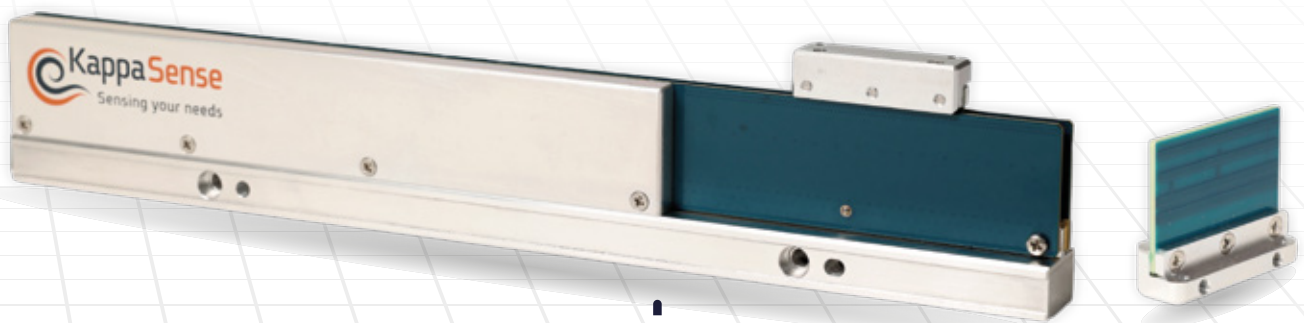


FREE^e™

Cable-Free Readhead Absolute Encoder



- Cable-free, ultra light readhead
- Wide mechanical tolerances

- Multiple Readheads
- Harsh environment

LINEAR ENCODER WITH CABLE-FREE READHEAD

KappaSense's FREEe™ is a linear encoder technology platform in which the readhead is a passive device weighing only 3 grams. This means that, with this encoder, moving cables are not required! All the encoder cabling is static and connected to the scale.

A primary factor of concern in linear motion systems is the robustness of the cables that are connected to the moving element. The FREEe™ solution enhances machine reliability by obviating the need for moving encoder cables.

In addition, KappaSense's encoders offer wide mechanical tolerances & Harsh Environment operation which makes it suitable for myriad applications.

TECHNICAL SPECIFICATION

Encoder Parameter	Value
Encoder Type	Absolute / Incremental
Encoder Interface	BiSS C
Stroke length	280 / 800 / * mm
Accuracy	±5µm
Resolution	0.5 µm
Repeatability	±1 µm
Operating Speed	6 m/sec
Operating temp range	-40 ÷ 85 °C
Power Consumption	5V 0.3A
Roll, Pitch, Yaw	±0.5°
Lateral Offset	±0.5mm
Stand-off Tolerance	±1mm

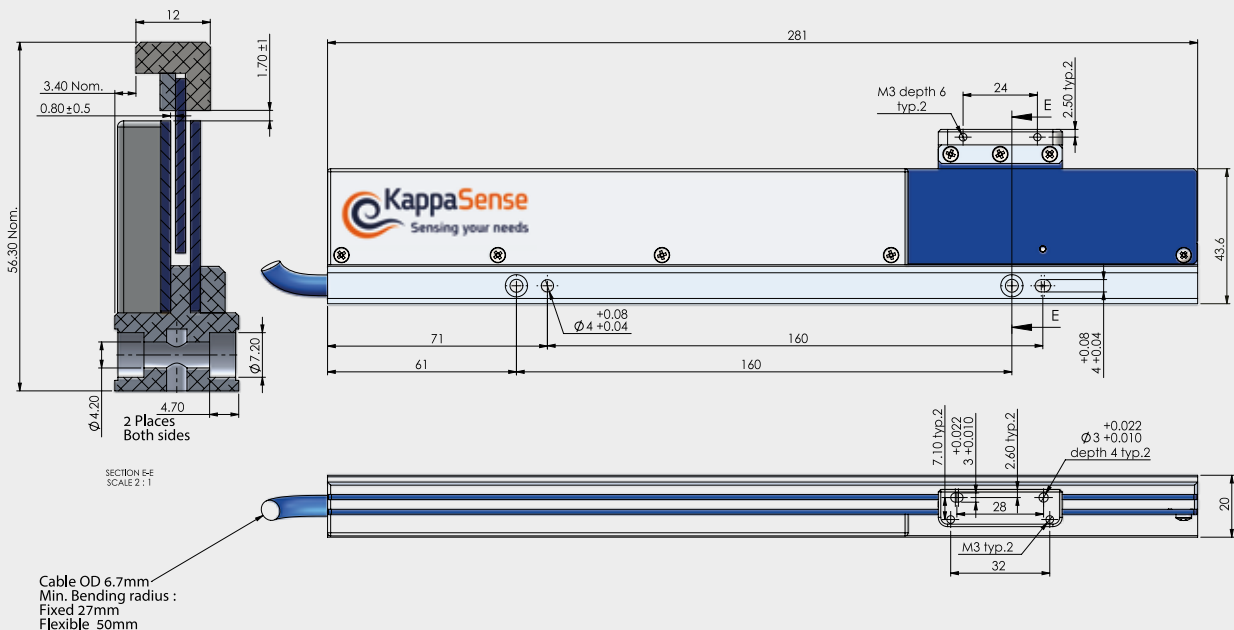
KEY FEATURES

- > Cable-free Readhead motion
- > Extended installation tolerance
- > Contamination Immunity, dust, grease and more
- > Customizable
- > Resilient to vibration
- > Immunity to magnetic fields
- > Wide temperature range

APPLICATIONS

- > Machine Automation
- > Printing
- > Laser & CNC
- > Medical Equipment
- > Linear motors & Stages
- > Optical
- > Challenging environments (Temp, Vibrations Dirt)

MECHANICAL DIMENSIONS



Mechanical Dimensions are for reference, contact KappaSense for all options

ORDERING INFORMATION

	FREE	0280	A	B	S	01	001
Description	Product Family		Sensing	Communication		# of Readheads	Factory Specific
options	Free	280 (240)	A - Absolute	B - BiSS C	S - Standard	01- Single	
		800 (760)	I - Incremental*	S - SSI*	V - Vacuum*	02- Dual*	
		*					

* Contact for Availability

MULTIPLE READHEADS

Kappasense FREEe™ platform can offer the ability to implement multiple number of Readhead on a single linear scale, thereby giving the ability to control more than 1 load on the same axis with a single encoder.

The benefit is substantial:

- > BOM cost reduction
- > HW space consumption reduced
- > Less Weight
- > Absolute position

Applications:


- > Linear Transport Systems / Track Systems
- > Conveyors
- > Multi-lenses Optical devices



FREE[™]e

Cable-Free Readhead Absolute 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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