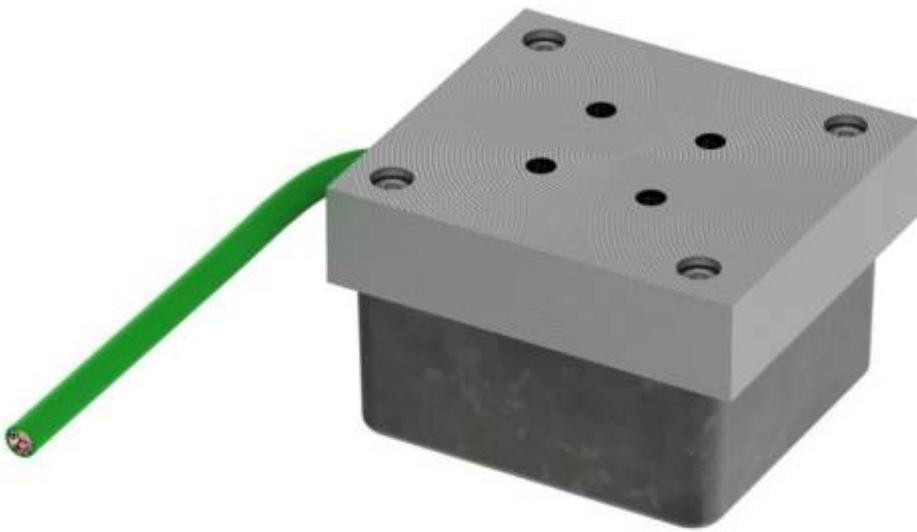


HSB (Hall sensor Box) linear positioning system

Overview

L-series motors can be provided with a linear encoder which can be mounted together with the primary part, without the need of an external stripe. Available feedback types are SIN/COS 1 Vpp.



Type code

HSB - 0 1 - L

Linear feedback series

Related motor size

0	From L030 to L100
1	From L150 to L250

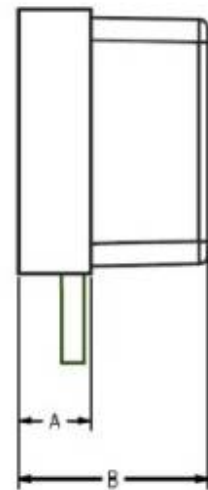
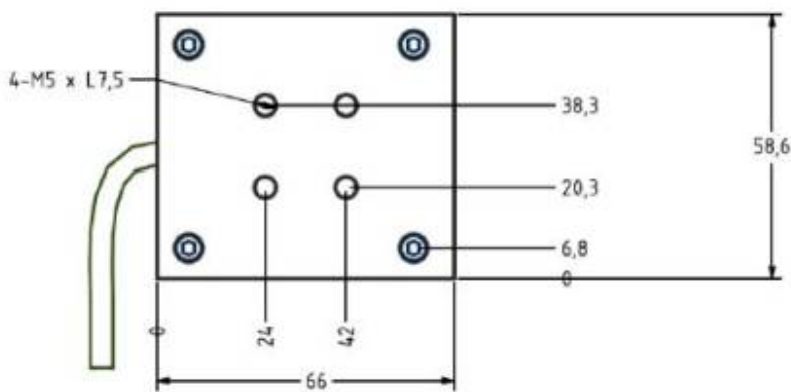
Feedback type

1	SIN/COS 1 Vpp
2	BiSS interface
3	Incremental A/B

Cable direction

L	Left (Same side as the power cable)
R	Right (Opposite to the power cable)

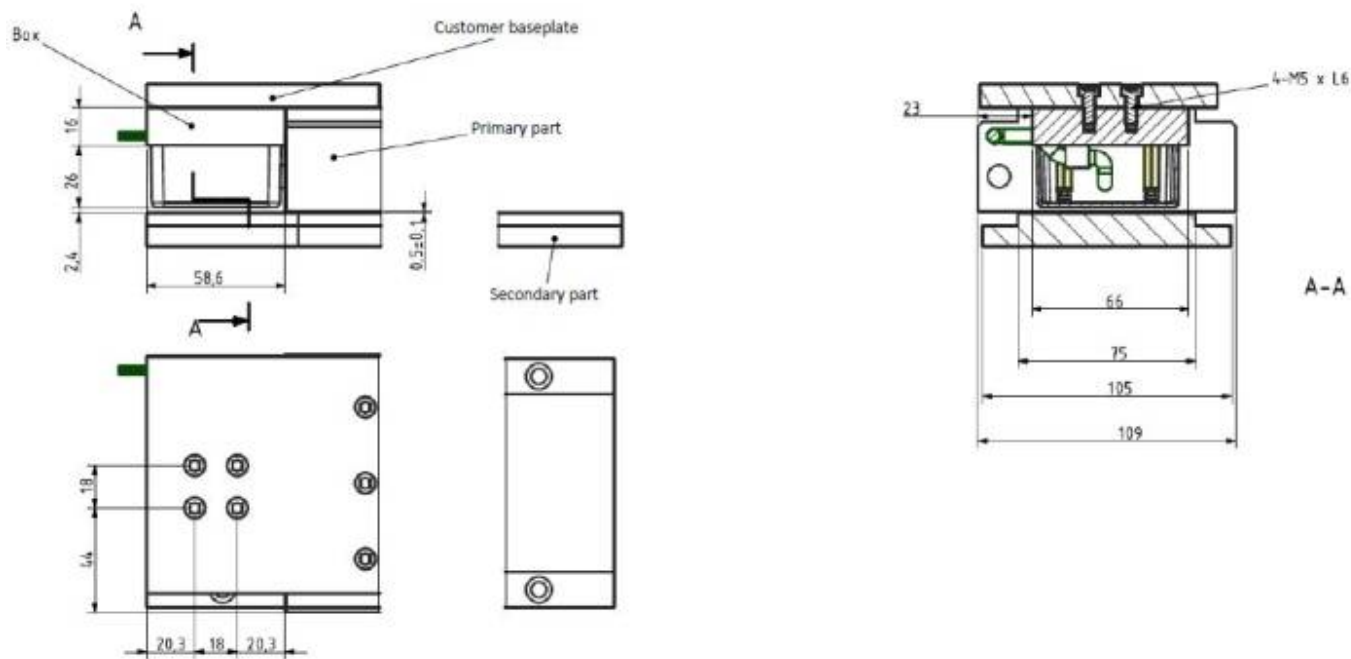
Mounting holes



	HSB-0x	HSB-1x
A	16	18
B	42	44

Mounting with the linear motor primary part

The HSB is supposed to be mounted in line with the primary part and overlapping the center of the secondary part. The following scheme shows an example of mounting with left cable direction.



Wire colors

HSB is equipped with PUR cable with lenght of 1 meter

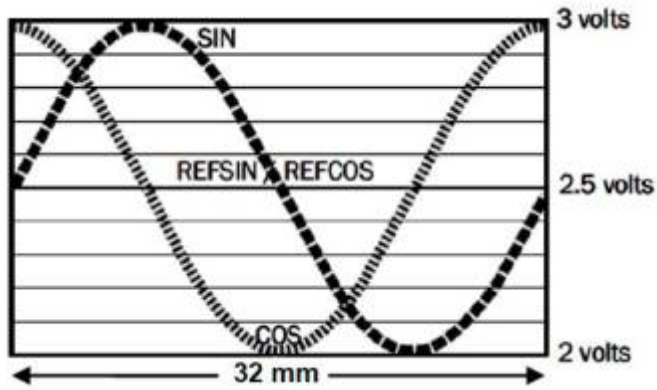


Color	Signal description
Red	+5VDC (Encoder power supply)
Blue	Ground (Encoder ground)
Yellow	SIN+
Green	SIN-
Gray	COS+
Pink	COS-

SIN/COS 1Vpp output signal

The HSB standard signal output type is SIN/COS 1Vpp, with a signal period corresponding to the pole pitch of the motore (32mm).

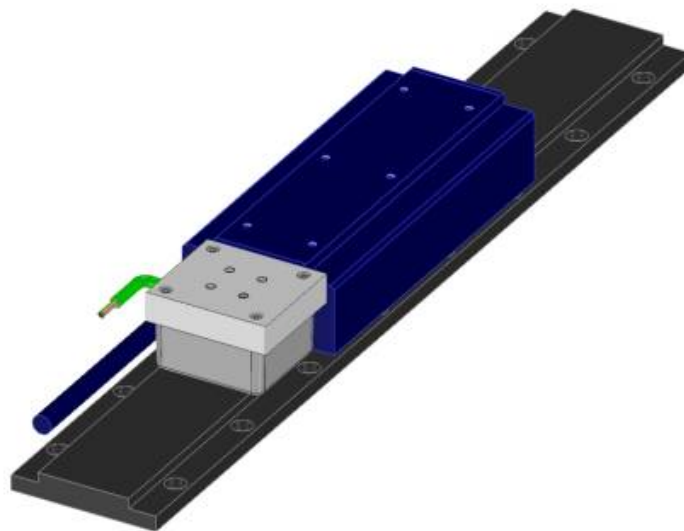
The signal output is of differential type with an amplitude of 0.5V per channels and a reference level of 2.5V.



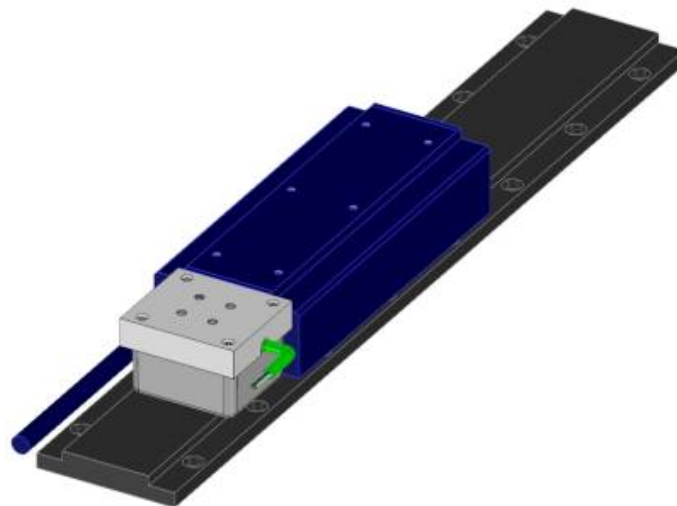
Mounting example

HSB-L version

3D Model file: [:ironcore_motors:hsb-01-l.zip](#)



HSB-R version



From:

<https://dokuwiki.nilab.at/> - **NiLAB GmbH**
Knowledgebase

Permanent link:

https://dokuwiki.nilab.at/doku.php?id=ironcore_motors:hsb_feedback

Last update: **2025/12/02 07:34**

