

## LF11

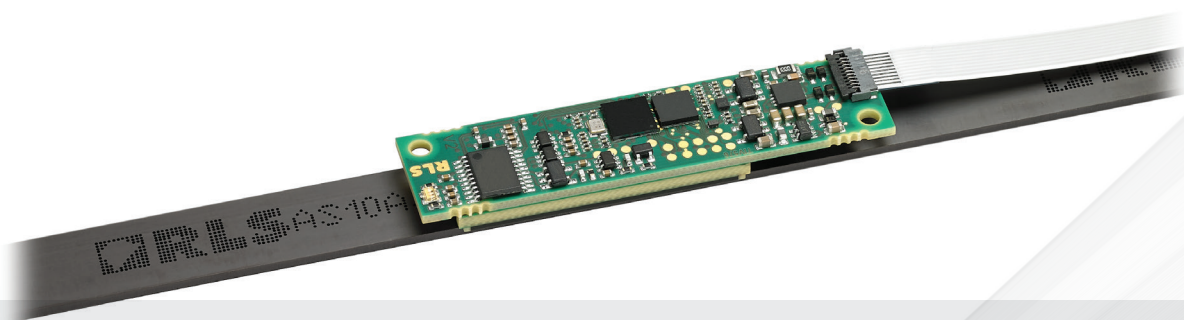
# Absolute Linear Magnetic Encoder System

LF11 is a board-level absolute linear magnetic encoder system designed for motion control applications as a position and velocity control loop element. The miniature design and low weight of the encoder system make it suitable for applications with limited space in relatively clean environments.

SMALL  
FOOTPRINT

LOW  
LATENCY

BISS C  
OUTPUT



## Why choose LF11?

### FEATURES:

- ✓ True absolute system
- ✓ Suitable for highly dynamic control loops
- ✓ Small footprint 50 × 12 × 5 mm
- ✓ Resolutions up to ~0.244 µm
- ✓ Axis lengths up to 16.3 m

### BENEFITS:

- ✓ Speeds up to 7 m/s at 0.976 µm resolution
- ✓ BiSS C unidirectional
- ✓ Compatible with RLS absolute magnetic scale AS10 and track system



SMT PICK AND  
PLACE



SPACE  
CONSTRAINT  
APPLICATIONS



LINEAR MOTOR



MEDICAL



ASSEMBLY LINES

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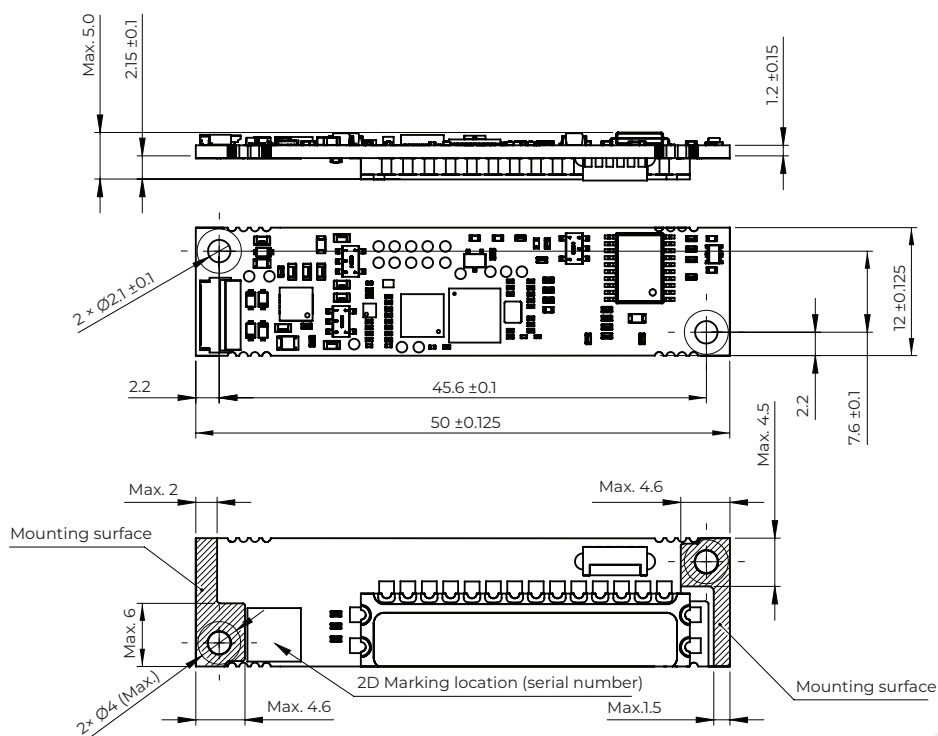
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# LF11 technical specifications

SYSTEM DATA	
Maximum length for AS scale	16.3 m
Incremental pole length	2 mm
System accuracy	$\pm 30 \mu\text{m/m}$ at 0.2 mm ride height
Repeatability	$< 1 \mu\text{m}$
Hysteresis	$< 2 \mu\text{m}$ at 0.2 mm ride height
ELECTRICAL DATA	
Power supply	5 V $\pm 5\%$
Reverse polarity protection	Yes
Set-up time after switch-on	$< 1\text{s}$
Current consumption	$< 160 \text{ mA}$ at 5 V power supply (without load)
Max. flex cable length	610 mm
MECHANICAL DATA	
Mass	Readhead 3 g
	Magnetic scale 60 g
Connector	FH34SRJ-10S-0.5SH (50), RoHS approved
ENVIRONMENTAL DATA	
Temperature	Operating 0 °C to +55 °C
	Storage -20 °C to +70 °C

## LF11 dimensions



All dimensions in mm.  
General tolerances: ISO 2768 m K

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