

CONTRINEX
SENSORS SAFETY RFID



SENSE MORE, DO MORE

CORPORATE PRESENTATION 2021

CONTRINEX GROUP



GLOBAL
HEADQUARTERS
SWITZERLAND



SALES
SUBSIDIARIES

EUROPE

- Switzerland
- France
- Germany
- Italy
- Portugal

ASIA

- China
- Japan
- India

AMERICAS

- USA
- Mexico
- Brazil



LOGISTICS
HUBS

EUROPE

- Luxembourg

ASIA

- China

AMERICAS

- USA



ASSEMBLY
SITES

EUROPE

- Switzerland

ASIA

- China
- Sri Lanka

AMERICAS

- USA
- Brazil



GLOBAL SHARED
SERVICE CENTER

EUROPE

- Germany
- Hungary

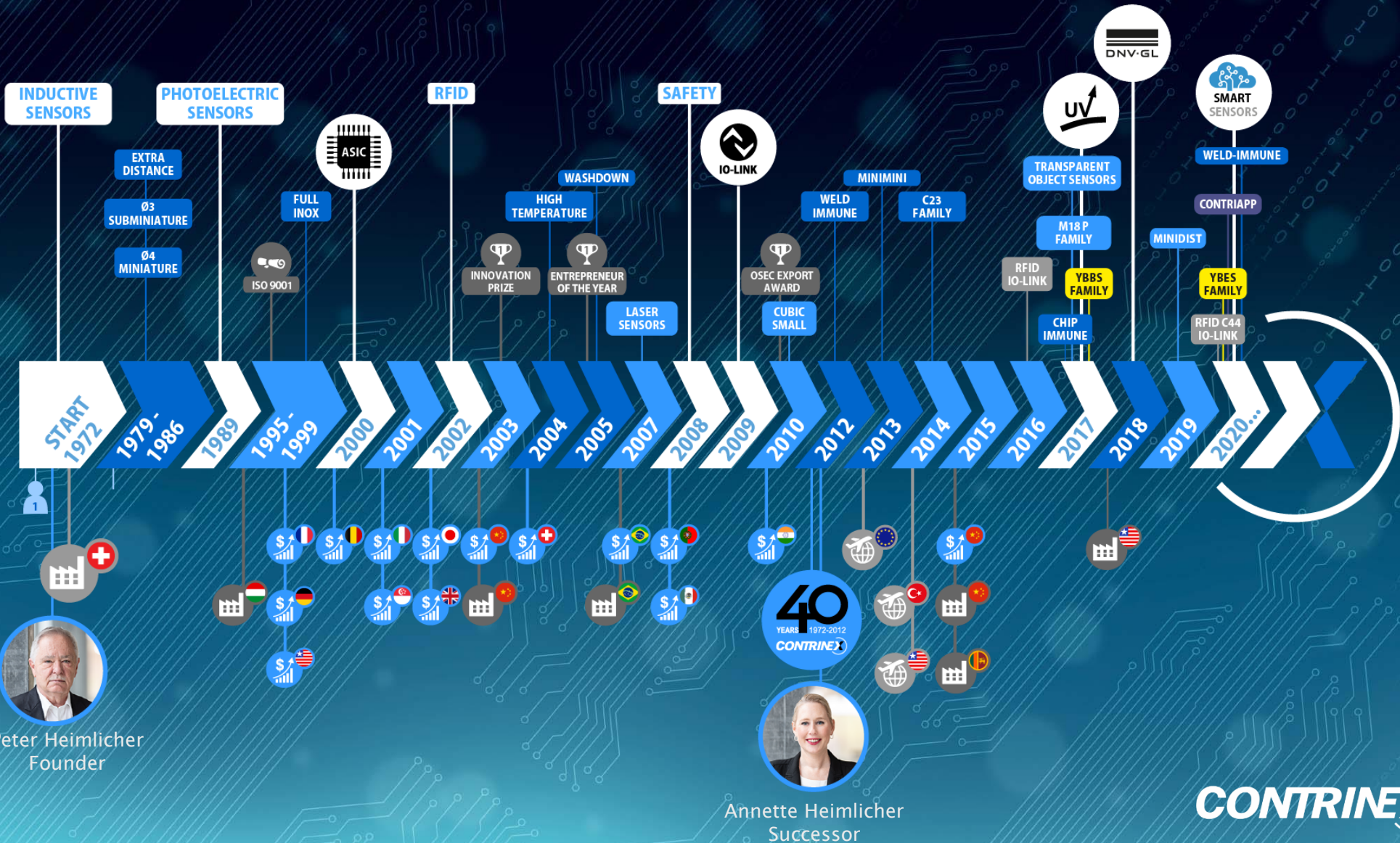
ASIA

- Dubai

THINK GLOBAL, ACT LOCAL

CONTRINEX

CONTRINEX HISTORY



GLOBAL PRESENCE

CONTRINEX SUBSIDIARIES



EUROPE				AFRICA	THE AMERICAS	ASIA	AUSTRALASIA	MIDDLE EAST
AUSTRIA	FRANCE	LUXEMBOURG	SLOVAKIA	MOROCCO	ARGENTINA	CHINA	PHILIPPINES	ISRAEL
BELGIUM	GERMANY	NETHERLANDS	SLOVENIA	SOUTH AFRICA	BRAZIL	INDIA	SINGAPORE	United Arab Emirates
CROATIA	GREAT BRITAIN	NORWAY	SPAIN		CANADA	INDONESIA	TAIWAN	
CZECH REPUBLIC	GREECE	POLAND	SWEDEN		CHILE	JAPAN*	THAILAND	
DENMARK	HUNGARY	PORTUGAL	SWITZERLAND		MEXICO	KOREA		
ESTONIA	IRELAND	ROMANIA	TURKEY		PERU	MALAYSIA		
FINLAND	ITALY	RUSSIAN FEDERATION	UKRAINE		UNITED STATES	PAKISTAN		

OUR VISION

WHEN IT'S DIFFICULT IT'S OUR JOB

Global leader for sensors and systems in the most challenging operating conditions

OUR STRATEGY

- ✓ Consistent and complete portfolio of products and systems for challenging operating conditions
- ✓ Global sales network with solution-oriented application support
- ✓ Impeccable Swiss quality for our products and systems
- ✓ Regional supply-chain hubs for delivery within days to our customers
- ✓ Open, entrepreneurial and responsive company culture



OUR PORTFOLIO

NEW



SMART SENSORS

- ✓ High resolution distance measurement
- ✓ User-configurable outputs
- ✓ Embedded predictive maintenance features
- ✓ Direct Device-to-Device Communication
- ✓ User Defined Memory



INDUCTIVE SENSORS

- ✓ Practically indestructible full-metal sensors for extreme conditions
- ✓ Subminiature sensors with full-size functionality
- ✓ Sensors with 4x standard operating distance



PHOTOELECTRIC SENSORS

- ✓ Smallest self-contained subminiature sensors on the market
- ✓ Excellent suppression of light-colored backgrounds
- ✓ Highly accurate sensors for transparent objects



RFID

- ✓ High and low-frequency RFID systems
- ✓ Networkable through interface devices, RS485 connection or IO-Link
- ✓ Special tags: full-metal; high temperature (250 °C); embeddable in metal



SAFETY

- ✓ Type 4, PL e, SIL 3 light curtains and access control barriers
- ✓ Type 2, PL c, SIL 1 light curtains for hand protection
- ✓ Light curtains and barriers with IP65 & IP67 protection

CUSTOMERS AND INDUSTRIES



AUTOMOTIVE

Highly automated plants with stringent conformity requirements



FILLING & BOTTLING

Equipment requiring cost-effective, adaptable solutions



FOOD & BEVERAGE

High quality installations; food-safe sensors often required



GREEN ENERGY

Difficult environments. Requirements for reliable and durable components.



LOGISTICS

Fast moving systems requiring continuous, trouble-free operation



MACHINE TOOL

Harsh operating conditions, often with limited space



MOBILE EQUIPMENT

Servicing is difficult, so rugged, fit-and-forget sensors required



PACKAGING

Equipment requiring cost-effective, adaptable solutions



SPECIAL MACHINES

Equipment requiring cost-effective, adaptable solutions



TEXTILE

Industry requiring efficiency, reliability and world-class accuracy

INNOVATION EXTRA DISTANCE

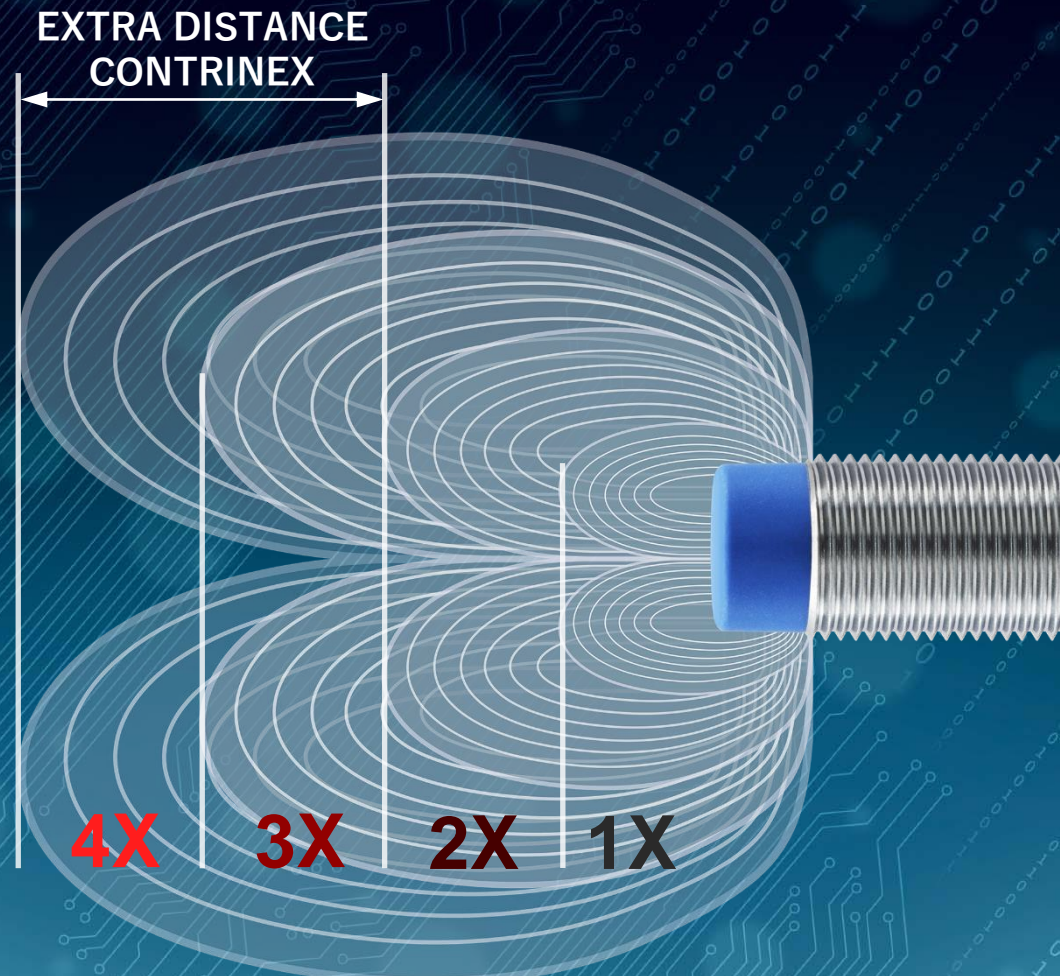
INDUCTIVE SENSOR WITH UP TO 4X STANDARD SENSING DISTANCE

Condist® Technology

KEY FACTS

Developed by Contrinex, this innovative technology permits longer sensing ranges and is used in our Extra Distance family (500 series)

- ✓ Excellent temperature and voltage stability
- ✓ Operating distances from 2.2 to 4 times the standard values
- ✓ Increased distance reduces risk of sensor damage
- ✓ Longer sensor life



CONTRINEX

INNOVATION FULL INOX SENSORS

THE TOUGHEST INDUCTIVE SENSOR IN ONE PIECE, FULL-METAL HOUSING

Condet® Technology

KEY FACTS

This cutting-edge technology is used in the Full Inox family (700 series).

- ✓ One-piece stainless steel housing (sensing face included)
- ✓ Long operating distances, including nonferrous metals
- ✓ Factor 1 on steel and aluminum
- ✓ Practically indestructible sensor



CONTRINEX

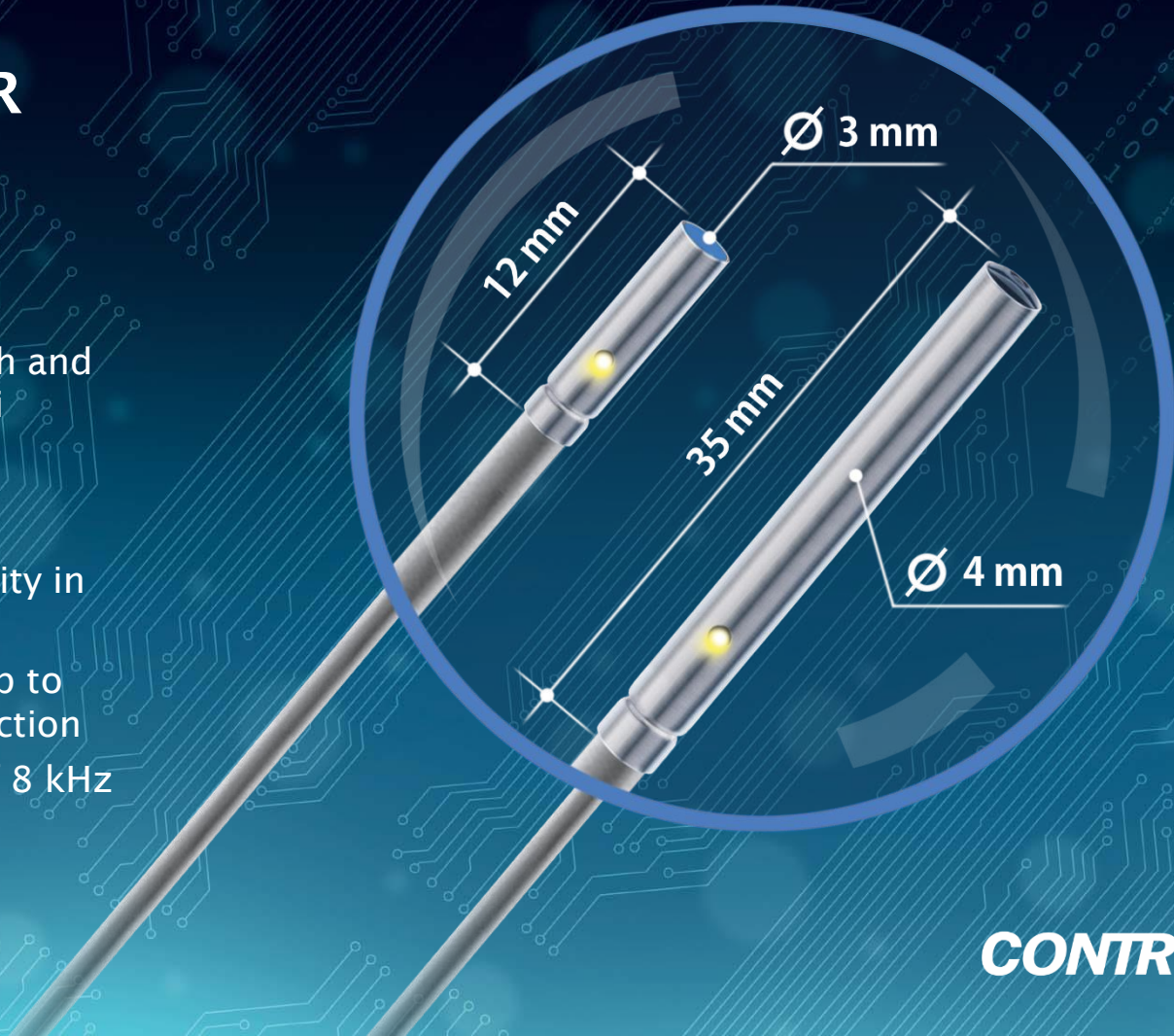
INNOVATION MINIATURE SENSORS

CONTRINEX MINIMINI THE SMALLEST INDUCTIVE SENSOR IN THE WORLD

KEY FACTS

Measuring just 12 mm in length and 3 mm in diameter, the MiniMini permits many new automation solutions.

- ✓ Excellent temperature stability in range -25°C to $+70^{\circ}\text{C}$
- ✓ Pressure-resistant version up to 200 bar, IP68 + IP69K protection
- ✓ High switching frequency of 8 kHz
- ✓ IO-Link



INNOVATION SMART SENSORS

MEASURE MONITOR
CONFIGURE PREDICT

KEY FACTS

- ✓ Digital measuring sensors fully compliant with IO-Link Smart Sensor Profile SSP 3.3
- ✓ Smart sensor with better sensing performance and noise immunity than conventional analog-output sensors
- ✓ Sensor behavior configurable via IO-Link parameters:
 - ✓ Measure distance in real-time
 - ✓ Monitor sensor distance over time, temperature
 - ✓ Configure switch-point thresholds, signal delays, counter threshold and alarm thresholds
 - ✓ Memory space for user data
- ✓ Predictive-maintenance ready:
 - ✓ Operating hours since first/last power-up
 - ✓ Sensor alarms
 - ✓ Sensor statistics



SMART SENSORS

MEASURE MONITOR CONFIGURE PREDICT



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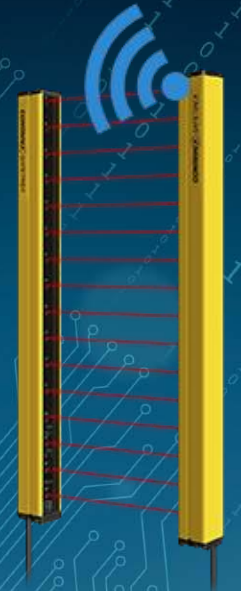
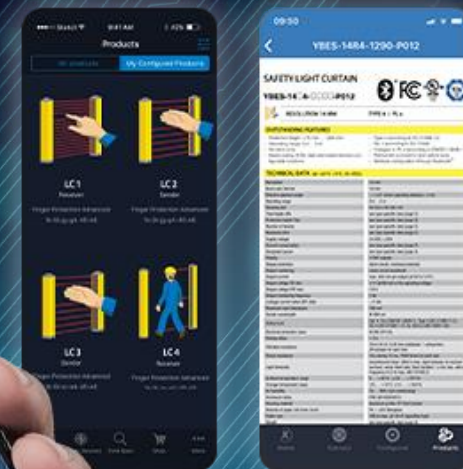
INNOVATION SAFETY EXTENDED SLIM

WIRELESS CONFIGURATION



KEY FACTS

- ✓ Wireless configuration and monitoring
- ✓ Configurable beam coding (3 channels), EDM function, and start/restart interlock
- ✓ Slim housing (26 x 26 mm) with M12 pigtail connector, IP65
- ✓ No blind zone even when mounted in L-shape
- ✓ Cat. 4, PL e according to ISO 13849-1
- ✓ Certified TÜV, CE and UL



INNOVATION WELD-IMMUNE SENSORS

REVOLUTIONARY PROTECTION FOR LONG-LIFE

KEY FACTS

- ✓ Activstone™ coating on all external surfaces resists weld spatter in spot, MIG and MAG applications
- ✓ Contrinex sensors resist magnetic interference from medium-frequency weld fields, current up to 15 kA
- ✓ With one-piece stainless-steel housings and Condet® technology, Full Inox sensors offer maximum impact resistance
- ✓ Activstone™ coated mounting brackets and spatter-resistant cable

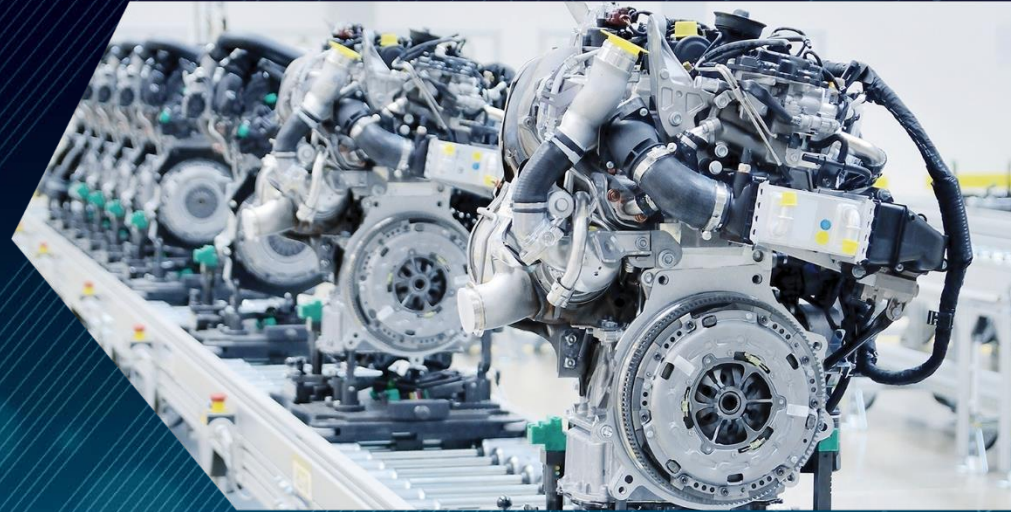


INNOVATION RFID WITH IO-LINK

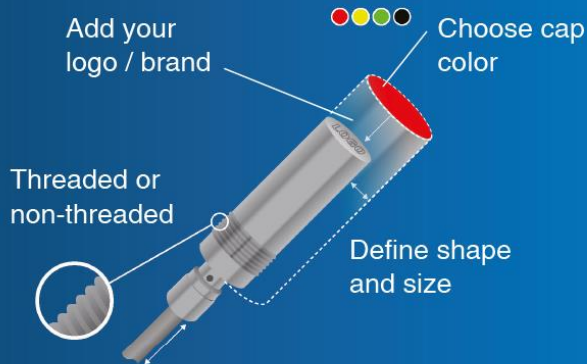
FAST DATA TRANSMISSION IN HARSH ENVIRONMENTS

KEY FACTS

- ✓ IO-Link protocol V1.1. with 10ms cycle time, 32 bytes PDI/PDO and data storage
- ✓ Contrinex's first IO-Link COM3 (230.4 kbaud) compatible product
- ✓ IO-link device: Quickly collects UID and READ/WRITE data records in 2 IO-Link cycle times
- ✓ Stand-alone SIO: Switching on tag presence, data comparison and various alarm conditions
- ✓ Temperature range -25 80° C (-13 176° F), integral S12 connector, IP67 (IP68/69K for C44)



SOLUTION CUSTOMIZATION



- ✓ Housing shape and size
- ✓ Cable length
- ✓ Embeddable / non-embeddable
- ✓ Threaded / non-threaded
- ✓ Selected technical characteristics

CUSTOMIZATION PROCESS



CUSTOMIZATION

Our team of specialists will personalize unique products to match your specifications, including customized product design and development.



PRODUCTION

4 global production sites located in Sri Lanka, China, Hungary & Brazil.



PACKAGING & BRANDING

We are equipped to meet your branding requirements for product color, packaging, labelling and logos.



QUALITY & CONTROL

Vigorous lab testing, pre-shipment inspections and compliance to market standards. We allow audits at all our production sites.



LOGISTICS

3 logistic hubs ensure fast worldwide distribution.



CUSTOMER SERVICE SUPPORT

Our dedicated team oversees all pre- and post-sale requirements.

SOLUTION ROBOT GRIPPERS

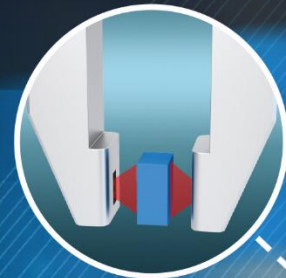
In Development

MINIATURE SENSORS

Customizable and Ready to Integrate

KEY FACTS

- ✓ Embedded miniature distance sensors ensure collision-proofing for gripper systems
- ✓ Designed for customizing, IIoT compatible
- ✓ Compact and light miniature sensors with IO-Link allows easy integration in tight spaces
- ✓ Sensing distances of up to 40mm offers designers highly versatile options when specifying equipment
- ✓ Industry-standard PNP analog output with a range of 0.3 to 3V allows scope for in-situ adjustment
- ✓ Precise, reliable and cost-effective



POSITION AND
DISTANCE CONTROL



OPEN/CLOSED POSITION
CONFIRMATION



ALL-ROUND COLLISION
PREVENTION



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TECHNOLOGY ASIC

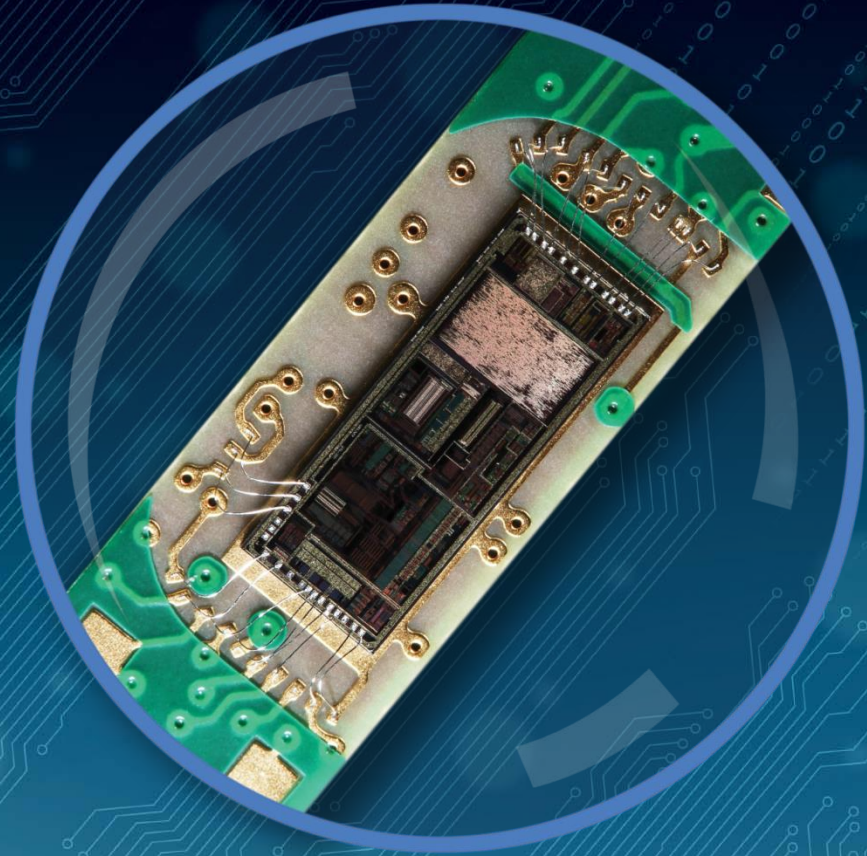
POWERFUL CONTRINEX ASIC

Leading in sensor ASIC
technology

KEY FACTS

Based on mixed signal CMOS technology,
our ASICs are specifically developed by
CONTRINEX engineers for CONTRINEX products

- ✓ Reduction of components
- ✓ Longer sensor lifetime
- ✓ Minimal tolerances (calibrated sensors)
- ✓ Outstanding temperature stability (digital compensation)
- ✓ Guaranteed operating distances ($S_r = S_n$)
- ✓ IO-Link at no extra charge (PNP)
- ✓ EMC stability
- ✓ Random emission technology (photoelectric sensors)



TECHNOLOGY INDUSTRY 4.0

LIVE SENSOR DATA FOR IOT

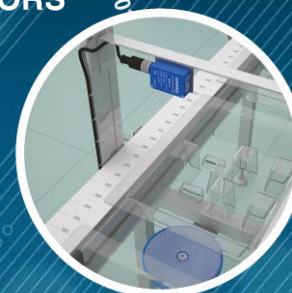
SMART COMMUNICATION WITH CONTRINEX SENSORS

- Continuous monitoring of process data
- Continuous diagnosis of sensor status
- Comprehensive dashboard for overview and predictive maintenance
- Plug & play solution compatible with greenfield and brownfield applications
- Data sent to the cloud with wireless signal (no need for PLC)

CLOUD ANALYTICS



IO-Link SENSORS



INDUCTIVE SENSORS

PHOTOELECTRIC SENSORS

RFID

CONTRINEX

IO-LINK FUNCTIONALITIES

LIVE SENSOR DATA FOR IOT

IO-Link is the first worldwide standardized IO technology (IEC 61131-9) to allow communication with sensors and actuators

 INDUCTIVE SENSORS

 PHOTOELECTRIC SENSORS

 RFID

 <p>DATA MONITORING</p>	  	 <p>NO/NC SELECTION</p>	 
 <p>DIAGNOSIS</p>	  	  <p>SENSITIVITY TEACH</p>	 
 <p>DETECTION COUNTER</p>	 	 <p>LIGHT ON/DARK ON</p>	
 <p>TEMPERATURE</p>	 	 <p>SENSOR MODE</p>	 
  <p>DELAY STRETCH</p>	  	 <p>SEQUENCE SELECTION</p>	

CONTATTI

CONTRINEX *Italia Srl*

Viale Gandhi, 7 – 10051 Avigliana (TO)

T. 011 936 70 84 – 011 934 21 71

Mail: info@contrinexitalia.it – vendite@contrinexitalia.it

Web: www.contrinexitalia.com

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