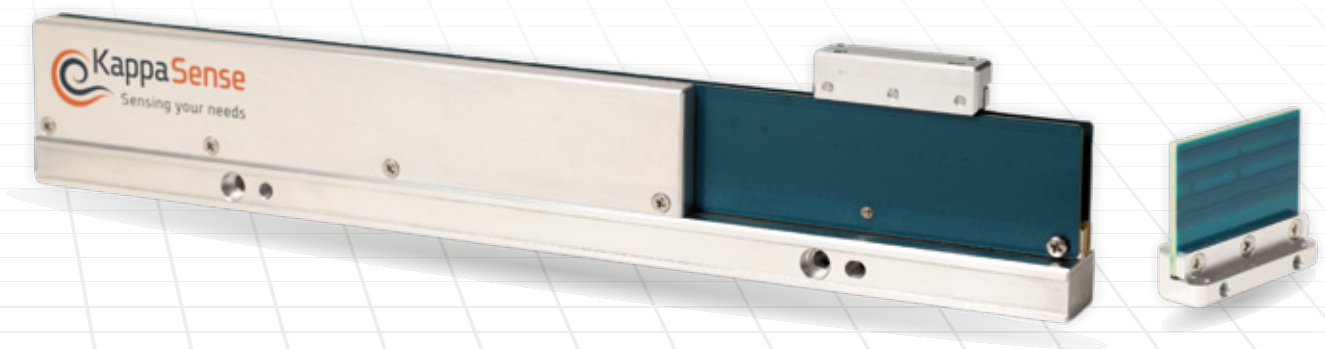


FREE^e™

Cable-free Readhead Absolute Linear 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 | See ordering information table |
| 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 |

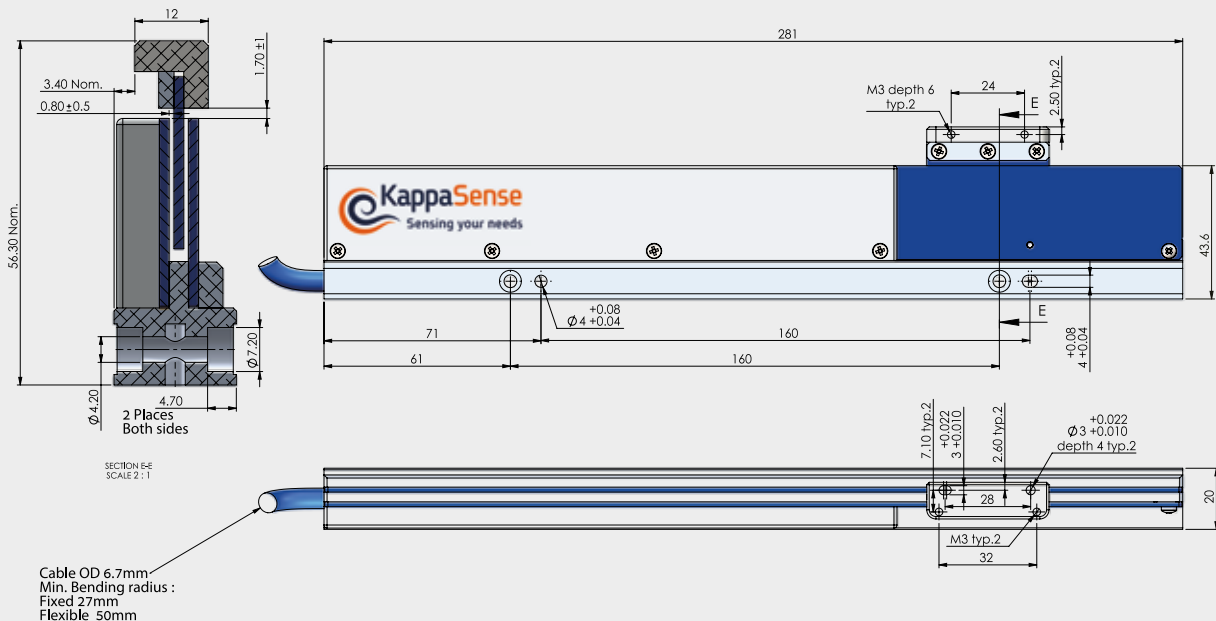
KEY FEATURES

- 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
- CNC & Laser Printing
- Medical Robotics
- Linear motors & Stages
- Electro-Optical control
- Challenging environments (Temperature, Vibrations, Dirt)

MECHANICAL DIMENSIONS



Mechanical Dimensions are for reference, contact KappaSense for all options

ORDERING INFORMATION

| | FREE | 0260 | A | B | S | 01 | 001 |
|-------------|----------------|------------------|------------------|---------------|--------------|----------------|------------------|
| Description | Product Family | Measuring Length | Sensing | Communication | | # of Readheads | Factory Specific |
| options | Free | 0260 | A - Absolute | B - BiSS C | S - Standard | 01- Single | |
| | | 0310 | I - Incremental* | S - SSI* | V - Vacuum* | 02- Dual* | |
| | | 0580 | | | | | |
| | | 0820 | | | | | |

* Contact for Availability

MULTIPLE READHEADS

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

The benefits are 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 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 |  Field-proven in flagship machine

How can we assist you?
You are always welcome to contact us.



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