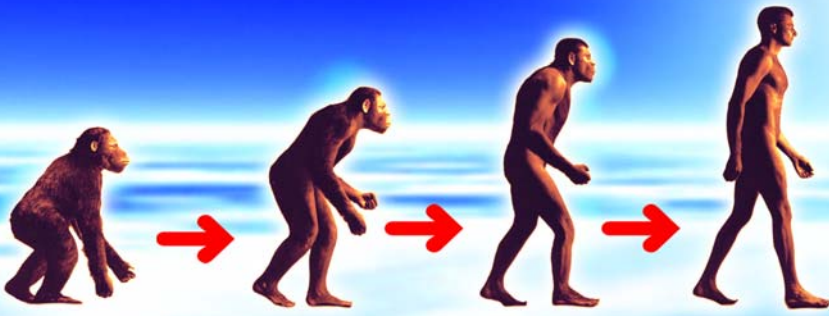
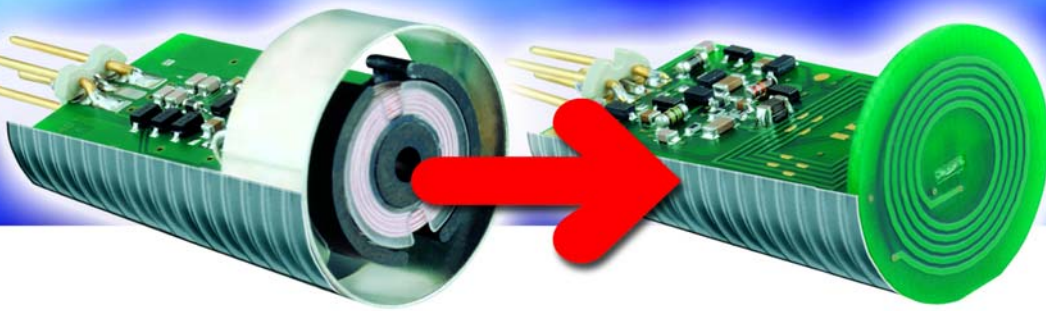


Evolution ...



... Revolution!



TURCK

Industrial
Automation

**THE NEW
GENERATION
OF INDUCTIVE
SENSORS**

**FOR THE FOOD &
BEVERAGE
INDUSTRY**

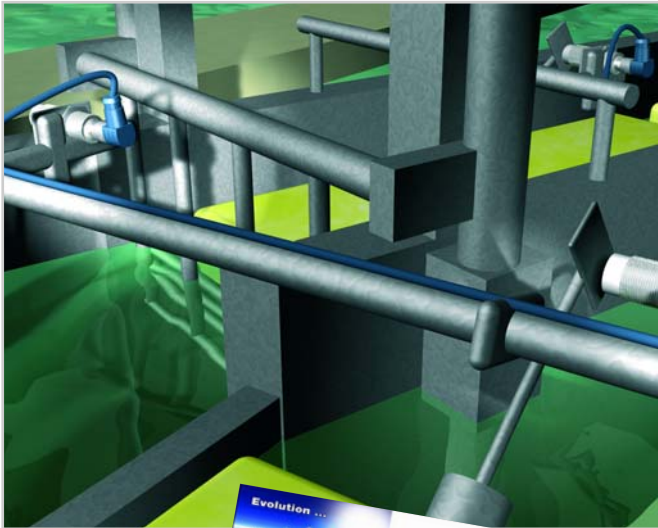


uprox[®]+

HIGHEST SWITCHING DISTANCE & FACTOR 1

uprox®+ - POSITION DETECTION WITHOUT ANY COMPROMISES

Whether for dairies, breweries, the manufacture of bakery products and frozen foods, or for packaging and filling applications in the food industry: The new **uprox®+** sensors offer the perfect solution for all requirements of the food and beverage production. Utilise their unique performance spectrum for effective process optimisation – and thus for distinct cost reductions!



uprox®+ sensor of the WD series are resistant against cleaning agents and high pressure steam jet cleaning



High system availability

Due to the resistance of the sensor's housing materials against cleaning agents and disinfectants, the excellent sealing of the housing and the high level of EMC of the electronics, the new **uprox®+** sensors of the WD series (WD = wash-down) provide an extremely high degree of operational reliability, also in the harsh environment of the food producing and processing industry. Use these benefits to optimise your production processes.

- Less damage during the cleaning process due to prevention of the ingress of cleaning liquids via a novel double sealing system between front cap, threaded barrel and connector insert. As a result, the system's fail-safety is enhanced.
- Prevention of down-times due to the excellent resistance of the materials used against acid and alkaline cleaning agents and disinfectants.
- Shorter down-times based on the high availability of spare parts at lower costs
- High interference immunity due to a high level of EMC
- Material suitability for the food industry certified by an independent test laboratory (Henkel Ecolab)

Highest switching distance

Owing to their novel patented coil technology, **uprox®+** sensors feature a switching distance that is up to 250% higher than that of conventional inductive sensors with a ferrite core. This means that the sensor is superior to any standard sensor of the same size. Make use of this outstanding performance to optimise your applications!



Factor 1

The innovative **uprox®+** sensors set a new benchmark in metal detection. They are capable of detecting materials such as iron, stainless steel, copper, aluminium and brass at the same high distance with the highest precision.



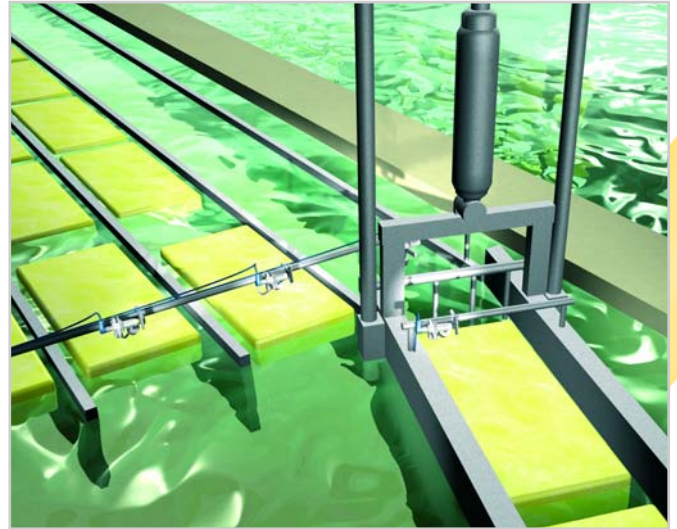
uprox[®]+ - PROCESS OPTIMISATION WITH AN INTELLIGENTLY STREAMLINED RANGE

Efficient standardisation

It's good news that several conventional sensors can be replaced by a single **uprox[®]+** sensor. You will profit from the associated reduction of sensor inventories.

The advantages of the new sensors:

- Only a few sensor variants needed to cover the entire range of applications
- Low average prices because there is no need for special devices and many sensor versions
- Reduced training requirements due to the lean product programme



M18 sensor with the highest switching distance for stainless steel

Essentially service-friendly

Owing to their highly flexible mounting options and their high switching distances, the new **uprox[®]+** sensors of the WD series accept significantly higher mechanical tolerances than conventional standard sensors.

These benefits will pay off for you:

- Simple adjustment due to highest switching distances
- A maximum degree of freedom in sensor installation and set-up due to partial embedding and recessed mounting modes, providing a high degree of operational safety
- Minimum maintenance due to a reduced variety of sensor types

Sensor sealing

A special double-lip seal of the individual housing components in the front cap area and at the connector insert prevent the ingress of liquids even during high pressure cleaning procedures. As a result, the **uprox[®]+** sensors even exceed the requirements of protection degree IP68 and IP69K by far!



Resistance

The materials of the WD series used for the threaded barrel (V4A; 1.4404; 316L) and the front cap (LCP Vectra 140) are resistant to all common acid and alkaline detergents and disinfectants. Consequently, damages through aggressive cleansers are avoided.




General technical data

Operational voltage:	10...30 VDC
Operational current:	max. 200 mA
Output:	N.O, PNP
Ambient temperature:	0...85 °C
Housing material:	barrel material: stainless steel, V4A (1.4404/316L)
Front cap material:	Vectra 130 (LCP)
Max. pressure on front cap:	M12 = 20 bar M18 = 15 bar M30 = 10 bar
Type label:	laser-engraved

Housing type	Switching distance	Mounting	Connection	Type designation	Ident number
M12 x 1, L = 50 mm	4 mm		PVC cable 2 m	BI4U-EM12WD-AP6X	1634811
M12 x 1, L = 50 mm	4 mm		Connector, M12 x 1	BI4U-EM12WD-AP6X-H1141	1634812
M12 x 1, L = 50 mm	10 mm		PVC cable 2 m	NI10U-EM12WD-AP6X	1634813
M12 x 1, L = 50 mm	10 mm		Connector, M12 x 1	NI10U-EM12WD-AP6X-H1141	1634814
M18 x 1, L = 50 mm	8 mm		PVC cable 2 m	BI8UEM18WD-AP6X	1634815
M18 x 1, L = 50 mm	8 mm		Connector, M12 x 1	BI8UEM18WD-AP6X-H1141	1634816
M18 x 1, L = 50 mm	15 mm		PVC cable 2 m	NI15U-EM18WD-AP6X	1634817
M18 x 1, L = 50 mm	15 mm		Connector, M12 x 1	NI15U-EM18WD-AP6X-H1141	1634818
M30 x 1,5, L = 60 mm	15 mm		PVC cable 2 m	BI15UEM30WD-AP6X	1634819
M30 x 1,5, L = 60 mm	15 mm		Connector, M12 x 1	BI15UEM30WD-AP6X-H1141	1634820
M30 x 1,5, L = 60 mm	30 mm		PVC cable 2 m	NI30U-EM30WD-AP6X	1634821
M30 x 1,5, L = 60 mm	30 mm		Connector, M12 x 1	NI30U-EM30WD-AP6X-H1141	1634822

Preference items

Test procedure
Henkel-Ecolab test method R&D-P3-E Nr. 37

Withstand and immersion

test: complete immersion in the test medium

Test duration: 14 days

 Evaluation: gravimetric analysis; mass differential in %,
visual assessment of
swelling,
embrittlement,
change of colour,
comparison with
the zero value
(demineralized
water)

• IP68 including IP67:

- 24 hours continuous storage at +70 °C
- 24 hours continuous storage at -25 °C
- 7 days submersion, 1 m depth
- 10 temperature shock cycles from +70 °C to -25 °C, dwell cycle per temperature: 1 hour

• IP69K:

 suited for high pressure steam jet cleaning to
DIN 40050-9 following EN 60529

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