

## S083 Specification – P8964 Detectable Calculator



The **Klipspringer Detectable Calculator** is designed to reduce the risk of foreign body contamination. These types of item can be easily dropped, broken or lost in production, where it could easily contaminate food or beverage items which could then lead to loss of production time, materials that cannot be used or at worst product recalls or consumer injury.

The **Klipspringer Detectable Calculator** solves this problem as it is manufactured with detectable materials. The case and stainless steel lanyard being both metal detectable and x-ray detectable\* and the food grade silicone buttons metal detectable\*.

The product is also designed putting Food Safety first with:

1. Food grade materials, which are easy wiped over for cleaning.
2. Minimal bug taps, which could harbor harmful bacteria.
2. Fully sealed unit, solar powered, so no need to remove batteries or dismantle unit.

Doc Ref	Issue date	Issue No	Revision Date	Issued by
S083	20-11-17	001	NA	S Britton

## Specification

Casing Material:	Food Grade Polypropylene
Button Material:	Food Grade Silicone
Lanyard Material:	316 Grade Stainless Steel
Internal Materials:	Rechargeable Lithium battery, assorted wiring and circuitry.
Dimension:	120 x 68 x 8mm
Lanyard length:	1000mm (318mm Ø)

## Additional Food safety advice (Guidance only)

This calculator is designed not to require removal or changing of the batteries and is intended to be used as a sealed unit only. If the unit is opened, then it is no longer recommended for use in a food manufacturing or processing environment.

\*Detectable materials, although reduce a sites risk on contamination cannot eliminate it due to various factors. Detection via metal detection or X-ray units is very dependent of the detection unit used and a number of actors such as:

1. The size of the aperture
2. The properties of the food stuff which is contaminated.
3. The presentation/orientation of the piece entering the detection device.
4. The size of the piece to be detected.

It is recommended that a site conducts testing by a trained and certified professional to fully understands the capabilities of such detection devices on their site as part of their risk assessment processes. The detectable device manufacturer, should be able to assist you with this.

The stainless steel lanyard is also designed to allow the clasp to break if the lanyard is under sudden pressure, to avoid a choke or strangulation hazard to the wearer. We recommend that appropriate Health and safety and food safety risk assessments are conducted before the item is put into use.

The materials used for the casing, button and lanyard are made from food grade materials. These are designed to be used in a food manufacturing and processing environment, where they might come into contact with food or beverage items occasionally. They are not intended for frequent contact however. The food grade silicone button only contain ingredients checked against the latest update of CFR21 FDA 177-2600 at levels below those permitted.

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## Food Contact Status

This product is manufactured in line with relevant requirements of the 2023/2006/EC on good manufacturing practice (GMP) for materials and articles intended to come in contact with food.

The raw material, Polypropylene (Blue) used in the manufacturing process of the product meet the relevant requirements of EU regulations 1935/2004 as amended up to 202/2014/EC on materials and articles intended to come into contact with food.

All monomers, starting substances and additives used to manufacture these grades are listed in commission regulations No.10 (2011) on plastic materials and articles intended to come in contact with food. Applicable restrictions on monomers, additives etc. (SML, QM) are available on request. The finished articles are required to meet the Overall Migration Limit (OML) of 10 mg/dm(sq) or 60 mg/Kg food. Colourants used are compliant with European Council Resolution AP (89) 1 on the use of colourants on plastic materials coming into contact with food.

The detectable calculator in blue is compliant with Direction 1895/2005/EC on the restriction of use of certain epoxy derivatives (BADGE, BFDGE, NOGE), since the latter substances are not intentionally used in the manufacturing process of this product.

The following overall migration results for sample plaques of this materials obtained using a UKAS accredited laboratory, with the full report available upon request.

## Overall migration according to EU Commission Regulation (EU) No.10 (2011) on plastic materials and articles intended to come into contact with food:

Method	Simulant A (10% v/v Ethanol (2 Hours @ 70°C))	Simulant B (3% w/v Acetic Acid (2 Hours @ 70°C))	Simulant C (Olive Oil (2 Hours @ 70°C))
Replicate #1	0.5mg/dm <sup>2</sup>	0.1mg/dm <sup>2</sup>	2.6mg/dm <sup>2</sup>
Replicate #2	0.7mg/dm <sup>2</sup>	0.0mg/dm <sup>2</sup>	2.9mg/dm <sup>2</sup>
Replicate #3	0.8mg/dm <sup>2</sup>	0.2mg/dm <sup>2</sup>	3.3mg/dm <sup>2</sup>
Replicate #4	-	-	2.7mg/dm <sup>2</sup>
Mean Result	<b>0.7mg/dm<sup>2</sup></b>	<b>0.1mg/dm<sup>2</sup></b>	<b>2.9mg/dm<sup>2</sup></b>
EU LIMIT	10.0mg/dm <sup>2</sup>	10.0mg/dm <sup>2</sup>	10.0mg/dm <sup>2</sup>
EI Compliance	<b>COMPLIANT</b>	<b>COMPLIANT</b>	<b>COMPLIANT</b>

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## Specific Migrations according to the EU Commission Regulation (EU) No. 10 (2011) on plastic materials and articles intended to come into contact with food.

Substance	Test Simulant	Test Temp	Time	EU Limit	Result	EU Compliance
Barium	3% Acetic Acid	40°C	1 Hour	1000µ/kg	146µ/kg	<b>COMPLIANT</b>
Bis(2-ethylhexyl)phthalate DEHP	Olive Oil	40°C	1 Hour	1500µ/kg	-	<b>COMPLIANT</b>
Bis(n-butyl)phthalate DBP	Olive Oil	40°C	1 Hour	300µ/kg	-	<b>COMPLIANT</b>

### Statement of EU Food Contact Compliance

The detectable calculator P8964 complies with EU regulations and is therefore authorised to come into direct contact with all types of food stuffs at a maximum temperature of 40°C for a maximum permitted time of 1 hour.

This document was prepared on behalf of Klipspringer Ltd and the information included is to the best of our knowledge correct at the time of writing. Klipspringer offers the information within this document as a guide only, they do not represent any guarantee of the prescribed products in the sense of the legal guarantee regulations. It is the responsibility of the end user to ensure the items purchased are suitable for the intended application.

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 20-11-2017

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