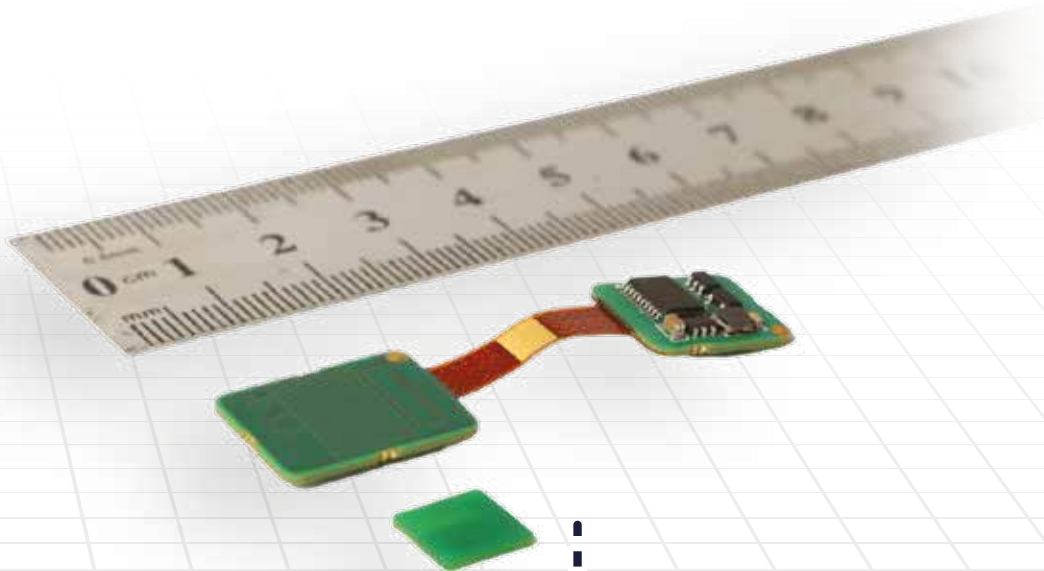


# **μFREE™**

## Micro Sized Capacitive Linear Encoder



- Miniaturized Encoder
- Cable-free Readhead Motion

- Customizable
- Less than 4mm Height

## MINIATURE LINEAR ENCODER WITH CABLE-FREE READHEAD

Based on the FREEE™ technology, KappaSense's  $\mu$ FREEE™ platform is a miniaturized linear encoder with a readhead that is completely passive & Cable-less. It offers super-compact size & height, which allows engineers to design a linear measuring solution that is not consuming important real estate.

The  $\mu$ FREEE™ is customizable, allowing implementation into existing designs and replacement of mechanisms in order to achieve better accuracy & reliability.

Combined with the advantages of KappaSense's Capacitive technology, the  $\mu$ FREEE™ is a great solution for high-accuracy linear applications where there are space constraints.

## TECHNICAL SPECIFICATION

Encoder Parameter	Value
<b>Motion Type</b>	Miniature Linear encoder
<b>Encoder Type</b>	Incremental with index
<b>Encoder Interface</b>	AquadB + Index
<b>Stroke length</b>	4 - 300 [mm]
<b>Accuracy</b>	$\pm 20$ [ $\mu$ m]
<b>Resolution</b>	0.5 [ $\mu$ m]
<b>Repeatability</b>	$\pm 1$ [ $\mu$ m]
<b>Maximum operating speed</b>	0.2 [m/sec]
<b>Operating temp range</b>	0 $\div$ 85 [ $^{\circ}$ C]
<b>Permissible relative humidity</b>	<90 [%]
<b>Roll , Pitch , Yaw</b>	$\pm 1$ [Deg]
<b>Power Consumption</b>	5V 150mA

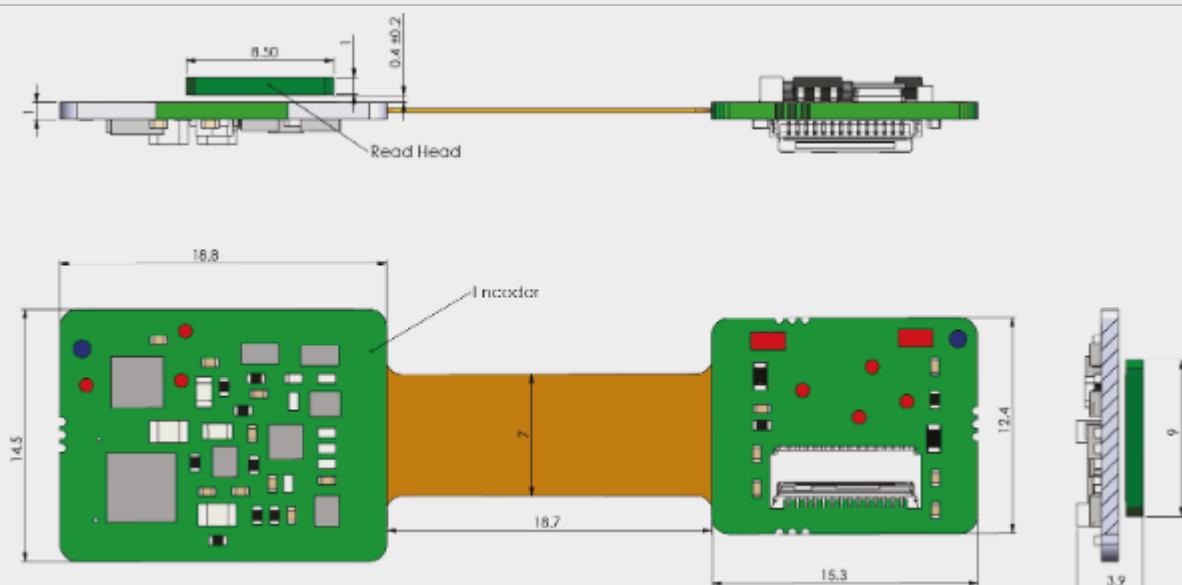
## KEY FEATURES

- > Miniature size
- > Customizable Length
- > Cable free readhead motion
- > Contamination Immunity, dust, grease and more
- > Resilient to vibration and shock

## APPLICATIONS

- > Motion Applications requiring small space solution
- > Medical Robotics
- > Optical Lenses control
- > Micro Linear Applications
- > Challenging environments

## MECHANICAL DIMENSIONS











Mechanical Dimensions are for reference, contact KappaSense for all options



## Micro Sized Capacitive Linear Encoder

### 8 Good reasons for choosing KappaSense Capacitive Linear Encoders (C.L.E)

- 1 |  Capacitive, Absolute, Linear Encoder
- 2 |  Installation Flexibility
- 3 |  Temperature Range
- 4 |  Cable Free Readhead
- 5 |  Limited Liquid Sensitivity
- 6 |  No Magnetic Sensitivity
- 7 |  Limited Dust Sensitivity
- 8 |  Flagship machines  
Field-proven in  
flagship machines

HOW CAN WE ASSIST YOU?  
**You are always welcome to contact us.**



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