- Digital teach function
- Temperature monitoring
- Counter functions
- Event-based alarms



Dual Output



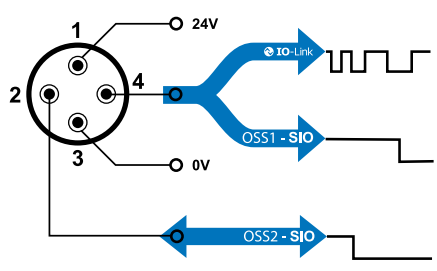
SMART DIGITAL MEASUREMENT SENSORS (DMS)

C23	Operating Distance (mm)
Distance	25 - 150
M18	Operating Distance (mm)
Distance	25 - 150

- Dual-channel configurable outputs
- High-resolution distance measurement with linear digital output
- Stretch, delay or one-shot timers
- Data storage
- Digital teach function
- Pin 2 configurable as input for wire-teach or D2D
- IO-Link smart profile with on-board data storage
- Temperature monitoring
- Counter functions
- Data recording and statistical computation
- Event-based alarms



Dual Output



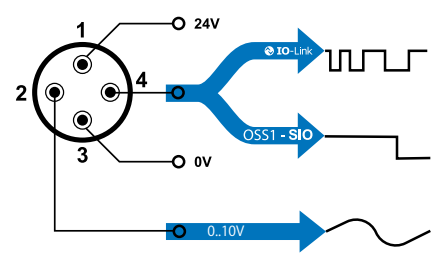
SMART ANALOG MEASUREMENT SENSORS (AMS)

C23	Operating Distance (mm)
Distance	25 - 150
M18	Operating Distance (mm)
Distance	25 - 150

- Dual-channel configurable outputs
- High-resolution distance measurement with linear analog output
- Data storage
- Voltage output
- Stretch, delay or one-shot timers
- Digital teach function
- IO-Link smart profile with on-board data storage
- Temperature monitoring
- Data recording and statistical computation
- Counter functions
- Event-based alarms



Dual Output





PocketCodr



WORKS WITH IO-Link SENSORS

NO-CODE SENSOR CONFIGURATION

KEY ADVANTAGES

- ✓ PocketCodr app uses live data graphs to present sensor parameters on-screen and in real time
- ✓ PocketCodr's unique Action Widgets for Smart Sensors eliminate need for coding skills

HIGHLIGHTS

LIVE INTERACTIVE DATA GRAPHS

- ✓ View either routine process data or real-time event-driven changes of state
- ✓ Interactive data graphs shows exactly how a sensor is behaving in real time

ACTION WIDGETS

- ✓ Simple configuration of compatible sensors without the need for programming skills
- ✓ Easy-to-understand in-app process features a series of intuitive, graphics-based screens
- ✓ Familiar controls include sliders, toggle buttons, and checkboxes, while helpful prompts guide users through the configuration

TEAM COLLABORATION

- ✓ PocketCodr enables remote sharing of sensor configurations among team members
- ✓ Sensor configurations are backed-up securely and available on demand at any location



+



+



Live Interactive Data Graphs



User-friendly action widgets



Team collaboration



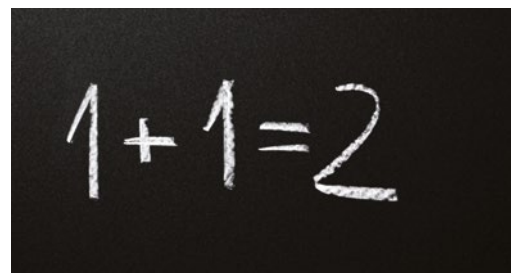


EXCELLENCE IN NORMAL ENVIRONMENTS

BASIC

KEY ADVANTAGES

- ✓ Exceptional price/performance ratio
- ✓ Excellent accuracy
- ✓ Outstanding switching-point stability
- ✓ Vibration and shock resistant



Textile spinning machine automation



INDUSTRIES

Automotive production and supply, machine tool, energy, packaging, logistics, materials handling, textile, assembly, automation

HIGHLIGHTS

C44 SERIES

- ✓ Highly flexible sensor solution
- ✓ Suitable for rough environments, IP68/IP69K impervious
- ✓ Active face mountable in 5 directions
- ✓ Long operating distances
- ✓ Easy click-and-lock mounting



Position detection on crane



FULL INOX BASIC

- ✓ One-piece stainless steel housing (sensing face included)
- ✓ Factor 1 on steel and aluminum
- ✓ Outstanding lifetime and robustness due to Condet® technology and Contrinex ASIC
- ✓ Practically indestructible sensor



Wind turbine speed monitoring



EXTRA DISTANCE

- ✓ Up to 4-times standard operating distance, proven for more than 20 years across the world's largest installed base
- ✓ Outstanding lifetime and electromagnetic compatibility due to Condist® technology and Contrinex ASIC
- ✓ Special material detection (e.g. carbon fiber)



Presence sensing in automotive factory



IO-Link

Housing size mm		Ø6.5	M8	C8	M12	M18	M30	C44	C12
s _n mm	Classics	1.5... 2	1.5... 4	1.5... 2	2... 8	5... 12	10... 25	15... 40	4
	Extra Distance	3	3... 6	3	6... 10	12... 20	22... 40	–	–
	Full Inox	–	2	–	3	5	10	–	–



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 $+70^{\circ}\text{C}$ ($+158^{\circ}\text{F}$) or $+85^{\circ}\text{C}$ ($+185^{\circ}\text{F}$) for Full Inox types
- ✓ Sensor weight starting as low as 18 g
- ✓ Electronics vacuum potted for optimum long-term reliability under high stress

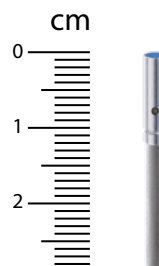
INDUSTRIES

Machine tool, vehicles, assembly, automation, robotics, micromechanics, special purpose machines

HIGHLIGHTS

MINIMINI

- ✓ Embeddable ultraminiature device
- ✓ Housing length 12 mm, 3 mm diameter, stainless steel V2A
- ✓ Increased operating distance: 1 mm
- ✓ High switching frequency up to 8,000 Hz



FULL INOX MINIATURE

- ✓ Outstanding lifetime and robustness due to Condnet® technology and Contrinex ASIC
- ✓ One-piece stainless steel housing (sensing face included)
- ✓ Long operating distances
- ✓ Factor 1 on steel and aluminum
- ✓ Pressure resistant up to 120 bar (1740 psi)



EXTRA DISTANCE

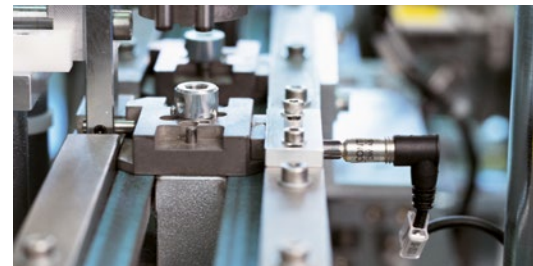
- ✓ Long operating distances, proven for more than 20 years across the world's largest installed base
- ✓ Outstanding lifetime and electromagnetic compatibility due to Condnet® technology and Contrinex ASIC



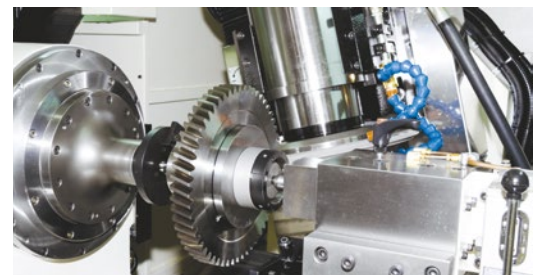
Robotics for pick-and-place



Linear drive technology



Machine tool position control



Textile spinning machine automation



IO-Link

Housing size mm		Ø3	M4	Ø4	M5	C5
s _n mm	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	–

INDUCTIVE SENSORS



EXTREME DURABILITY IN HARSH ENVIRONMENTS

EXTREME

KEY ADVANTAGES

- ✓ One-piece stainless-steel housing
- ✓ Mechanically and chemically extremely robust
- ✓ Corrosion resistant
- ✓ IP68 and IP69K, water resistant
- ✓ Pressure resistant up to 100 bar (1,451 psi)
- ✓ Factor 1 on steel and aluminum



Tools for machining metal components



Mixing, lifting and tipping mechanisms



INDUSTRIES

Automotive production and supply, machine tool, maritime, vehicles, packaging, logistics, materials handling

IO-Link

Housing size mm	M8	M12	M18	M30	C23
Full Inox (s _n mm)	3...6	2...15	5...20	10...40	7

ANALOG OUTPUT FOR DISTANCE CONTROL

ANALOG OUTPUT

KEY ADVANTAGES

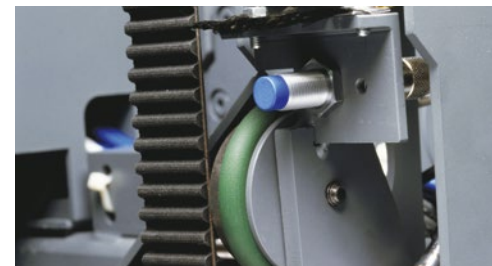
- ✓ Longest sensing ranges
- ✓ Best temperature stability
- ✓ Excellent repeat accuracy
- ✓ Resolution in μm range
- ✓ Current or voltage output



Distance monitoring for position control



Drive-belt tension monitoring



INDUSTRIES

Machine tool, packaging, logistics, materials handling, textile, printing, metal sorting, quality control, vibration monitoring

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

INDUCTIVE SENSORS



**PRESSURE RESISTANT UP TO 200 BAR
(2901 PSI)**

EXTRA PRESSURE

KEY ADVANTAGES

- ✓ Pressure resistant up to 200 bar (2,901 psi)
- ✓ Mechanically and chemically rugged
- ✓ Impervious: IP68
- ✓ Gas-tight sensing face
- ✓ Miniature devices

INDUSTRIES

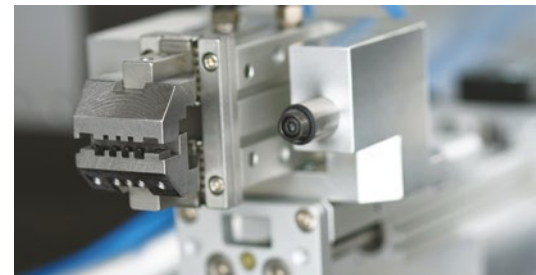
Automotive production and supply, machine tool, energy, pneumatics, lubrication systems, pumps, valves

IO-Link

Housing size mm		Ø4	Ø6.5	M8
s _n mm	Classics	0.6	–	–
	Extra Distance	–	2.5	2.5



Micromechanical grippers



Pump and valve control



**PRESSURE RESISTANT UP TO 500 BAR
(7255 PSI)**

HIGH PRESSURE

KEY ADVANTAGES

- ✓ Highest operating (500 bar / 7,255 psi) and peak pressure (1,000 bar / 14,510 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

Automotive production and supply, machine tool, energy, maritime, hydraulic and fluid power, concrete pumps, injection molding machines

IO-Link

Housing size mm		M5/P5	M8/P8	M12/P12	M14/P20
s _n mm	Extra Distance	1	1.5	1.5...2.5	3
	Full Inox	–	–	1.5	–



Hydraulic cylinder control with sensors



Valve control for concrete pumps



INDUCTIVE SENSORS



**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



Aircraft door monitoring



Automotive part sensing

INDUSTRIES

Automotive production and supply, machine tool, energy, aerospace

IO-Link

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



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

HIGH TEMPERATURE

KEY ADVANTAGES

- ✓ Highest long-term stability due to fully potted electronics
- ✓ Long sensor life
- ✓ Reliable sensing in high temperature applications
- ✓ Compact construction with integral amplifier for temperatures up to +180°C (+356°F)
- ✓ External amplifier module for temperatures up to +230°C (+446°F)



Automated bakery equipment



Paintshop in automotive industry

INDUSTRIES

Automotive production and supply, paintshops, surface treatment, bakery equipment

Housing size mm	M8	M12	M18	M30	M50
Classics (s _n mm)	2	3/4	5	10/15	25



INDUCTIVE SENSORS

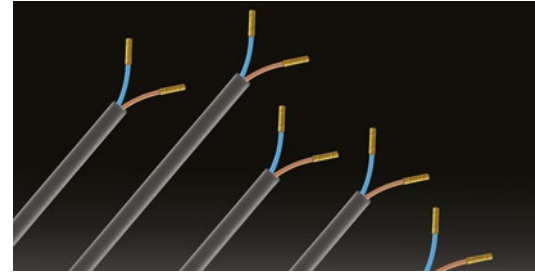


EASY INSTALLATION AND HIGH SWITCHING FREQUENCY

2-WIRE

KEY ADVANTAGES

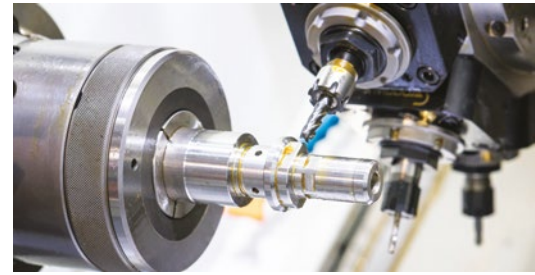
- ✓ Two-wire sensors for series connection
- ✓ Sizes from Ø3 mm to M30 and 5 × 5 mm
- ✓ DC and AC/DC types
- ✓ NAMUR types with switching frequencies up to 10,000 Hz



Automotive part sensing



Spindle-cutting machine tool



INDUSTRIES

Automotive production and supply, machine tool, packaging, logistics, materials handling, textile

Housing size mm	Ø3	M4	Ø4	M5	C5	Ø6.5	M8	M12	M18	M30
Classics (s _n mm)	0.6	0.6	0.8	0.8	0.8	1.5	1.5/ 2.5	2/ 4	5/ 8	10/ 15

FOR SHIPS, PORTS AND OFFSHORE

MARITIME

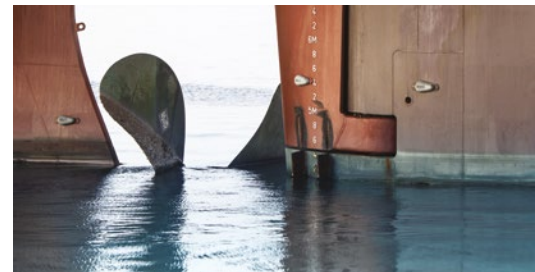


KEY ADVANTAGES

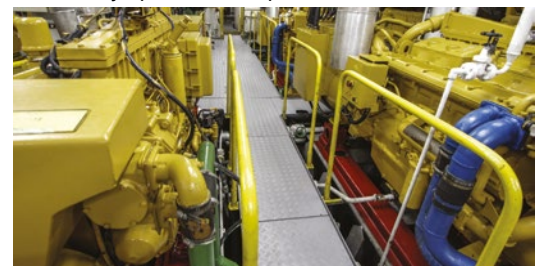
- ✓ GL approved, class DNV-GL-CG-0339
- ✓ Special EMC protection
- ✓ Resistant to corrosion and salt water
- ✓ Impervious, enclosure rating IP68 or IP69K
- ✓ Temperature range -25... +85°C (-13... +185°F)
- ✓ Full Inox types: one-piece stainless-steel housing (V4A/AISI 316L), factor 1 on steel and aluminum
- ✓ Pressure-resistance available up to 500 bar (800 bar peak)



Wear monitoring, propeller shaft



Machinery spaces in ships



INDUSTRIES

Maritime, machine tool, energy, vehicles, ships, port and offshore installations



Housing size mm	M10	M12	M18	M30	P12G	C23
s _n mm Full Inox	-	6	10	20	1.5	7
Classics	0.6	-	-	-	-	-



REVOLUTIONARY PROTECTION FOR LONG LIFE

WELD-IMMUNE

KEY ADVANTAGES



ANTI-SPATTER COATING

Activstone® coating on all external surfaces resists weld spatter in spot, MIG and MAG applications.



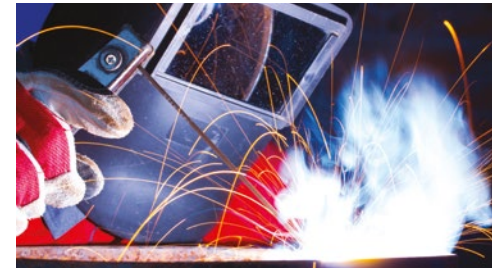
WELD-FIELD IMMUNITY

Contrinex sensors resist magnetic interference from medium-frequency weld fields, current up to 15 kA.



IMPACT RESISTANCE

With one-piece stainless-steel housings and Condet® technology, Full Inox sensors offer maximum impact resistance.



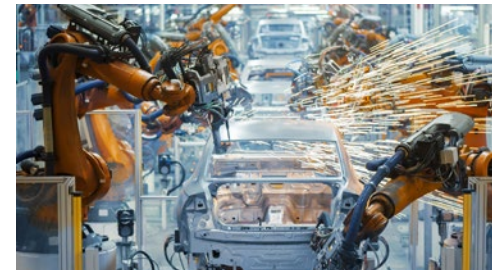
Welding cell in automotive factory



OEM welding equipment



Automotive production and supply



Welding equipment



INDUSTRIES

Automotive production and supply, welding equipment

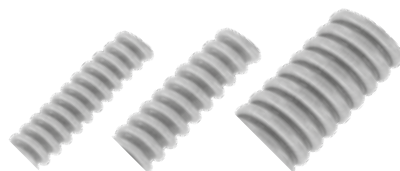
IO-Link

Housing size mm	M8	M12	M18	M30	C23
Full Inox (s _n mm)	3	6	10	16	7
*Classics (s _n mm)	2	4	8	–	–

ACCESSORIES



Cables



Protective tubes



Mounting brackets

INDUCTIVE SENSORS



FOR THE HARSHTEST MACHINING ENVIRONMENTS

CHIP-IMMUNE



Tools for machining metal parts

KEY ADVANTAGES

- ✓ Detection not influenced by chips of steel, stainless steel, aluminum, brass, copper or titanium
- ✓ Detection of targets made of the above metals
- ✓ Robust, one-piece stainless-steel housing, protection rating IP68 and IP69K
- ✓ Temperature range $-25 \dots +85^{\circ}\text{C}$ ($-13 \dots +185^{\circ}\text{F}$)
- ✓ Size M12, M18 and M30
- ✓ Operating distances up to 12 mm



Metal recycling equipment

INDUSTRIES

Automotive production and supply, machine tool



IO-Link

Housing size mm	M12	M18	M30
Full Inox (s_n mm)	3	5	12

DOUBLE-SHEET DETECTION IN METALWORKING

DOUBLE-SHEET



Robot handling of sheet metal

KEY ADVANTAGES

- ✓ Double-sheet detection (steel and aluminum) with sensitivity of 0.8–1.2 mm per sheet
- ✓ Full Inox: extremely robust one-piece stainless-steel housing
- ✓ Corrosion resistant
- ✓ IP68 and IP69K
- ✓ Pressure resistant up to 80 bar



Double-feed prevention for formed parts

INDUSTRIES

Automotive production and supply, machine tool, surface treatment, stamping and forming, aluminum industry

Housing size mm	M30
Full Inox (s_n mm)	4



INDUCTIVE SENSORS



ECOLAB APPROVED FOR HARSHTEST CLEANING PROCESSES

WASHDOWN

KEY ADVANTAGES

- ✓ Corrosion resistant
- ✓ Food safe
- ✓ IP68/IP69K protection
- ✓ Extremely rugged Full Inox types: one-piece stainless-steel housing, factor 1 on steel and aluminum, Ecolab approved

INDUSTRIES

Food and beverage, packaging, logistics, materials handling, pharmaceutical industry, industrial cleaning systems



Sorting conveyor for egg packaging



Brewery production equipment



IO-Link

Housing size mm		M12	M18	M30
s _n mm	Full Inox	6... 10	10... 20	20... 40
	Classics	2	–	–

ULTRASONIC SENSORS

IDEAL FOR LIQUID OR GRANULAR TARGETS

KEY ADVANTAGES

- ✓ Precise control of position, distance, height and level
- ✓ Sensing ranges up to 6,000 mm
- ✓ Diffuse and reflex types
- ✓ Robust housings in food-grade stainless steel or plastic, IP67
- ✓ M18 in standard or short housing
- ✓ M30 in standard housing or with large front
- ✓ Various output types



Level monitoring in plastic production



Liquid level sensing in food industry



INDUSTRIES

Packaging, logistics, materials handling, food and beverage, agriculture, filling machines

*Metal or plastic housing **Plastic housing

SERIES		M18 short body*	M18 standard body*	M30 standard body*	M30 large head**
Housing size mm					
s _n mm	Diffuse	300 / 1,200	900 / 2,000	2,500 / 3,500	6,000
	Reflex	300 / 1,200	900 / 2,000	–	–

PHOTOELECTRIC SENSORS



FIRST-CLASS PERFORMANCE FOR GENERAL USE STANDARD

KEY ADVANTAGES

- ✓ First-class sensing ranges
- ✓ Outstanding background suppression characteristics
- ✓ Light sources: red, infrared, laser and pinpoint LED

INDUSTRIES

Automotive production and supply, machine tool, packaging, logistics, materials handling, food and beverage, textile

HIGHLIGHTS

C23 SERIES

- ✓ Small plastic housing, 20 × 30 × 10 mm
- ✓ Excellent background suppression characteristics with pinpoint LED
- ✓ IO-Link interface available on PNP types
- ✓ Mutual interference immunity
- ✓ Versions available with stability alarm as second output
- ✓ Enclosure rating IP67, Ecolab approved



Textile spinning machine automation



Beverage filling machines



Conveyor systems

M18P SERIES

- ✓ Short housing: M18 × 33 mm (cable version), M18 × 37 mm (connector version)
- ✓ Excellent background suppression characteristics with pinpoint LED
- ✓ IO-Link interface available on PNP types
- ✓ Mutual interference immunity
- ✓ Easy flush mounting
- ✓ Easy-to-mount special accessories for right-angle emission



IO-Link

SERIES	M12M*	1120	M18P	M18M**	1180	C23	3030	4050	C55
Housing size mm	M12	M12	M18	M18	M18	□ 20×30×10	□ 30×30×15	□ 40×50×15	□ 50×50×23
s_n mm									
Diffuse	800	300	1,200	1,200	250/600	1,500	600/1,200	1,200	–
Reflex	4,000	1,500	7,000	7,000	2,000	8,000	2,000/4,000	4,000	–
Through-beam	10,000	10,000/ 50,000	30,000	30,000	20,000/ 50,000	30,000	6,000/ 12,000	50,000	–
Background suppression	–	–	250	250	120	300	200	500	5,000



SMALLEST ON THE MARKET MINIATURE

KEY ADVANTAGES

D04 / M05 / 0507 series

- ✓ Rugged diffuse or through-beam sensors in steel housing: Ø4 mm, M5 or 5 × 7 × 40 mm
- ✓ Extremely compact self contained photoelectric sensors
- ✓ Accurate target detection due to focused red light beam

C12 series

- ✓ Plastic housing, 13 × 21/27 × 7 mm
- ✓ Red pinpoint LED, small visible light spot
- ✓ Long sensing ranges
- ✓ Excellent background suppression up to 120 mm with 3-turn potentiometer

INDUSTRIES

Packaging, logistics, materials handling, assembly, automation, robotics, precision engineering, semiconductors, electronics, vending machines, miniature conveyors, grippers

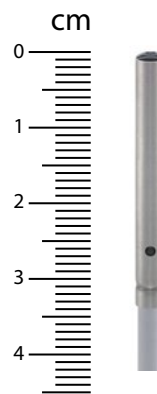
HIGHLIGHTS

D04 SERIES

- ✓ Embeddable housing in stainless steel V2A, Ø4 mm
- ✓ Calibrated sensing ranges
- ✓ Teach available with extended type
- ✓ High switching frequency
- ✓ Connection by cable or M8 pigtail
- ✓ Enclosure rating IP67

M05 SERIES

- ✓ Embeddable housing in stainless steel V2A, threaded M5
- ✓ Calibrated sensing ranges
- ✓ Teach available with extended type
- ✓ High switching frequency
- ✓ Connection by cable or M8 pigtail
- ✓ Enclosure rating IP67



Micromechanical grippers



PCB component presence check



Detection of small parts



SERIES Housing size mm	D04 Ø4	M05 M5	0507 □ 5 × 7 × 40	C12 □ 13 × 21 / 27 × 7
s_n mm	12 / 24 / 60 / 120	12 / 24 / 60 / 120	20 / 50 / 90	–
Diffuse	–	–	–	15 / 30 / 120
Background suppression	–	–	–	3,000
Reflex	600	600	–	2,000
Through-beam	–	–	–	–

PHOTOELECTRIC SENSORS



CUSTOMIZABLE AND READY TO INTEGRATE MINIDIST

KEY ADVANTAGES

- ✓ Miniature, photoelectric distance-measurement sensors
- ✓ Analog output 01...2.6 VDC + adjustable PNP light-on output
- ✓ Fully embeddable and suitable for easy integration with option for micro-housing
- ✓ Available with or without housing
- ✓ Enables distance-measurement for metallic and non-metallic targets
- ✓ Advanced optical and ASIC technology
- ✓ Pinpoint LED red light source with light spot 5mm



Presence sensing by industrial robot



Printed circuit board production

INDUSTRIES

Packaging, logistics, materials handling, robotics, precision engineering, printed circuit board production, electronics, vending machines, special machinery, quality control

IO-Link

SERIES Housing size mm	N01 without housing □ 14.45×7×4	C02 □ 22×5×6
Distance (s _n mm)	up to 35	up to 35



PRECISION MEASUREMENT FOR THE MOST DEMANDING ENVIRONMENTS SMART SENSOR ADVANCED

KEY ADVANTAGES

- ✓ High-resolution digital/analog measurement sensors (DMS/AMS)
- ✓ Robust metal-bodied construction
- ✓ Advanced switching logic encompasses more applications
- ✓ Digital teach function
- ✓ Condition-based self-monitoring minimizes maintenance costs
- ✓ Temperature monitoring and configurable alarm sources
- ✓ User-configurable signal scaling function



SMART SENSORS

Non-metallic position detection



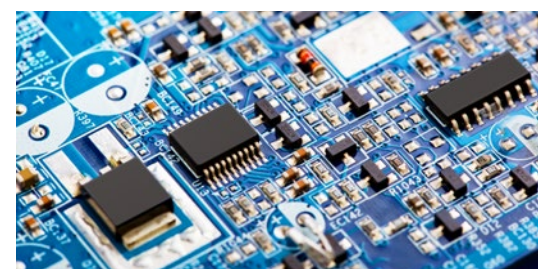
Component height detection

INDUSTRIES

Automotive production and supply, machine tool, surface treatment, stamping and forming, aluminum industry

IO-Link

Housing size mm	C23	M18M
Distance (s _n mm)	25 - 150	25 - 150





RELIABLE SHORT AND LONG-RANGE SENSING FIBER-OPTIC

KEY ADVANTAGES

Fiber-optic sensors

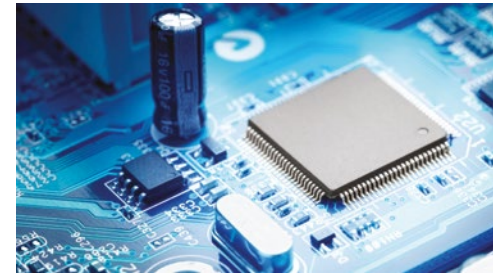
- ✓ Robust 3030 series (30 × 30 × 15 mm)
- ✓ DIN-rail mounted 3060 series (31 × 60 × 10 mm) suitable for multiple-sensor applications
- ✓ Distance setting by potentiometer or teach-in

Fibers

- ✓ Large selection of types, including cylindrical light beam, multi-beam, liquid-level monitoring, low-and high-temperature
- ✓ Diffuse or through-beam sensing, axial or radial
- ✓ Synthetic fibers with bending radii from 2 mm, suitable for cutting on-site



Printed circuit board production



Presence sensing by industrial robot



INDUSTRIES

Packaging, logistics, materials handling, robotics, precision engineering, printed circuit board production, electronics, vending machines, special machinery, quality control



SERIES Housing size mm	3030 □ 30 × 30 × 15	3060 □ 30 × 60 × 10
Fiber-optic amplifier (s _n mm)	60 / 120	200

HIGH PRECISION AND DIRECT DIGITAL TRANSMISSION DISTANCE

KEY ADVANTAGES

C23 Distance measuring sensors

- ✓ Two distance measurement ranges: 20 ... 80 mm and 30 ... 200 mm
- ✓ Housing 20 × 34 × 12 mm
- ✓ High precision and repeatability
- ✓ Settable analog range for optimum distance measurement
- ✓ Enclosure rating IP67/IP69K

C55 distance measuring sensors

- ✓ Distance measurement up to 5,000 mm
- ✓ Housing 50 × 50 × 23 mm
- ✓ High precision and repeatability
- ✓ Settable analog range for optimum distance measurement
- ✓ Enclosure rating IP67/IP69K, Ecolab approved



Position control in furniture factory



Sensing and measuring shelf space



INDUSTRIES

Packaging, logistics, materials handling, woodworking industry, quality control, precision engineering, printed circuit board production



SERIES Housing size mm	C23 □ 20 × 34 × 12	C55 □ 50 × 50 × 23
s _n mm	80 / 100 / 200	–
	–	5,000

PHOTOELECTRIC SENSORS



OUTSTANDING RELIABILITY AND EASE OF ADJUSTMENT

TRANSPARENT OBJECT

KEY ADVANTAGES

- ✓ Light sources: UV and red LED
- ✓ Highly reliable reflex system
- ✓ C23 plastic housing, 20 × 30 × 10 mm
- ✓ IO-Link interface available on PNP types
- ✓ Versions available with stability alarm as second output
- ✓ Adjustment by teach or IO-Link
- ✓ Mutual interference immunity
- ✓ Enclosure rating IP67, Ecolab approved

INDUSTRIES

Packaging, logistics, materials handling, food and beverage, filling machines, pharmaceutical industry

HIGHLIGHTS

C23 TRANSPARENT UV

With Contrinex's patented UV technology, these sensors are ideally suited for the presence control of transparent objects.

- ✓ Extremely reliable detection thanks to strong absorption of UV light by plastic and glass material
- ✓ Easy sensor set-up, even for thinnest transparent objects
- ✓ Low environmental sensitivity minimizes threshold adjustments and maximizes uptime
- ✓ Autocollimated, polarized UV light beam eliminates blind zone, allowing detection of targets close to the sensor or through a small notch
- ✓ Sensing range up to 1,200 mm



Detection of clear plastic bottles



C23 TRANSPARENT STANDARD

For applications requiring the detection of thicker or larger transparent objects, these sensors provide a highly favorable price-performance ratio.

- ✓ Red polarized light source
- ✓ Calibrated sensing range up to 5,000 mm
- ✓ Sensitivity adjustment via teach button, IO-Link or potentiometer



Pharmaceutical vial processing



Detection of glass sheet on conveyor



IO-Link

SERIES Housing size mm	C23 UV Light □ 20 × 30 × 10	C23 Red Light □ 20 × 30 × 10
Reflex (s _n mm)	1,200	5,000



EXCELLENT RESOLUTION FOR SMALLEST VARIATIONS COLOR AND CONTRAST

KEY ADVANTAGES

- ✓ Rugged housing, 40 × 50 × 15 mm
- ✓ Connector adjustable at 0°, 45° and 90°
- ✓ 5 switching tolerance levels

INDUSTRIES

Packaging, logistics, materials handling, food and beverage, filling machines, printing, quality control, sorting processes, tobacco industry, wood processing machines

HIGHLIGHTS

COLOR SENSORS

Color sensors utilize energetic-diffuse sensing technology to detect variations in target color, allowing color sorting or color control. A “teach-in” function is used to program up to three separate outputs. Five selectable tolerance levels for each output enable sensors to recognize or ignore even the smallest variations of color.

- ✓ 3 color teach channels with independent outputs
- ✓ High positioning tolerance
- ✓ High switching frequency: up to 4 kHz

CONTRAST SENSORS

Contrast sensors are ideal for detecting print marks in printing, labelling and packaging processes. Excellent contrast resolution, a high switching frequency (up to 10 kHz) and five tolerance levels ensure accurate detection and positioning, even when contrast differences are minimal.

- ✓ Detection of very small print marks thanks to a narrow, collimated light spot
- ✓ RGB emission technology with best emission color automatically selected
- ✓ Excellent tolerance to target distance variations
- ✓ High switching frequency: up to 10 kHz



Color sorting on drinks conveyor



Detection of anodized products



Detection of marks on cartons



Print-mark detection on label machine



SERIES
Housing size mm

4050 Color
□ 40×50×15

4050 Contrast
□ 40×50×15

Diffuse (s_n mm)

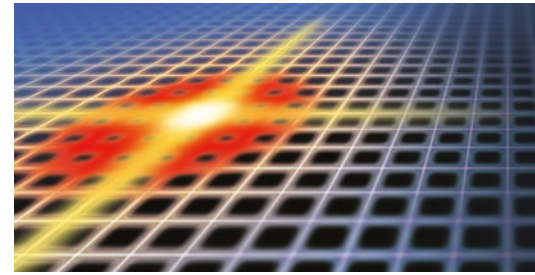
40

12

PHOTOELECTRIC SENSORS



FAST DETECTION, COUNTING AND MEASUREMENT LIGHT GRIDS



KEY ADVANTAGES

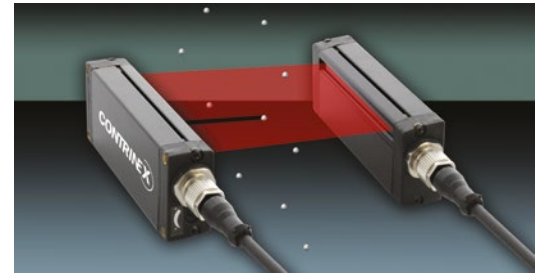
Detection grids

- ✓ 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 2,010 mm

Measurement grids

- ✓ Ideal for position and dimension control
- ✓ Center beam spacing: 5 mm or 12 mm
- ✓ Analog output 0–10 V or 4–20 mA
- ✓ Measurement height: up to 1,418 mm

Counting of small objects



Carton measurement and sorting



INDUSTRIES

Packaging, logistics, materials handling, assembly, automation, laundry industry, small parts production, woodworking industry

SERIES Housing size mm		DGI □40×20.5×H	MGI □40×20.5×H
s_n mm	Detection grids	8,000	–
	Measurement grids	–	4,000

ROBUST SPACE-SAVING DESIGN OFFERS VERSATILITY AND SIMPLICITY FORK SENSORS

KEY ADVANTAGES

- ✓ High resolution: $\varnothing 0.1$ – 0.2 mm
- ✓ High frequency up to 14 kHz
- ✓ 4 sensor modes: Standard, High Resolution, Power, Speed
- ✓ IO-Link v1.1
- ✓ Sensitivity adjustment allowing detection of transparent objects
- ✓ Compact design accommodates photoelectric emitter and receiver in a single housing
- ✓ Push-pull output keeps inventory costs down while allowing exceptional flexibility
- ✓ Robust space-saving housing ensures precise alignment requiring no on-site adjustment



Robotics



Beverage filling machines

INDUSTRIES

Robotics, packaging, materials handling, logistics, food and beverage

IO-Link

SERIES Housing size mm	U 10 □25×45×10	U 20 □40×50×10	U 30 □50×60×10	U 40 □60×70×10	U 50 □70×80×10	U 80 □100×80×10	U 100 □120×80×10	U 120 □144×90×12
Through-beam (s_n mm)	10	20	30	40	50	80	100	120

SAFETY LIGHT CURTAINS



EXCELLENT PRICE/PERFORMANCE RATIO

BASIC STANDARD / SLIM

Light curtains are TÜV, CE and UL-certified according to IEC 61496-1 and -2 and ISO 13849-1. Protective heights range from 142 to 1,827 mm with permanent auto-control and low power consumption. The aluminum housings are slim (26 × 26 mm) or standard (42 × 48 mm) and connection is via an integral 5-pin M12 connector or pigtail.



BASIC		RESOLUTION MM	HOUSING	CATEGORY	KEY ADVANTAGES
		14	STANDARD	Cat. 4	<ul style="list-style-type: none"> ✓ Max. operating range 3.5 m ✓ Operating temperature –35 ... +60°C ✓ IP65, IP67
		30	STANDARD	Cat. 4	<ul style="list-style-type: none"> ✓ Max. operating range 12 m ✓ Operating temperature –35 ... +60°C ✓ IP65, IP67
			SLIM	Cat. 2	<ul style="list-style-type: none"> ✓ No blind zone ✓ Flexible mounting and connection ✓ Operating temperature 0 ... +55°C ✓ Max. operating range 8 m
300 400 500	STANDARD	Cat. 4	<ul style="list-style-type: none"> ✓ Max. operating range 50 m ✓ Operating temperature –35 ... +60°C ✓ IP65, IP67 		

WIRELESS CONFIGURATION (Bluetooth®)

EXTENDED SLIM

Type 4 light curtains from the EXTENDED SLIM range are TÜV, CE and UL certified according to IEC 61496-1/2, IEC 61508-1/2/3 and ISO 13849-1. Protective heights range from 170 to 1610 mm with integrated EDM*, restart interlock and beam coding. Since EDM includes a relay monitoring function, users can also avoid the cost of wired relays. Wireless configuration is easy via the free Bluetooth® smartphone app. No additional tool or cable is required.

*External Device Monitoring



EXTENDED		RESOLUTION MM	HOUSING	CATEGORY	KEY ADVANTAGES
		14	SLIM	Cat. 4	<ul style="list-style-type: none"> ✓ No blind zone ✓ Beam coding (3 channels), EDM, start and restart interlock configurable functions ✓ Wireless configuration through Bluetooth®
30	SLIM	Cat. 4	<ul style="list-style-type: none"> ✓ No blind zone ✓ Beam coding (3 channels), EDM, start and restart interlock configurable functions ✓ Wireless configuration through Bluetooth® 		

SAFETY SENSORS



NON-CONTACT MONITORING OF DOORS

MAGNETIC, RFID

MAGNETIC and RFID safety sensors are ideal for monitoring guard doors, hoods or covers. Their compact housings with standard fixing are particularly suitable for washdown applications in the food industry. RFID types are also ideal for multi-sensor applications, such as long assembly lines. Thanks to non-contact operation and coded communication, service life is very long.



		PRINCIPLE	HOUSING MM	CATEGORY	KEY ADVANTAGES
MAGNETIC			36 × 26 × 13	up to Cat. 4	<ul style="list-style-type: none"> ✓ Magnetically coded, ISO 14119 type 4 ✓ Detection through metal plate possible ✓ IP6K9K, Ecolab
			88 × 25 × 13	up to Cat. 4	<ul style="list-style-type: none"> ✓ Magnetically coded, ISO 14119 type 4 ✓ Detection through metal plate possible ✓ IP6K9K, Ecolab
RFID			36 × 26 × 13	Cat. 4	<ul style="list-style-type: none"> ✓ RFID coded, ISO 14119 type 4 ✓ Cascadable up to 30 units ✓ EDM and diagnostic function ✓ IP6K9K, Ecolab

RELAY, MOUNTING BRACKETS



RELAY			22.5 × 99 × 114.5	Cat. 4	<ul style="list-style-type: none"> ✓ Performance Level (PL) e and category 4 according to EN/ISO 13849-1 ✓ Manual or automatic restart ✓ Short response time
MOUNTING BRACKETS			Top/bottom mounting brackets		<ul style="list-style-type: none"> ✓ Synthetic mounting brackets ✓ Suitable for SLIM light curtains ✓ Pair of brackets supplied with each light curtain
			Side mounting brackets		<ul style="list-style-type: none"> ✓ Metal mounting brackets ✓ Suitable for SLIM light curtains
			Side/end mounting brackets		<ul style="list-style-type: none"> ✓ Metal mounting brackets ✓ Suitable for SLIM light curtains



BASIC AND USB SYSTEM

BASIC transponders (tags) and read/write modules (RWMs) provide cost-effective solutions with ISO/IEC 15693-compatible HF components and a proprietary LF system. Data protection is excellent, transfer time is fast and all components use the same ContriNET protocol with RS-485/USB physical layer. For hardware connection to a computer, USB RWMs provide a USB output and integral connector cable (2 m). Alternatively, a separate USB Adaptor enables a computer to communicate with up to 10 daisy-chained RWMs.



			FREQUENCY	HOUSING SIZE MM	READ/ WRITE DISTANCE MM	KEY ADVANTAGES	
BASIC	TRANSPONDER		LF	Ø20	0 ... 28	<ul style="list-style-type: none"> ✓ HF and LF passive tags, no battery required ✓ LF tags embeddable in metal ✓ Insensitive to dirt ✓ Temperature range -40 ... +125°C (-40 ... +257°F) ✓ IP67 	
				Ø30	0 ... 29		
				Ø50	0 ... 41		
			HF	Ø9	0 ... 14		
				Ø16	0 ... 30		
				Ø20	0 ... 34		
	RWM		LF	M18	0 ... 36		<ul style="list-style-type: none"> ✓ ContriNET RS-485 protocol with outstanding fieldbus coverage ✓ LF and HF RWMs can be daisy-chained on same network ✓ Temperature range -25 ... +80°C (-13 ... +176°F), IP67, integral S12 connector
				M30	0 ... 41		
			HF	M18	0 ... 31		
				M30	0 ... 60		
USB	RWM		LF	M18	0 ... 36	<ul style="list-style-type: none"> ✓ ContriNET USB protocol for direct connection to PC (non-networkable) ✓ Compatible with ContriNET BASIC support tools and DEMO software; DLL for easy development of custom solutions ✓ Temperature range -25 ... +70°C (-13 ... +158°F), IP67, integral USB A male connector 	
				M30	0 ... 41		
			HF	M18	0 ... 31		
				M30	0 ... 60		
	INTER-FACE		LF HF		67×66×28		

HIGH TEMPERATURE TAGS

Designed for environments up to 180°C or 250°C, HIGH TEMPERATURE tags offer exceptional longevity and a thermal cycling reliability of 1,000 hours (or 1,000 cycles). Tags are insensitive to dirt and provide 160 and 2,048 Bytes of user memory. As passive devices, no battery or other power source is required. Housings are impervious (IP68 & IP69K).



HIGH TEMP.	TRANSPONDER		HF	Ø26	0 ... 31	<ul style="list-style-type: none"> ✓ HF tag RTP-0263-020: -25 ... +180°C (-13 ... +356°F), embeddable in metal ✓ HF tags RTP-0502-062: -25 ... +250°C (-13 ... +482°F), 100% silicone-free
				Ø50	0 ... 42	



EXTREME AND WASHDOWN SYSTEM

Read/write modules (RWMs) and embeddable tags from these two ranges feature robust, full-metal, stainless-steel construction. They offer outstanding performance in metallic environments and are insensitive to dirt and metal chips. For the highest mechanical and chemical resistance, WASHDOWN components in food-grade stainless steel (V4A/AISI 316L) are fully sealed and laser welded. They function reliably when immersed in fluids such as water or oil.



		FREQUENCY	HOUSING SIZE MM	READ/ WRITE DISTANCE MM	KEY ADVANTAGES
EXTREME	TRANSPONDER		Ø 10	0 ... 17	<ul style="list-style-type: none"> ✓ LF passive tags, no battery required ✓ All-metal, stainless-steel housings (V2A/AISI 304) resist corrosion, impact and abrasion ✓ Temperature range -40 ... +95°C (-40 ... +203°F) ✓ IP68 & IP69K (when embedded in metal)
			Ø 16	0 ... 19	
			M16	0 ... 13	
			Ø 26	0 ... 26	
			M30	0 ... 23	
	RWM		M18	0 ... 12	<ul style="list-style-type: none"> ✓ ContriNET RS-485 protocol with outstanding fieldbus coverage ✓ All-metal, stainless-steel housing (V2A/AISI 304) resists corrosion, impact and abrasion ✓ Temperature range -25 ... +80°C (-13 ... +176°F), IP68 & IP69K, integral S12 connector
M30	0 ... 12				
WASHDOWN	TRANSPONDER		Ø 10	0 ... 13	<ul style="list-style-type: none"> ✓ LF passive tags, no battery required ✓ All-metal housings in food-grade stainless steel (V4A/AISI 316L) resist saltwater, solvents, corrosion, impacts and abrasion ✓ Temperature range -40 ... +125°C (-40 ... +257°F) ✓ IP68 & IP69K
			Ø 16	0 ... 19	
			M16	0 ... 13	
			Ø 26	0 ... 26	
			M30	0 ... 23	
	RWM		M18	0 ... 12	<ul style="list-style-type: none"> ✓ ContriNET RS-485 protocol with outstanding fieldbus coverage ✓ All-metal housing in food-grade stainless steel (V4A/AISI 316L) resists saltwater, solvents, corrosion, impacts and abrasion ✓ Temperature range -40 ... +125°C (-40 ... +257°F), IP68 & IP69K, integral S12 connector
M30	0 ... 12				

IO-Link R/W MODULES

Ideal for Industry 4.0 solutions, IO-Link read/write modules (RWMs) combine two of the key communication standards in one device: ISO 15693 at the read-write head for communication with tags and ISO 61131-9 at the S12 connector for communication with the control system. Their simplified, plug-and-play installation ensures easy, cost-effective integration.



IO-LINK	RWM			M18	0 ... 42	<ul style="list-style-type: none"> ✓ IO-Link protocol V1.1 with two operating modes: <ul style="list-style-type: none"> - IO-Link device: UID, Read, Write, Auto-Read and Auto-Write commands selectable from the RWM process data - Stand-alone SiO: Tag presence / memory data comparison / RWM Alarms ✓ Temperature range -25 ... +80°C (-13 ... +176°F), IP67, integral S12 connector
				M30	0 ... 60	
				C44	80	

CONNECTIVITY



INDUCTIVE & PHOTOELECTRIC CABLES



CONNECTOR



CABLE CONNECTION END



CONNECTOR	PINS	CONFIG.	CABLE MATERIAL	CABLE LENGTH	WIRE	CABLE CONNECTION END	PINS	PART REFERENCE
M8	3-pole	straight	PUR	2 m	3		–	S08-3FUG-020
M8	3-pole	right angle	PUR	2 m	3		–	S08-3FUW-020
M8	3-pole	straight	PVC	2 m	3		–	S08-3FVG-020
M8	3-pole	right angle	PVC	2 m	3		–	S08-3FVW-020
M8	4-pole	straight	PUR	2 m	4		–	S08-4FUG-020
M8	4-pole	right angle	PUR	2 m	4		–	S08-4FUW-020
M8	4-pole	straight	PVC	2 m	4		–	S08-4FVG-020
M8	4-pole	right angle	PVC	2 m	4		–	S08-4FVW-020
M12	4-pole	straight	PUR	2 m	4		–	S12-4FUG-020
M12	4-pole	right angle	PUR	2 m	4		–	S12-4FUW-020
M12	4-pole	straight	PVC	2 m	4		–	S12-4FVG-020
M12	4-pole	right angle	PVC	2 m	4		–	S12-4FVW-020

ACCESSORIES



UNIVERSAL MOUNTING BRACKETS		MECHANICAL STOPS				PHOTOELECTRIC REFLECTORS	SENSOR TESTER
ASU-0001-080	ASU-0001-120	AMS-0001-M08	AMS-0002-M08	AMS-0001-M12	AMS-0002-M12	LXU-0000-084	
PHOTOELECTRIC MOUNTING BRACKETS							
LXW-C23PA-000	LXW-C23PA-002	LXW-DGMGA-000	LLW-M18PA-000	LXW-M18PA-001	LXU-0001-064	ATE-0000-010	



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- ✓ Our products withstand extremes of environment, weather and contamination

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- ✓ Solution-oriented application support
- ✓ 3 production sites for worldwide availability
- ✓ 3 logistics hubs for rapid delivery

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