



# CAPACITIVE PROXIMITY SWITCHES

KNS EXTENDED

 **di-soric**

# KNS EXTENDED WITH IO-LINK

**Switching distance from 0.2 to 12 mm, flush, non-flush, cable and plug variants.**

Our KNS Extended capacitive proximity switches with IO-Link are ideally suited for highly precise applications in the electronics and automobile industry and other industries in which materials and components may need to be detected precisely in production processes. Thanks to IO-Link, the integration of KNS Extended sensors into the control system is simpler and new diagnostic functions provide additional benefits for reducing the risk of faulty work by the sensors.

## Highest degree of flexibility during integration

KNS Extended IO-Link switches are available in the smallest sizes in Ø 6.5 mm, M8 and M12. All of them have flush and non-flush installation formats - with cable and plug connectors.



## Benefits of the series KNS Extended with IO-Link:

- Large switching distance for reliable object detection
- IO-Link interface
- Sensitivity adjustable via IO-Link
- NO/NC, switchable via IO-Link
- Quantitative and qualitative diagnostics via IO-Link
- Push-pull output pnp + npn
- Robust stainless steel and galvanized brass housing
- Short design with a length of only 45 mm for space-saving installations



### IO-Link



### Qualitative and quantitative diagnostics:

- Analysis of process stability and teach-in quality (qualitative)
- Current process values, min/max, teaching and switching point (quantitative)



### Easy maintenance

- Device swapping without manual intervention or specialized knowledge thanks to IO-Link 1.1 with data storage in the master
- Smart Sensor Profile – Fully compliant with standards

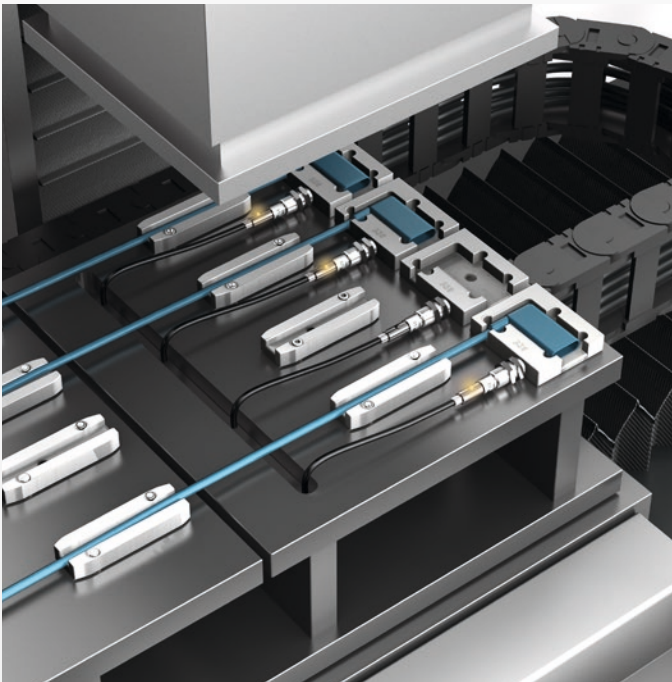
## AT A GLANCE

Design	Installation	Switching distance	Housing material	Switching output	Connection	Protection class
Short housing length	D6.5	Flush	Stainless steel	IO-Link	Cable	IP65
	M8	Non-flush	Brass	PP	Connector	IP67
	M12			NO/NC		

# KNS EXTENDED WITH IO-LINK APPLICATIONS

## Capacitive sensors for non-contact and wear-free detection

The KNS Extended series with IO-Link is especially suited for applications in the electronics industry, e.g. for mounting plug connectors or for position checking of circuit boards. Further areas of application are found in the automobile industry, such as the detection of plastic parts during assembly of headlights or cockpits. The KNS Extended series is especially well suited for the wood and furniture industry, where they reliably detect boards and planks in automated assembly machines.



### Plug detection

KNS M08KM 2B G3-T3

Capacitive proximity switches from di-soric provide non-contact and wear-free detection of plastic plugs – and do so reliably even in the presence of interference such as dirt.

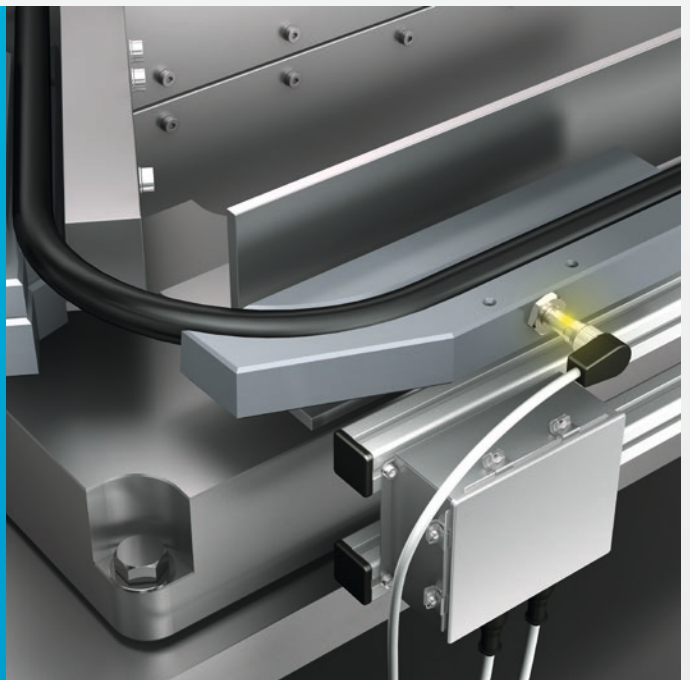
The detection of plugs is stored in the control system and made available to the quality assurance system as a data record. This way, it is possible to guarantee that each plug has been placed in the manufacturing step.

### Detection of plastic pipes

KNS M08KM 2B G3-T3

The capacitive proximity switch detects whether a plastic pipe for automobiles is located in the assembly opening.

With the IO-Link Smart Sensor Profile, this sensor can be configured such that it detects specific pipe material. Any potential work area contamination is compensated by the functional reserve.



# KNS EXTENDED WITH POTENTIOMETER

Switching distance from 0.2 to 8 mm, flush, non-flush, cable and plug variants.

Our capacitive proximity switches detect liquid, powdery and solid materials precisely and reliably. They are equally suitable for the detection of metallic and non-metallic parts. Parts can also be detected through container walls or packaging.

The sensitivity and NO/NC switching is adjusted by way of multiturn potentiometers.

## Highest degree of flexibility during integration

KNS Extended switches are available in the smallest sizes in Ø 6.5 mm, M8 and M12. All of them have flush and non-flush installation formats - with cable and plug connectors.



## Benefits of the series KNS Extended with potentiometer:

- Large switching distance for reliable object detection
- Detection of liquids, powdery and solid materials
- Detection possible even through containers and packages
- Simple and intuitive sensitivity adjustment via multiturn potentiometer
- NO/NC, switchable
- Push-pull output pnp + npn
- Robust stainless steel housing

## AT A GLANCE

Design	Installation	Switching distance	Housing material	Switching output	Connection	Protection class
Long housing length	D6.5 M8 M12	Flush Non-flush	From 0.2 mm up to 8 mm	Stainless steel	PP NO/NC	IP65

# KNS EXTENDED WITH POTENTIOMETER APPLICATIONS

## Capacitive sensors for non-contact and wear-free detection

The capacitive switches in the KNS Extended series with potentiometer are robust switches that offer more than a standard design. They are especially well suited for primary packaging, for detecting contents through containers or packaging.

Further applications are found in the process industry in the detection of liquids, powders and solid materials. Their strength is very precisely detecting non-metallic, solid materials via their high degree of sensitivity.



### Object detection and check for filling

KNS M12M 04B G3-2R

Reliable detection of non-metallic objects such as plastic containers or wafers is just one of the advantages of our capacitive proximity switches.

This application also checks simultaneously whether or not a container is filled.

### Fill level measurement

KNS M12M 04B G3-2R

The non-contact operating principle and flush installation on the non-conductive container wall make our capacitive proximity switches exactly the right tools for detecting aggressive liquids.

Of course, the KNS switches also reliably detect the fill-level heights of harmless liquids, powders, granulates and bulk solids in plastic or glass containers.



**SOLUTIONS. CLEVER. PRACTICAL.**

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