

# Accuracy counts!

SENSORS WITH ANALOG OUTPUT

**CONTRINEX**



**MAURICE LACROIX**  
Manufacture Horlogère Suisse





**OTHER APPLICATIONS:**

- ✓ Distance measurement
- ✓ Positioning
- ✓ Profile detection
- ✓ Deformation monitoring
- ✓ Vibration monitoring
- ✓ Process monitoring
- ✓ Detection of moving direction
- ✓ Regulated approach to end positions
- ✓ Observation of spring tension (e.g. conveyor belts, textile or wire machinery)
- ✓ Several switching points with only one device

**KEY ADVANTAGES:**

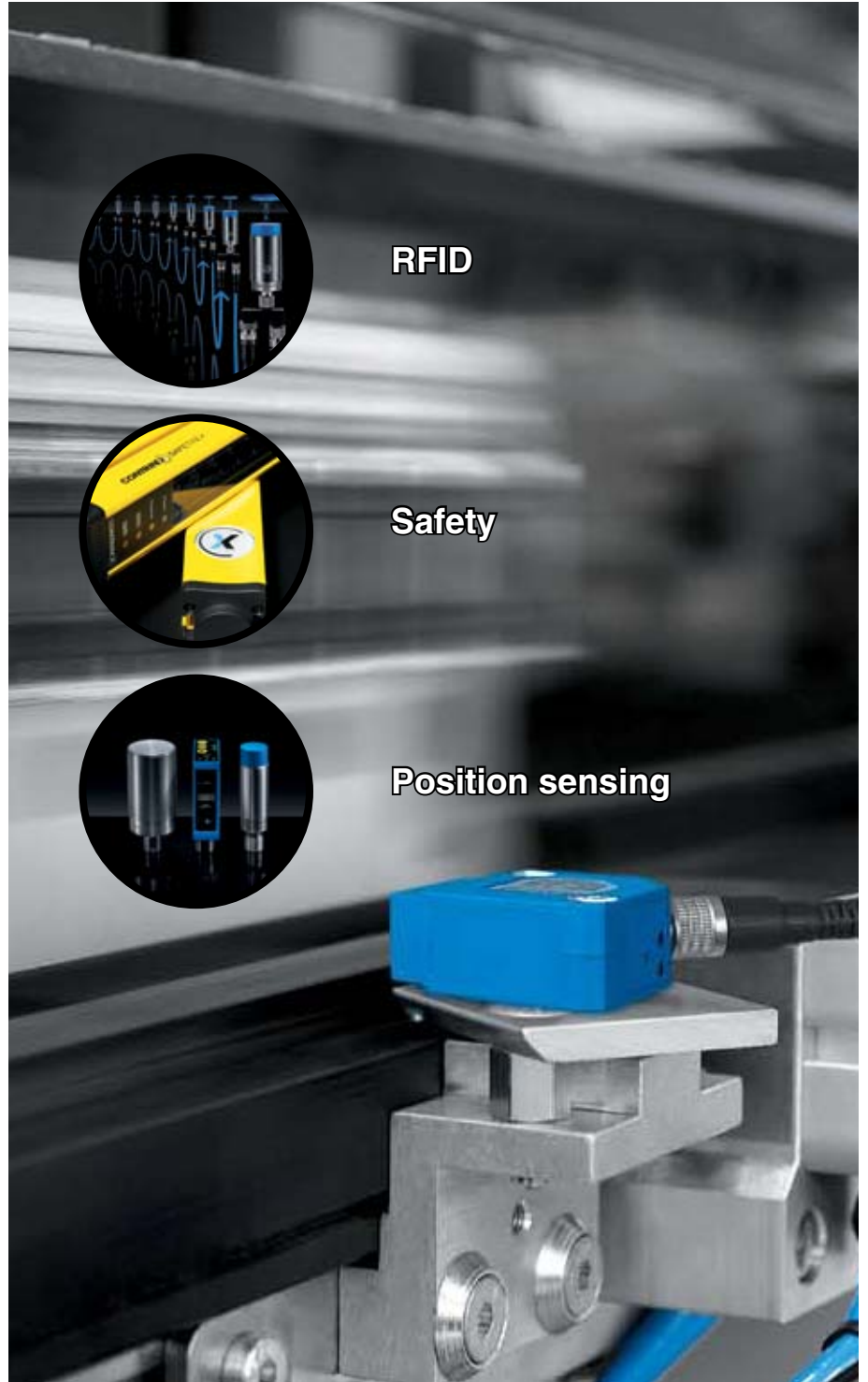
- ✓ High sensing range
- ✓ Resolution in  $\mu\text{m}$  range
- ✓ High repeat accuracy
- ✓ High temperature stability for widest temperature range
- ✓ Voltage and current output in one sensor
- ✓ Identification of various metals (ferromagnetic and non-ferromagnetic)



## COMPANY

Contrinex is a leading international high-tech sensor company with headquarters in Switzerland.

Contrinex offers quality and highly innovative sensing solutions for factory automation, including inductive and photoelectric sensors, as well as RFID and safety systems.



## OUR STRENGTHS ...

Inductive analog sensors are used wherever physical values, like distances, angles or different kinds of metal, have to be detected and changed into an electrical signal. With extraordinary performance, Contrinex supplies a highly valued and durable product which provides the solution of choice for many problems that could not be solved in the past.

## ... YOUR ADVANTAGES

### SENSING RANGES UP TO 40 MM

- ✓ Contrinex supplies the longest sensing ranges in the inductive analog market
- ✓ From 0-4mm in a M8 housing up to 0-40mm in a M30 housing
- ✓ Up to 250% higher sensing range than market standard
- ✓ Detection and identification of various metals

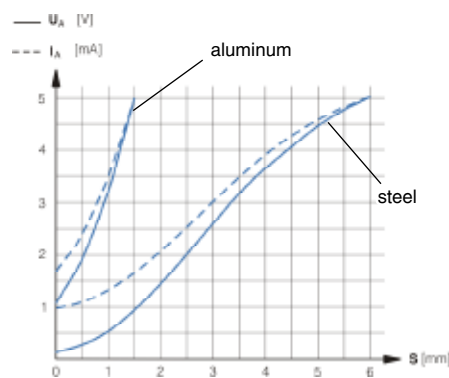
### BEST TEMPERATURE STABILITY

- ✓ Remarkable temperature range for the analog sensor market from -25°C up to +75°C
- ✓ Temperature drift  $\leq \pm 5\%$  for temperatures from 0...+70°C;  $\leq \pm 10\%$  for temperatures from -25...0°C



### EXCELLENT REPEAT ACCURACY

- ✓ High sensing stability
- ✓  $\pm 0.01\text{mm}$  long-term repeat accuracy ( $T_a = \text{const.}$ )



Response curve DW-A#-509-M12



Part positioning (special type: reduced distance between sensors)

### RESOLUTION $\leq 1\mu\text{m}$ (M8 AND M12)

- ✓ Detection of slightest movements
- ✓ Recognition of minimal vibrations
- ✓ Identification of concentric running

## APPLICATION EXAMPLES

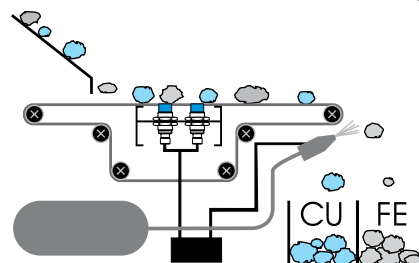
### METAL SORTING MACHINERY

#### REQUIREMENTS:

- ✓ Long sensing range
- ✓ Identification of different metals (ferromagnetic and non-ferromagnetic)
- ✓ High bandwidth for accurate and reliable detection of small and fast moving parts

#### ADVANTAGES FOR THE CUSTOMER:

- ✓ Cost effective solution
- ✓ Reliable and rugged system



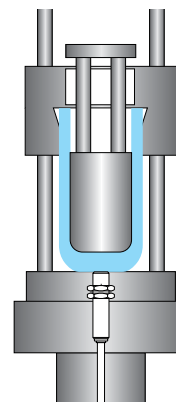
### MONITORING OF PROCESSES IN METAL WORKING

#### REQUIREMENTS:

- ✓ High resolution
- ✓ High repeat accuracy
- ✓ Long sensing ranges

#### ADVANTAGES FOR THE CUSTOMER:

- ✓ Secure process monitoring
- ✓ Early problem recognition
- ✓ In-tolerance control



### MEASURING OF SHOCK ABSORBER COMPRESSION (E.G. CITY TRAIN IN DRESDEN, GERMANY)

#### REQUIREMENTS:

- ✓ High temperature stability
- ✓ Reliable signal regardless of weather and temperature conditions
- ✓ High repeat accuracy

#### ADVANTAGES FOR THE CUSTOMER:

- ✓ Wear measuring device for shock absorber
- ✓ Control of track abrasion



## AVAILABLE PROGRAM

Standard outputs: 0...5 V / 1...5 mA or 0...10 V / 4...20 mA

All sensors available in connector or cable version.

$s_d$	Quasi-embeddable	Non-embeddable
M8	0 ... 4 mm	---
M12	0 ... 6 mm	---
M18	0 ... 10 mm	0 ... 20 mm
M30	0 ... 20 mm	0 ... 40 mm
C8	0 ... 4 mm	---



## ALL OVER THE WORLD

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