CAPACITIVE PROXIMITY SWITCHES KNS

WITH POTENTIOMETER

di-soric

CAPACITIVE PROXIMITY SWITCHES
KNS WITH POTENTIOMETER

THE NEW KNS SERIES FOR SURFACE-INDEPENDENT DETECTION OF NEARLY ALL MATERIALS.

Our KNS capacitive proximity switches reliably detect liquid, powdered and solid materials, metallic and non-metallic parts—through non-conductive container walls or packaging.

Reliable detection

- of liquid, powdered and solid materials
- of metallic and non-metallic parts
- through non-conductive container walls or packaging

In 6 seconds

ready to use

Large detection range

for maximum flexibility in the applications

Shortest designs

lengths of 52 mm or more with 6.5 mm diameter, M8 and M12

IP67 protection class

KNS withstand harsh ambient conditions in a temperature range from -25 to +70 °Celsius

360° switching indicator

- LED near the plug clearly visible from all around
- LED flashes once briefly at approx. 5% and approx. 95% of the resistance

Flush or not

Ø6.5 and M8. M12 only flush

M8/M12 standard plug connector

and cable variants with 2 m connecting cable

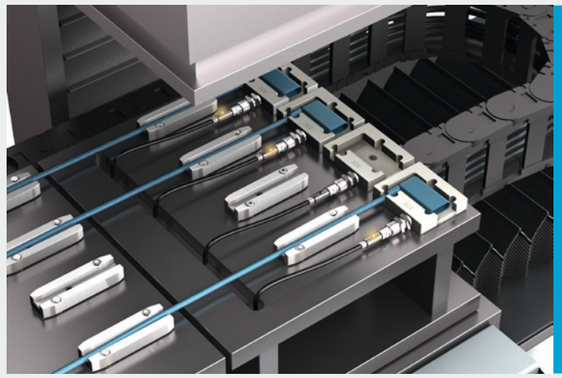
Setting the switching distance using a multi-turn potentiometer

without through-switching of the potentiometer position with end stop indicator in both directions

CAPACITIVE APPLICATIONS –
MATERIAL-INDEPENDENT DETECTION

WE HAVE EXACTLY THE CAPACITIVE SENSORS YOU NEED TO ACHIEVE MAXIMUM PERFORMANCE WITHIN A MINIMAL INSTALLATION SPACE.

It makes almost no difference what you are manufacturing or working with in your manufacturing process—the KNS series provides reliable and trouble-free detection of practically all materials. Either flush or not-flush with Ø6.5 as M8 and flush as M12, with plug connector or cable.



Plug detection

KNS M8M 02B 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 or strong incident light.

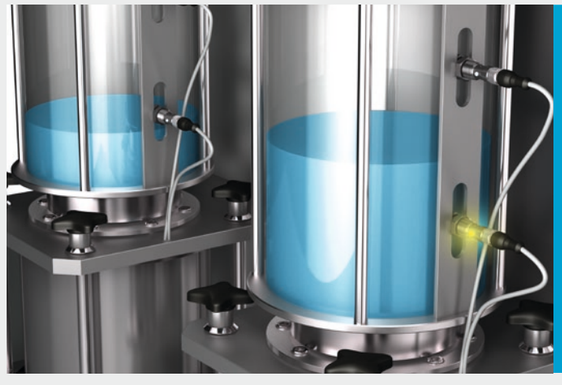
The detection of plugs is stored in the control system and made available to the quality assurance system as a data record. This way, it is possible to guarantee that each plug has been placed in the manufacturing step.

Object detection and check for filling

KNS M12M 04B G3-2R

Reliable detection of non-metallic objects such as plastic containers, wafers and printed circuit boards is just one of the advantages of our capacitive proximity switches.

This application also tests 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.

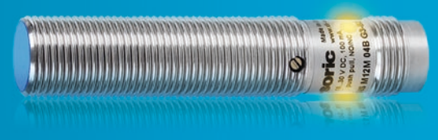
Of course, the KNS switches also reliably detect the fill-level heights of harmless liquids, powders, granulates and bulk solids in plastic or glass containers.

THE KNS SERIES WITH POTENTIOMETER
6.5 MM DIAMETER – CABLE / PLUG

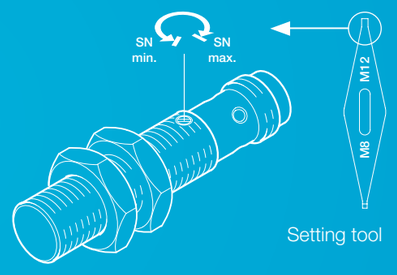
KNS
M08 / M12 – CABLE / PLUG

Type	KNS D6.5M 02B G3-2R	KNS D6.5M 02B G3-T3	KNS D6.5M 03N G3-2R	KNS D6.5M 03N G3-T3	KNS M8M 02B G3-2R	KNS M8M 02B G3-T3	KNS M8M 03N G3-2R	KNS M8M 03N G3-T3	KNS M12M 04B G3-2R	KNS M12M 04B G3-B3
Setting tool										
Design	Ø6.5	Ø6.5	Ø6.5	Ø6.5	M8	M8	M8	M8	M12	M12
Length	52 mm	60 mm	52 mm	60 mm	52 mm	60 mm	52 mm	60 mm	55 mm	60 mm
Switching distance	2 mm (0.1 to 3.0 mm)	2 mm (0.1 to 3.0 mm)	3 mm (0.1 to 4.0 mm)	3 mm (0.1 to 4.0 mm)	2 mm (0.1 to 3.0 mm)	2 mm (0.1 to 3.0 mm)	3 mm (0.1 to 4.0 mm)	3 mm (0.1 to 4.0 mm)	4 mm (0.1 to 8.0 mm)	4 mm (0.1 to 8.0 mm)
Flush	●	●			●	●			●	●
Non-flush			●	●			●	●		
Switching output	Push-pull, 100 mA, NO/NC	Push-pull, 100 mA, NO/NC	Push-pull, 100 mA, NO/NC	Push-pull, 100 mA, NO/NC	Push-pull, 100 mA, NO/NC	Push-pull, 100 mA, NO/NC	Push-pull, 100 mA, NO/NC	Push-pull, 100 mA, NO/NC	Push-pull, 100 mA, NO/NC	Push-pull, 100 mA, NO/NC
Sensitivity adjustment	Potentiometer	Potentiometer	Potentiometer	Potentiometer	Potentiometer	Potentiometer	Potentiometer	Potentiometer	Potentiometer	Potentiometer
Operating voltage	18 to 30 V	18 to 30 V	18 to 30 V	18 to 30 V	18 to 30 V	18 to 30 V	18 to 30 V	18 to 30 V	18 to 30 V	18 to 30 V
Ambient temperature	–25 to +70 °C	–25 to +70 °C	–25 to +70 °C	–25 to +70 °C	–25 to +70 °C	–25 to +70 °C	–25 to +70 °C	–25 to +70 °C	–25 to +70 °C	–25 to +70 °C
Protection class	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67
Housing material	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Cable	2 m		2 m		2 m		2 m		2 m	
Plug connector		M8		M8		M8		M8		M12
Connection cable (accessories)	VK ...	VK ...	VK ...	VK ...	VK ...	VK ...	VK ...	VK ...	VK ...	VK ...

Fast start-up, thanks to 360° switching indicator near the plug



- End stop indicator (both directions)
- LED flashes once briefly at approx. 5% and approx. 95% of the resistance



Setting tool

Easy and safe to handle

Setting the switching distance using a multi-turn potentiometer:

Turning the potentiometer clockwise increases the switching distance, turning it counterclockwise decreases the switching distance.

The KNS series does not allow for permanent through-switching, due to the potentiometer positioning

SOLUTIONS. CLEVER. PRACTICAL.

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