

# PROGRAM OVERVIEW

## SENSORS since 1973

26



# SENSOR NEWS 2026

## Smart Camera 3D

Compact Smart Camera 3D that uses Time-of-Flight technology for depth measurement and has built-in image processing. The camera captures 3D images in real time, applies internal algorithms and evaluates scenes in real time according to customer-defined parameters, providing a clear pass/fail result for each inspected part. No external lighting or processing computer is required.

### Become your own vision integrator

The camera makes advanced industrial vision accessible for many new applications. Cost-effective solution where the user can configure the device themselves via a mobile app without coding or technical expertise.

### Built-in intelligence

The camera has pre-installed application settings e.g. measuring multiple distance zones, checking if an object is complete and measuring object size. With our code-free app, the user can quickly and easily set all this up - completely without programming. The configurations can be saved and reloaded via IO-Link, which allows the camera to work stably and without interruption in the workflow. The app is available in the usual app stores and works on both smartphones, tablets and laptops.

- Built-in image processing, instant results without a computer
- Plug & Play installation with standard cabling
- Configure with a code-free app on any device
- Built-in user-ready applications

### Application example:

*In a logistics warehouse, it is important to ensure that the boxes are properly filled, with correctly positioned goods without protruding parts. This allows the boxes to be stacked safely on warehouse shelves without the risk of damage or instability.*

*In the first image, the tennis racket is visible protruding from the box, indicating a potential stacking problem.*

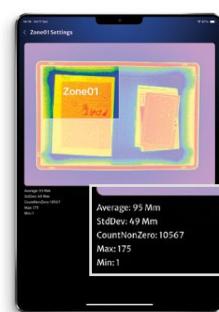
*In the second image, all items are correctly positioned inside the box, confirming that it can be stacked safely in the warehouse.*

Smart Camera 3D enables reliable positioning, distance and level control in real time, ensuring efficient stacking, safe storage and smooth warehouse operations. The solution prevents product damage and reduces the cost of manual checks.

### Smart Camera 3D, CAM-3TIQC-C99S-SF-A

Compact ToF camera with IO-Link and Ethernet. Built-in image processing and pre-installed application settings.

- Working range 300...7500 mm
- Frame rate up to 20 FPS
- Laser class 1, IR 850 nm
- 2 outputs PNP/NPN
- Resolution QVGA (320 x 240)
- Code-free app, no programming required



### DEEneo, LVDT-amplifier

Improved signal processing. LVDT position sensors have a non-contact sensing principle with minimal wear and long service life.

- Built-in microprocessor
- 16 bit resolution
- PC interface
- USB connection



# SENSOR NEWS 2026

## esf+1 - The fastest ultrasonic label sensor of its time

Label reader with slim and robust sensor housing. The fork housing is made of a high-tech plastic with metal-like properties. The flat sensor surface makes cleaning easier, an advantage in environments with paper dust or adhesive residue. Rotatable M12 connector, perfect for tight installation spaces.

Simple teach-in programming for quick and reliable learning of the current label material with a single push of a button. The integrated IO-Link interface allows the sensor to be easily integrated into existing systems. Also suitable for transparent materials and can be used in dusty environments.



## M5 Photoelectric sensors with sapphire lens

Focusing optics with IR light provides a narrow cylindrical detection area and enables precise detection in confined spaces.

Sapphire lens, designed to provide excellent optical performance even in dusty or abrasive conditions. Its surface is exceptionally resistant to wear and scratches, while being easy to clean. High switching frequency up to 2.5 kHz with three programmable modes "fine", "normal" and "fast" selected via IO-Link.



## Weld-proof inductive sensor in miniature format

Ultra Weld Miniature Flat Pack - Delivers unwavering performance in the most demanding welding applications.

Ideal for tight spaces and high-intensity environments. Its impact-resistant stainless steel housing ensures long-term reliability, even under repeated stress near weld lines and robot movements.

Advanced ActivStone™ coating provides superior protection against weld spatter and thermal exposure. Withstands temperatures up to 200°C, 260°C when combined with PTFE protective tubing.



## Panel indicator, ITP17

Universal 3-color display green/yellow/red with selectable thresholds for color change and flashing function. Programmable with buttons or PC via micro-USB and free software. Protection class IP65 (front).

- Input for: 0-5 mA, 0(4)-20 mA, 0(2)-10 V, RTD and thermocouple
- Easy mounting in a Ø22.5 mm hole



## Float switches for drinking water, C1CDW-10M

Quality float from Kari-Finn OY. Third-party tested and approved for drinking water applications.

- Ø99 mm float switch
- Changeover NO+NC
- 10 meter TPU cable other models on request.



# SENSOR NEWS 2026

## Japanese performance – now in Sweden

Thanks to our new collaboration with a leading original manufacturer, we can now offer laser sensors and IO-Link masters with performance far above the norm. The manufacturing takes place in Japan and meets the highest demands for quality and precision.

**OPTEX FA CO., LTD** has been developing photoelectric sensors since 1985 and has its headquarters in Kyoto.

With deep technical expertise, innovative development and long experience from collaborations with one of the largest sensor suppliers, OPTEX has created its own trademark – **FASTUS**.

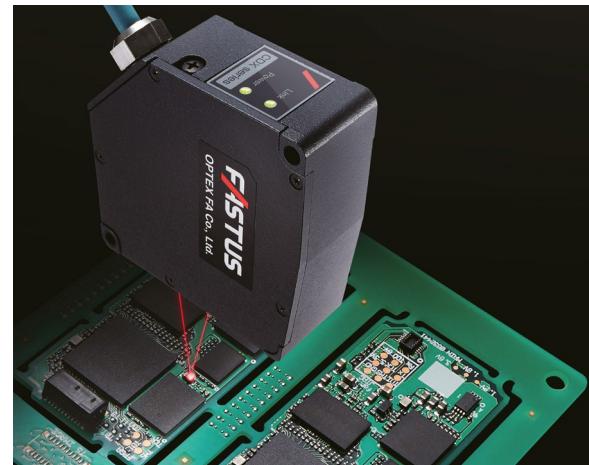


## CDX Series

- **World's number one with unmatched linearity,  $\pm 0.015\%$  F.S.**

Laser sensor with a blend of extremely high precision and ease of use. Robust sensor with advanced optics enables stable high-speed measurements with ultra-high accuracy.

By applying the latest technology, ATMOS image sensor with light-receiving element adapted for CDX, the accuracy has been increased 3.3 times compared to conventional sensor principles. With an advanced algorithm, response delays are eliminated and real-time measurements are possible.



## IO-Link Master

- **Ultra-fast IO-Link Master with 16 multifunctional ports**

One of the fastest IO-Link masters on the market with only 0.3 ms cycle time between master and device (standard is approx. 1...2 ms). High-speed counter, 250 kHz. Very compact size, only 110x63x45 mm. Mounting on 35 mm DIN rail. Quick terminal connection provides flexible and economical wiring in the right length.



IO-Link

## Non-contact thermometers

Advanced IR pyrometer with separate sensor head. Built-in ring laser pointer whose diameter visually indicates the measurement field of view.

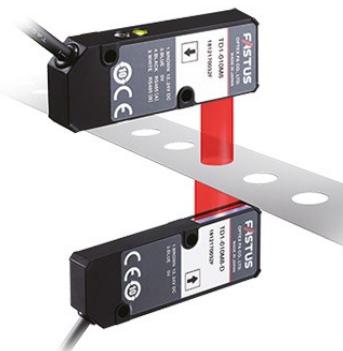


- High-speed measurement with high accuracy
- Response time below 50 ms
- IO-Link, digital values without analog conversion



## Laser area sensor, TD1-010M8

- $\pm 4\mu\text{m}$  repeatability
- Problem solver for many applications.
- 10 mm measuring range.
- The transmitter and receiver can be placed up to 300 mm apart.



# IO-Link

Together with Contrinex, Optex and several other suppliers, we can offer a complete range of sensors with the latest IO-Link technology. IO-Link is a standardized interface used to create more efficient automation by simplifying installation, maintenance and communication between sensors and control systems.



IO-Link has become popular as it is a cost-effective way to collect process data from multiple devices regardless of manufacturer. Affordable sensors and standard cabling provide low installation costs. The system can handle and process a large amount of live data for diagnostics and preventive maintenance. Data is collected to monitor the long-term behavior of the equipment and alarms for abnormal values. Predictive maintenance saves costs and reduces downtime.

## SMART DIGITAL MEASUREMENT SENSORS (DMS)

Inductive and optical sensors with high-resolution digital measuring signal via IO-Link live data. High-speed outputs (SIO). IO-Link Smart Sensor Profile 4.1.1 Version 1.1



## Temperature sensors, IO-Link

- Three operating modes: IO-Link, 4-20mA loop-powered or digital output with alarm thresholds (SIO). Smart Sensor Profile 3.1.
- Programmable: NO/NC, PNP/NPN, time delay, hysteresis and window area. RGB LED with selectable color.
- Probe in stainless steel, AISI316L



## Encoder, now with IO-Link

Complete series of absolute encoders. Robust design with magnetic principle. Smart Sensor Profile 2.8, 4.2.1 and 4.2.2.

- Single-turn 16 bit
- Multi-turn 43 bit
- EnDra® technology without battery or gears



After 50 years, we are still the world leader in inductive sensors. We provide both standardized standard sensors and special models with performance beyond the ordinary. The sensors have the highest price-performance ratio. With large inventories in Sweden, we can offer fast deliveries.

## Mini

Contrinex was the first to manufacture sensors in the dimensions M5 and also Ø3 mm and can now offer a very wide range of miniature sensors.

## Long sensing distance

In the early 80s, CONDIST technology was introduced and we were the first to present 3 times the standard sensing distance. Even though the patent has expired, we are still one step ahead when it comes to accuracy and operational reliability throughout the entire temperature range.

## Steel front, 700 series

The next development phase, CONDET technology means extremely impact-resistant homogeneous stainless steel front and long sensing distance without reduction factor. Today, we can offer a complete series from Ø4 mm to M30 with IO-Link included.

- Full inox one-piece construction, AISI316L
- Weld immune. Protected against magnetic fields and spatter
- Marine approved, DNV-GL
- Chip immune, for metal cutting processing
- High pressure, can withstand pressure spikes of 1000 bar



## Applications: IO-Link

### Nut Detection, Avoid Scrap

Welding nuts are used as mounting points in sheet metal parts. Without a reliable sensing system, missing nuts can go undetected and defective parts are scrapped. Inductive DMS Smart Sensors confirm the presence or absence of nuts in real time with high reliability. With the handheld PocketCoder, it is easy to configure the sensors for different fixtures, without detailed knowledge of coding and IO-Link.



### Double Sheet Control for Pressed Metal Panels

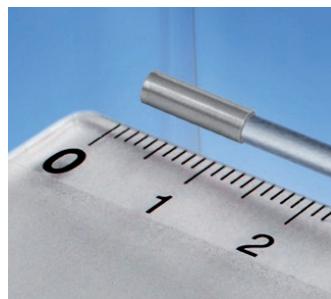
The need for increasingly thinner steel and aluminum sheets makes it more difficult to detect double sheets, increasing the risk of expensive tool damage. Inductive Smart Sensor detects unwanted relationships between single and double sheets and alerts before damage occurs.



## Mini: Ø3, M4, Ø4, M5 & 5x5mm

Smallest in the world! Mass-produced standard sensors and models with extremely long sensing distance, up to 2.5 mm.

- Ø3x12 mm, Sn:1 mm, temperature stable to -25° C, switching frequency 8 kHz
- Ø4 mm & M5 with 2.5 mm sensing distance
- Models for high pressures



## 700 series. All metal - Steel front / V2A

- Long sensing distance without reduction factor
- Extremely impact resistant

Sensing distance:

- Ø4, M5 up to 3 mm
- M8 up to 6 mm
- M12 up to 10 mm
- M18 up to 20 mm
- M30 up to 40 mm



## 700 Series – Rectangular Stainless Steel

Size 32x20x8 mm completely in stainless steel. Long sensing distance without reduction factor.

- Weld-proof with ceramic coating
- 7 mm sensing distance
- Marine approved DNV-GL



11

## Complete series - Analog signal

Sizes from M8 to M30, also 8x8 mm with long working range and high accuracy.

- Resolution from 0.1 µm
- 0-10 V and 4-20 mA output in the same sensor
- Working range from 0...4 to 0...40 mm
- Temperature stable



13

## High Pressure - 500 bar, peak pressure up to 1000 bar



Long sensing distance technology allows for a thicker ceramic face. Together with patented pressure relief, the sensors can withstand higher pressures and have a longer service life.

- Long service life, over 1 million cycles (MTTF) under pressure
- Sizes: M5, M8, M12 and M14

15

## Weld Immune - Now also with ceramic coating

Complete range with unparalleled performance. We can now offer several different model series.

- Immune to magnetic fields
- With or without ceramic coating
- With or without steel front
- Long sensing distance
- Resistant to welding spatter



17

## Test winner. Inductive sensors 40x40 mm

Flexible mounting with rotatable sensor front that can be turned in five different directions.

- Watertight and robust construction making it suitable for tough applications, IP69K.
- Quick release included for easy and quick installation
- Sensing distance: 15, 20, 30 or 40 mm

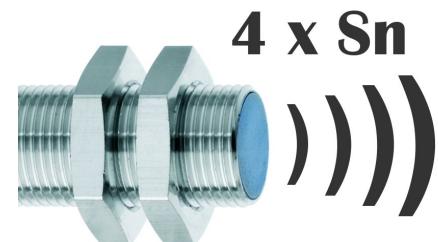


12

## Extremely long sensing distance, 500 series

Contrinex, the world leader in long-distance inductive sensors, has now surpassed itself. Condet technology with temperature compensation provides true sensing distance.

- Shielded M8  
Sn: 4 mm, 500 Hz
- Shielded M12  
Sn: 8 mm, 400 Hz



14

## Chip immune - for metal cutting processing

Detects most metal objects but is completely insensitive to their chips. M12, M18 or M30

- Steel front, completely made of stainless steel
- Temperature up to +85°C
- Protection class IP68 / IP69K



16

## Marine-approved inductive transducers

DNV-classified sensors designed for marine applications  
Ships - Submarines - Ports - Docks - Offshore - Fishing industry.

- DNV-GL
- Stainless Steel front
- High Pressure, 500 bar



18

We collaborate with Datasensing, formerly DIELL, which created the world standard for optical sensors in M18 housings, which is still perhaps the most sold and copied photocell series today. Contrinex and Optex are also strong original manufacturers of optical sensors, which means that we can offer market-leading products from three different brands.

The following principles are most common:

Diffuse. Direct sensing towards the object. Wide beam of light. Sensitive to the color of the object.

Reflex. Long distance together with a reflector. Also with UV light for transparent objects or polarized light suitable for shiny objects.

Background suppression with triangulation and diffuse principle. Accurate detection with a small light spot for short distance. Insensitive to the color of the object.

Through-Beam. Separate transmitter and receiver. Unbeatable in dirty environments or for very long distances.

Additional principles are Color- Contrast- Luminescence- Fixed focus- Laser- Fiber- etc.



## C23 Compact with high performance

Complete range of food-grade sensors. IO-Link included at no extra cost.

Sensing range:

- Diffuse up to 1.5 m
- Background suppression 10...300 mm
- Reflex 8 m
- Through-Beam 30 m



19

## M18 with compact housing

The sensors are produced with the latest ASIC technology with long adjustable sensing distance and protection against crosstalk.

- Bracket for flush mounting is included
- Angle mirror with 90° sensing is available as an accessory



20

## Mini photoelectric sensors in stainless steel, V2A

Extremely compact housing in Ø4 mm & M5 with built-in amplifier and high switching frequency. IP67

- Calibrated sensing ranges
- Selectable switching frequency: 1 kHz (normal, default), 500 Hz (fine) or 2.5 kHz (fast) via IO-Link



21

## UV light for transparent objects

Patented UV technology detects even difficult transparent objects. The sensor can also handle irregular shapes and plastic film at angles.

- Packaging and food industry, Ecolab
- 1200 mm against UV reflector.
- Selectable switching frequency and response time via IO-Link



22

## Food-grade laser distance sensor, IP69K

Measures up to 5 m with high reading frequency, 500 Hz. Universal output with both PNP/NPN and 4-20 mA signal.

- Compact, 50x50x23 mm
- Fast response time, 2 ms
- ECOLAB, IP69K
- Temperature down to -40°C



23

## Fiber optics

3060/3066 programmable amplifier for DIN mounting

- High switching frequency, 4 kHz
- Adjustable pulse delay and stretching. Also with display and IO-Link

Affordable cuttable synthetic fibers. Suitable for tight spaces and accurate detection.



25

## High-performance contrast scanner

Designed for packaging machines, printing houses, etc. Optics with both red, blue and green light, the sensor automatically selects the light that provides the best contrast for your application. High switching frequency, 10 kHz.



## Color sensor that can handle small nuance differences

FTS-4155-30x detects up to 3 colors (3xPNP). Setting is easy with teach-in and five selectable tolerance levels for each color. Working range 30...40 mm. 4 kHz.



27

## Material control and identification. Plastics industry

Advanced color sensors for quality control of recycled plastic and material identification.

Color sensors inline or for laboratory use.

NIR (Near InfraRed), plastic identification.

Luminescent inorganic particles in micrometer size are illuminated and identified based on the time for light decay and particle position in the plastic material.



29

## TOF-DL Laser sensor Time of Flight

Laser sensor in extremely compact size, 33x39x17 mm.

- Working range 0.25...2.5 m
- Built-in 3-digit LED display
- IO-Link & Push-Pull PNP/NPN



24

## Area sensor, CX series, analog measurement

Suitable for objects with large position spread or as ejector control. Detection height 160 to 960 mm.

**CX2**, transmitter-receiver with analog signal 4-20 mA and high resolution, Ø1 mm.

**CR**, area sensor with reflector, 70 or 150 mm detection height, Ø6 mm resolution. IP67



26

## Transmitter-receiver for harsh environments

Extremely dense sensor specially developed for car wash applications. Strong and wide beam light that can withstand dirt, water mist and makes alignment easier.



28

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Advanced color sensors for quality control of recycled plastic and material identification.

Color sensors inline or for laboratory use.

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Luminescent inorganic particles in micrometer size are illuminated and identified based on the time for light decay and particle position in the plastic material.

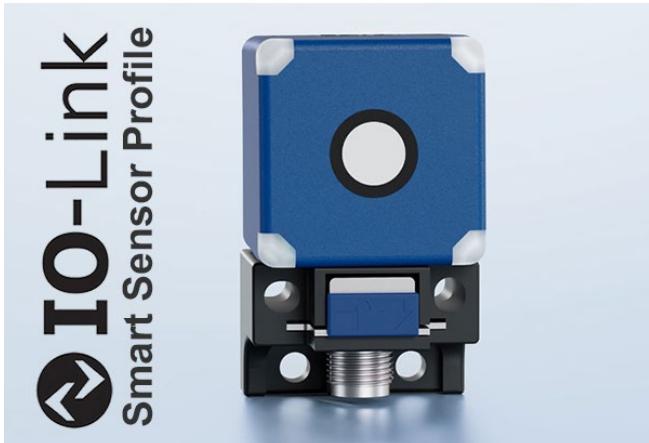
## Laser sensors with Japanese performance

High-performance triangulation laser sensor with extreme accuracy and compact size.



30

**Microsonic GmbH** from Dortmund, is a world-leading manufacturer of ultrasonic sensors. Their most well-known sensors are mic+, M30 sensors with display that can handle many applications where others fail. Together with Microsonic we can also offer many special variants, such as mini sensors, double sheet control and sensors for edge control. We also have pressure-tight and chemically resistant models that can handle 6 bar and have membranes with PEEK or PTFE coating.



#### CUBE, Versatile Ultrasonic Sensor

Compact sensor housing with rotatable sensing front. New filter function that provides outstanding adjustment possibilities in tight spaces, plus it has an alignment aid for optimal mounting.



#### LCA-2, PC-Interface

Programming tool for Microsonic's ultrasonic transducers. Easy programming and simulation with a computer. The tool has a display and memory function. Settings can be saved and copied, also includes a data logger function. USB connection.

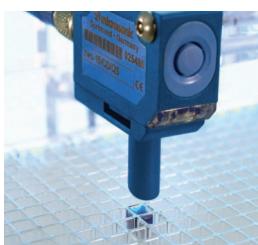
#### zws, complete series of mini ultrasonic sensors

Compact size, 20x32x12 mm. Easy programming, with only one button. Sensing distance up to 700 mm.



#### "Soundpipe"

Accessory that provides a very narrow detection field and makes it possible to detect through small holes and narrow bottlenecks down to Ø3 mm.



31

#### pico+, 4 working range up to 1.3 m



Short M18 sensor housing in chrome-plated brass. Four working ranges from 20...250 up to 120...1300 mm. Straight or angled sensing. Programmable via PC and LCA-2 or teach-in by wire.

- Resolution from 0.069 mm
- Synchronization of up to ten sensors. IO-Link

33

#### nano, M12 ultrasonic sensor,

Extremely compact cylindrical sensor with 250 or 350 mm sensing distance. Programmable (teach-in by wire or via LCA-2) working range and rising or falling signal



- Size only M12x55 mm
- Analog or digital signal
- Protection class IP67

32

#### pico+TF, M22 in chemically resistant PVDF

Extremely durable ultrasonic sensor with PVDF housing and PTFE-coated diaphragm. Suitable as a level sensor in aggressive liquids. Pressure-tight up to 0.5 bar.

- IO-Link
- Protection class IP67
- Teach-in by wire or via LCA-2



34

**Steel front, AISI 316L**

M18 & M30 ultrasonic sensors. The sensor housing including the front is made entirely of stainless steel AISI 316L, which makes it extremely tight and chemically and mechanically resistant. Suitable for the food, beverage, chemical and medical industries. ECOLAB, IP68 & IP69K.

35

**mic+, communicable sensor**

Advanced M30 ultrasonic sensor with display. Easy programming with two buttons or LCA-2. Sensing distance up to 8 m.

**crm+, for demanding applications**

Similar to mic+ but with 316L housing and PEEK-coated diaphragm.



37

**lcs+600, rectangular with long sensing distance**

8 m sensing distance in a very compact housing.  
Size: 62x62x37 mm

- Resolution 0.18 mm
- Teach in via buttons or LCA-2
- IO-link



39

**bks+, analog edge control**

Precise measurement with < 0.1 mm resolution. Fork ultrasonic sensor with analog signal proportional to shading. IO-Link.

- 4-20 mA and 0-10 V
- 12 or 35 mm working range
- Suitable for transparent materials and dusty environments.



41

**UK series**

M18 sensor housing in impact-resistant plastic or stainless steel AISI 316L. Working range up to 2200 mm. IP67

- Analog or digital signal
- Teach-in programming
- cULus certified
- ATEX zone 2 & 22



36

**Microsonic's original. The obvious choice for harsh environments and vibrations.**

- Stone crushers
- Programmable with display
- Built-in filter, timer, hysteresis and more



38

**hps, pressure-tight with process connection**

Extremely durable ultrasonic sensor with housing in stainless steel, 316Ti and diaphragm with PTFE coating. Easy programming with two buttons or LCA-2.

- Pressure-tight, 6 bar
- G1" or G2" thread connection
- Also available in PVDF



40

**Double sheet control with ultrasonic, dbk+**

Compact M18 transmitter-receiver. Programmable with teach-in or via PC interface. Suitable for e.g. printing machines.

Senses the difference between one and two sheets of paper and alarms for double sheets and no sheet.

Handles paper weights between 100-2000 g/m<sup>2</sup>. Also suitable for laminates, plastic film, foil, thin sheet metal and printed circuit boards.



42

## Measure with wire!

Together with Waycon we offer a very wide range of wire sensors. An easy way to measure and control axial movements.

### SX series

- Measuring ranges from 0-50 mm up to 0-42.5 m.
- Coating, marine applications
- Low temperature version, -40°C
- 0...10 V, 4...20 mA, Potentiometer
- TTL, HTL, SSI, Profibus, CANopen, EtherCAT, Profinet

### GX200

- Multifunctional wire sensor for extremely harsh environments

Measuring ranges from 0-3 to 0-12 m. Suitable for mining, vehicles and marine applications. The sensor is available with built-in inclinometer and speed output.

Redundant position signals, SIL 2 according to DIN EN 61508 and PL d according to EN 13849-1.

Protection class up to IP69K. Temperature range -40...+85°C.



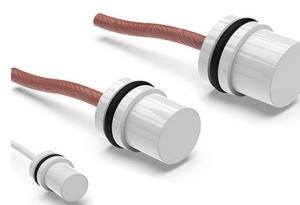
### Angle sensor

Angle sensor with non-contact detection 0-360°. Robust metal housing Ø39x12.5 mm, IP67. Including magnetic screw.



### Eddy Current

Fast, accurate and non-contact measurement against metal. Models for turbo with max. speed frequency 150 kHz.



43

### MH 60/120. Extra robust model series of wire sensors

Wire thickness up to Ø1.5 mm. Redundant signal. CANopen etc. - High pressure washdown, IP69K



45

### Encoder head with magnetic tape measure

Non-contact position sensor with high resolution, up to 1 µm. Incremental pulses, IP67



### Encoder head with magnetic tape measure

Non-contact position sensor with high resolution, up to 1 µm. Incremental pulses, IP67



44

### LVDT - Measuring probe

Ideal for measuring under difficult conditions. Withstands pressure, dirt and high temperatures. Working range up to 600 mm

- Linearity down to 0.01%
- IP68/IP69K
- max 150°C



46

## Encoders beyond the ordinary

Together with Wachendorff we offer a complete range of encoders and encoder accessories.

Absolute encoders with IO-Link, SSI, CANopen, RS485, Profibus, Profinet, EtherCat etc. 16 bit resolution, multi-turn 43 bit. Endra technology without battery or gears.

Incremental with optical or magnetic principle. Resolution up to 25,000 PPR, also programmable models.

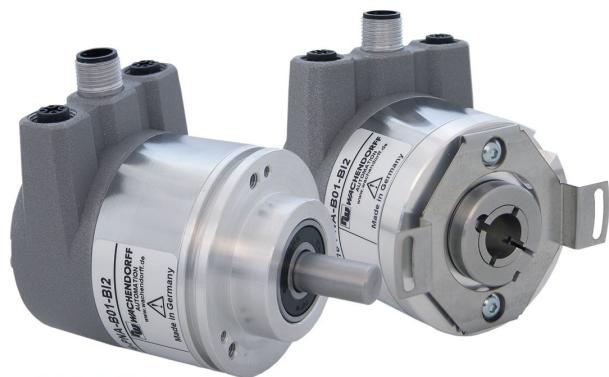
Models in acid-resistant steel with high protection class, suitable for marine and food applications.

## Ready-made measuring systems

Complete system with encoder, measuring wheel and robust bracket with adjustable spring force. The measuring wheels are available with several different friction surfaces to provide safe and accurate measurement on most materials.

## Easy setup with NFC

Contactless programming via mobile phone/NFC. Selectable resolution up to 16,384 pulses per revolution. Adjustable spring force 0-20 N in 5N steps. Measuring wheel with 150 or 200 mm circumference. HTL/TTL, ABN + inv., IP65/67, max 12,000 rpm. M12 8-pin connector.



**PROFINET**

**EtherCAT**

**EtherNet/IP**



# CAPACITIVE SENSORS

## KAS-80-A21-S-Y7

M8 capacitive sensor with stainless steel sensor housing and PTFE sensing face.

"High Performance technology" with long sensing distance 0.5...4 mm. Adjusted with potentiometer screw.



47

## C18-series



M18 sensor housing in thermoplastic/polyester with high protection class, IP68/69K and extended temperature range. Maximum EMC performance. Adjustable sensing distance with potentiometer screw. Antivolt output, NO+NC.

49

## Capacitive M12 with universal output signal



Compact sensor with 8 mm sensing distance. Shielded up to 4 mm and works as unshielded between Sn: 4...8 mm.

- Easy adjustment with teach-in button
- Universal output signal PNP/NPN NO/NC

48

## KAS-80-30/EM-S-ETW

Compact sensor Ø30x14mm with remote programming (Tech-in with the white wire). Protection class IP68.



## KAS-818555

Robust M32 sensor housing in stainless steel. "High Performance technology" with long sensing distance, 1...40 mm.



50

## Level sensors "Made in Sweden"

We have 50 years of experience in manufacturing level and temperature sensors. One of our specialties is float level switches with REED technology, the sensors have no own power consumption and provide great advantages in e.g. battery-powered applications, wake-up sensors and IoT. In addition, any number of switches can be connected in series or parallel.

Our own manufacturing provides high flexibility and great opportunities for customized models. High level of expertise and good collaboration with leading component manufacturers means that we can offer high quality products at competitive prices. The sensors are manufactured in our ISO-certified factory in Roslagen and are of the highest quality.



## HFNI - Customized level and temperature sensors

We customize the sensors according to your application and operating conditions. The sensor can be obtained with a built-in temperature sensor or overtemperature protection. Pt100, Pt1000, 4-20mA, NTC etc.

Junction box or customized cabling and contacting e.g. with M8, M12, Amp, Molex, Packard or Deutsch connector.

All HFNI receive a unique article number, documentation and have protected exclusive rights to sale. We welcome new inquiries!



Relay box      PTC-sensor      Deutsch connector      Terminalbox      Sucking pipe, SUS-316      HFNI-mix



### SUBVAKT

Float level switches in acid-proof steel with submersible cable. REED principle without own power consumption. Modular switches with flexible manufacturing and fast delivery times.

### Keep an eye on your hydraulic system

New series of extra robust level switches with built-in temperature sensor and easy-to-install display. Especially designed for monitoring the hydraulic fluid in mobile machines and vehicles.

- Made in Sweden
- IP67
- Built-in Pt1000



**HMFB-series**

Our most popular model. Multifunctional level switch with selectable level measurements and contact functions.

- Up to five functions, with or without temperature sensor or overtemperature protection
- Tight junction box with screw cap, IP67.
- Both flange and G1" thread provide two mounting options.



53

**HMF50HI-series**

Brass probe and NBR floats, adjustable G1" Very compact design with short riser and Ø50 mm brass flange.

**HMDHI-series**

Compact design with G1" thread connection.

Angle connector IP67, which can be mounted in four different directions.

55

**HMC1/2-series**

Very compact floats that can be mounted through a 1/2" hole.

- Adjustable G1/2" threaded connection that becomes fixed after tightening
- Fixed molded cable with free cable end

57

**HSFB-series**

Affordable model with probe and floats in acid-proof steel. Multifunctional level switch with selectable level measurements and contact functions.

- Water-tight junction box with screw cap, IP67
- Both flange and G1" thread provide two mounting options

59

**HMCB-series**

- Water-tight junction box with screw cap
- Protection class IP67

**HMCHI-series**

- Angled connector IP67, which can be mounted in four different directions.

Brass probe and NBR floats, adjustable G1" threaded metal connection that becomes fixed after tightening.

54

**HMCK-series**

Robust junction box in powder-coated aluminum. Available with adjustable thermostat.

- Flange and adjustable G1" thread connection
- With or without temperature sensor or overtemperatureskydd

56

**HSC3/8-series**

- Adjustable G3/8" threaded connection
- Withstands pressure up to 25 bar
- Ø57 mm float with high buoyancy

**HSCG1-28-series**

- Adjustable G1" threaded connection
- Withstands pressure up to 10 bar

Completely made of acid-resistant steel, SUS-316. Two meters of oil-resistant PUR cable, other cable lengths on request.

58

**HSCB1-series**

Adjustable G1" threaded connection that becomes firm and pressure-tight after tightening.

- All wetted parts in SUS-316
- Withstands pressure up to 10 bar
- Water-tight junction box with screw cap, IP67

60

**Level switches - Side mounted**

Proven REED technology with float and enclosed magnet. The level switches are supplied in the materials SUS-316 acid-resistant, polyamide, polypropylene and PVDF.

- Cost-effective with expanding gasket that self-sealing when tightened
- Robust in stainless steel, 1/2" thread and DIN-connector



61

**Capacitive level sensors with analog signal, 0-10 VDC.**

Analog measurement without moving parts. Suitable for oem applications in the hydraulic and automotive industries.

- For oils, fuels and coolants
- Working temperature -40...125°C
- Stainless steel 316.



63

**Radar**

Robust and compact FMCW radar sensor (122 GHz) in stainless steel and pressure-tight PEEK front. Working range up to 10 meters. Programmable via IO-Link.

- -40...+85°C
- IP67 & 69K
- 0/4...20 mA
- 2x push-pull
- IO-Link



65

**Float switches Ø30, Ø76, Ø99 and Ø170 mm**

Quality product for e.g. clean and waste water applications. We also offer "sinking" models.

- Models for pump control with weight and adjustable hysteresis
- Up to 4 functions in the same unit.

67

**Submersible pressure sensor with flush diaphragm, 316 L**

Stainless steel level probe and sanitary diaphragm. Kevlar reinforced PUR cable. Zero setting possible. Analog signal 4-20 mA.

- Accuracy 0.35 %
- Standard measuring ranges 0...3.5, 0...5 or 0...10 mWC
- MODBUS via RS485



62

**EL22 - Conductive level relay**

**Best seller for wells, pumping pits, ponds.**

Complete automation with built-in self-holding circuit for pump control or high or low level alarm. Incl. 2 pcs. electrodes.

- For water and electrically conductive liquids
- Direct control of single-phase pumps up to 0.37 kW
- Dry-running protection



64

**Grease and oil separator**

Easy to use oil separator with separator alarm. Ex-approved system complete with sensor and control unit.

**Labkotec**  
INDUSTRY GROUP



66

**Rotary paddle switch 230 VAC chips - granules - powder**

A built-in motor spins the paddle 1 rpm. When the paddle is slowed down by the material, a microswitch is activated. Adjustable spring force.

- Robust metal housing and 3/4" thread
- Protection class IP65
- 24 VDC on request



68

## Calorimetric flow sensor, 4-20 mA

Flow sensor without moving parts. Measures flow velocity from 3 to 300 cm/s. Wetted parts in stainless steel.

- LCD display and rotatable housing
- Media temperature -20...110°C
- Process pressure up to 40 bar.
- 4-20 mA + 2 x PNP, also available with relay and 230V supply



69

## Flow sensor with impeller and DIN connector

Affordable with high resolution up to 24,500 pulses/liter. Measures liquid flows from 0.1...2.5 to 5...65 l/min. Sensor housing in food-grade Trogamid or SUS-316, max 25 bar.



71

## Mass flow sensor for gases

Air flow sensor with advanced MEMS technology. Accurate measurement with short response time and compact design.

All-in-one sensor measures air flow, temperature and relative humidity.



73



## High performance - Flush diaphragm

Programmable pressure sensor with rotatable housing and 4-digit display, IP67. Measuring ranges from 0-400 mbar to 0-1000 bar

- G1/2" thread connection
- Media temperature - 40...100°C
- Accuracy 0.5 %
- 4-20 mA and 2x PNP



75

## Flow switches, minimal maintenance

Flow switch with floating body and graduated scale. REED principle without power consumption. Vertical mounting.

- Potential-free contact on adjustable rail
- Fluid flows from 0.1...1 to 5...60 l/min
- Also available in stainless steel



70

## Ultrasonic flow sensor

Contactless sensing without moving parts. All parts in contact with the media are made of PE-HD (Polyethylene). IP65

- Both pulse output and analog signal, 4-20 mA
- 1 pulse/ml, programmable <10kHz
- From 0.012...1.5 to 0.9...60 l/min
- Display: Nominal, total and batch control



72

## Pressure sensor with touch display

Programmable pressure sensor with robust stainless steel housing. Universal output signal: PNP/NPN/PP, 4-20mA/0-10V, IO-Link.

- G1/4" thread connection
- Rotatable TFT display
- Pressure ranges from 0...10 to 0...600 bar.



74

## PX-I, Pressure Sensor

Compact and robust pressure sensor in stainless steel. Suitable for general applications in e.g. industry and hydraulics. We stock the most common models and offer fast deliveries.

- High accuracy 0.5%
- Protection class IP65
- Output signal 4-20 mA



76

## Temperature sensor - Built-in amplifier, 4-20 mA

Very compact sensors with stainless steel probe.

- Many different models also with magnesium oxide insulation up to 500°C.
- Fixed or optionally programmable measuring range via PC interface
- Molded M12 connector, IP67



77

## Temperature sensor - High temperature

TRM with Ø3 or Ø6 mm bendable probe in acid-proof steel and magnesium oxide insulation, up to 500°C.

- Pt100, 4-wire, class A or B
- Fits modular amplifiers with M12 connector

TCSV12. Thermocouple type "K" with molded M12 connector and Ø3 mm probe. Vibration-resistant sensor that can measure temperatures up to 1150°C.



79

## In-Line Temperature sensor, TBT-P1AAX

PT100 3-wire with extremely fast response time <1s. Smooth inner channel in acid-proof steel provides free flow. Suitable for push-fit hose connection.

- G1/8" connection thread
- Max 20 bar
- M8 plug connection protection class, IP67



81

## IO-Link amplifier/converter

Three operating modes: IO-Link, 4-20 mA loop-powered or digital output with alarm thresholds (SIO). Smart Sensor Profile 3.1.

Separate amplifier that converts Pt100 and Pt1000 to IO-Link. Compatible with TRH, TRM and TRC series.

Programmable: NO/NC, PNP/NPN, time delay, hysteresis and window area. RGB LED with selectable color.



83

## IKE / IKS / IHS series - Pt100, Pt1000 or NTC, 150°C

Completely sealed temperature sensor with vulcanized thermoplastic probe. Also available with Ø6 mm protective housing in acid-resistant steel.



78

## DOL114-140262

High-performance humidity & temperature sensor that measures relative humidity and temperature. Suitable for demanding applications.

- Measuring range: 0-100% RH, -40...60°C
- Output signal, 2x 4-20mA
- High protection class, IP67



80

## Pyrometer, SA-80T-4A

IR temperature sensor with fast response time and wide field of view. Robust sensor housing with cylindrical housing and easy installation.

- Measuring range: 0...400°C
- Built-in amplifier
- 4-20 mA
- M18 sensor housing



82

## TRH series temperature sensor designed for IO-Link amplifiers IOCX & IOCMX

- Robust probe Ø8x120 mm, SUS-316
- Molded M12 connector
- High temperature version with silicone cable
- Made in Sweden



84

## M8 and M12 Sensor Cable at unbeatable prices



The cable is manufactured in Europe and is of very high quality. Large purchases directly from the factory without intermediaries allow us to keep extremely low prices.

- Molded female connectors in straight or angled design
- PUR or PVC cable standard length 2, 5 and 10 m

85

## SUBTERM - PTC Sensor & evaluation unit

In-house manufactured thermistor sensors with probe in SUS-316. Overfill protection in tanks and cisterns, suitable for most liquids. Compact control unit with high degree of protection, IP66. Supply voltage 230V.

- High level alarm, low level alarm or start-stop
- Built-in self-holding circuit
- Potential-free changeover relay output, max 250VAC, 500VA, 8A res., 2A ind.



87

## Sensors for pneumatics

Large range of pressure, air flow and cylinder sensors.



89



## Safety light curtains, category 2 or 4

- Finger, hand and body-access resolutions
- Protective heights from 142...1827 mm
- Operating range from 0.25...50 m
- Certified TÜV, CE and UL

## Safety sensors

Monitoring doors, hoods or covers

- Magnetically or RFID coded switches, up to Cat. 4
- IP6K9K, ECOLAB



91

## KR-EB2P - Universal relay unit 230V

- Built-in sensor supply 24VDC
- Three sensor inputs for PNP, NPN or mechanical contacts
- Dual relay outputs
- Built-in self-holding circuit for pump control, start-stop
- Protection class IP66



86

## Panel indicator

**MV+**, Universal instrument with 4-digit display. Can be easily supplemented with separate cards for the desired function.



**ITP11**, Easy-to-mount 4-digit display with 14 mm character height. Input for 4-20 mA. Moisture-proof front, IP65.



88

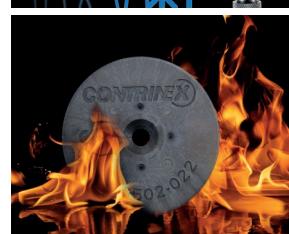
## RFID HF (13.56 MHz) High frequency RFID system

- Compatible with ISO/IEC15693
- Logical addressing up to 253 read/write units.
- High temperature tags, 250°C.



## RFID – completely in stainless steel Low frequency RFID system, 125 kHz

- RWM and tags with V4A steel front, IP68/69K
- Long read/write distance

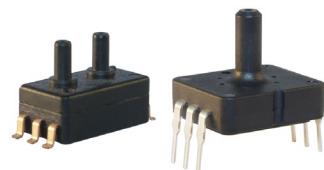


90

## Fujikura - Component Pressure Sensors

The pressure sensors are temperature compensated and are available with analog or digital output. Applications include medical, consumer products and industrial applications. Suitable for non-corrosive gases such as air and other dry gases.

- High accuracy  $\pm 1.5\%FS$
- Supply 3.0 / 3.3 / 5.0 VDC
- Operating temperature -40...125°C
- 0.5...4.5 V or I<sup>2</sup>C



92



**HEMOMATIK** has manufactured, imported and marketed sensors for Scandinavian industry since 1973. The fact that we have chosen to concentrate on sensors and not on other products that can be associated with electricity/automation has meant that we can today offer a very wide range, a high level of service and expertise in our field.

We cooperate with leading original manufacturers whose products are available globally under several other well-known brands. For machine builders, groups or in larger transactions, we can make both special agreements and global agreements.

#### In-house manufacturing

We have been producing sensors since 1973. One of our specialties is level and temperature sensors. The sensors are manufactured in our ISO-certified factory in Roslagen and are of the highest quality.



Head office and warehouse  
Skogås, Stockholm



Factory with production  
Östhammar



Sales Office  
Espoo, Finland

Some of our partners:



#### Can't find the sensor you are looking for?

Contact us, [teknik@hemomatik.se](mailto:teknik@hemomatik.se). We have many more sensors than we can show.

Do you use sensors from other suppliers?

We will be happy to investigate whether we can offer a better and more cost-effective sensor solution for you, let us know your requirements and wishes.



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